

**Social Intelligence and Cultural Intelligence as Predictors of National Identity
among Undergraduate Public University Students of Ethiopia**

A Dissertation Submitted to the School of Psychology in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy in Applied Social
Psychology

By

Dawit Demlie Messay

Email: dawitd344@gmail.com

Supervisor

Tamirie Andualem Adal (PhD), Associate Professor of Psychology

Addis Ababa University
College of Education and Language Studies
School of Psychology

June 2025

Addis Ababa, Ethiopia

Addis Ababa University
College of Education and Language Studies
School of Psychology

**Social Intelligence and Cultural Intelligence as Predictors of National Identity
among Undergraduate Public University Students of Ethiopia**

A Dissertation Submitted to the School of Psychology in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy in Applied Social
Psychology

By

Dawit Demlie Messay

Email: dawitd344@gmail.com

June 2025

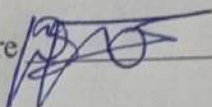
Addis Ababa, Ethiopia

Declaration

I, the undersigned, hereby declare that the PhD dissertation entitled "*Social Intelligence and Cultural Intelligence as Predictors of National Identity among Undergraduate Public University Students of Ethiopia*", conducted and submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Applied Social Psychology to the School of Psychology, College of Education and Behavioral Studies, Addis Ababa University, is an original work carried out by the researcher. It has not been submitted to this or any other institution for a similar academic purpose. All sources and materials used in the dissertation are properly acknowledged.

Name: Dawit Demlie Messay

Signature



Date

July 30, 2025

Addis Ababa University
College of Education and Behavioral Studies
School of Psychology

I hereby confirm that I have supervised the PhD dissertation entitled "*Social Intelligence and Cultural Intelligence as Predictors of National Identity among Undergraduate Public University Students of Ethiopia*" by Dawit Demlie Messay. The dissertation has reached its current form by incorporating comments provided at various stages of evaluation, including the early synopsis, proposal development, piloting, and upgrading defenses. I recommend that this final dissertation be accepted for evaluation.

Name: Tamirie Andualem Adal (PhD)

Signature



Date

July 30, 20

Addis Ababa University
College of Education and Language Studies
School of Psychology

Social Intelligence and Cultural Intelligence as Predictors of National Identity among
Undergraduate Public University Students of Ethiopia

Approved by the Board of Examiners

1. Supervisor

Name: Tamirke A. Signature: [Signature] Date: July 30, 2025

2. Chairperson

Name: Habteamu Wondimu (Prof.) Signature: [Signature] Date: July 30, 2025

3. Internal Examiner

Name: Nigatu Regassa (Prof.) Signature: [Signature] Date: July 30 / 2025

4. External Examiner

Name: Reda Dargel (Prof.) Signature: [Signature] Date: July 30. 2025

Table of Contents

Contents	Page
Title Page	i
Declaration	ii
Advisor Approval	iii
Board of Examiners Approval	iv
Table of Contents	v
List of Tables	ix
List of Figures	x
Acronyms and Abbreviations	xi
List of Publications from this Dissertation	xii
Abstract	xiii
Acknowledgement	xiv
CHAPTER ONE	1
Introduction	1
1.1. Background	1
1.2. Statement of the Problem	6
1.3. Objectives of the Study	13
1.3.1. Tangential Objective	13
1.4. Research Questions	13
1.4.1. Tangential Research Question	14
1.5. Significance of the Study	14
1.5.1. Theoretical Significance	14
1.5.2. Empirical Significance	15
1.5.3. Practical Significance	15
1.6. Delimitation	16
1.7. Limitations of the Study	17
CHAPTER TWO	19
Review of Related Literature	19
2.1. Conceptual and Theoretical Review	19
2.1.1. National Identity	19
2.1.2. Social Intelligence	24
2.1.3. Cultural Intelligence	27

2.2. Review of Empirical Studies	37
2.2.1. National Identity	37
2.2.2. Social Intelligence	39
2.2.3. Cultural Intelligence	40
2.3. Review of Methodological Approaches	42
2.3.1. National Identity	42
2.3.2. Social Intelligence	45
2.3.3. Cultural Intelligence	48
2.4. Theoretical Framework	51
2.4.1. Theory of Social Identity	51
2.4.2. Triarchic Theory of Intelligence	53
2.4.3. Integrating the Theories	55
2.5. Conceptualizations	57
2.5.1. Conceptualization of National Identity	57
2.5.2. Conceptualization of Social Intelligence	58
2.5.3. Conceptualization of Cultural Intelligence	59
2.6. Operationalizations.....	61
2.6.1. Operationalization of National Identity	61
2.6.2. Operationalization of Social Intelligence	63
2.6.3. Operationalization of Cultural Intelligence	64
CHAPTER THREE	66
Methodology	66
3.1. Research Paradigm.....	66
3.2. Research Design.....	66
3.3. Study Population	67
3.4. Participants of the Study.....	68
3.5. Study Area	69
3.6. Sample Size.....	70
3.7. Sampling.....	73
3.8. Instruments	75
3.8.1. National Identity	75
3.8.2. Social Intelligence	77
3.8.3. Cultural Intelligence	77
4.8.4. Social Desirability Responses.....	78

3.9. Instruments Adaptation, Translation, and Content Assessment Processes.....	79
3.10. Reliability and Validity of the Instruments.....	81
3.10.1. Reliability.....	81
3.10.2. Validity.....	83
3.11. Data Analysis	87
3.12. Overall Research Procedure.....	89
3.13. Ethical Considerations.....	92
CHAPTER FOUR	93
Results.....	93
4.1. Results of the Pilot Study	93
4.1.1. Checking for Outliers.....	94
4.1.2. Assessing Normality	95
4.1.3. Exploratory Factor Analysis.....	98
4.1.4. Confirmatory Factor Analysis	110
4.1.5. Measurement Equivalence of the Two Language Versions.....	119
4.1.6. Intercorrelations among Variables.....	126
4.2. Lessons Learned from the Pilot Study and Recommendations for the Main Study.....	128
2.3. Results of the Main Study	129
4.3.1. Demographic Information and Descriptive Statistics Results	129
4.3.2. Confirmatory Factor Analyses Results.....	130
4.3.3. Results of Students' Level of National Identity, Social and Cultural Intelligence	137
4.3.4. Results of the Correlation between National Identity and Social and Cultural Intelligence.....	137
4.3.5. Results of Multiple Regression.....	139
CHAPTER FIVE.....	151
Discussion	151
5.1. Instruments' Validations	151
5.1.1. The Amharic Version of the Ethiopian National Identity Measure.....	151
5.1.2. The Amharic Version of the Social Intelligence Measure	153
5.1.3. The Amharic Version of the Cultural Intelligence Measure	155
5.1.4. Measurement Equivalence of the Amharic and English Language Versions of the National Identity Measure	157
5.2. The Levels of National Identity, Social Intelligence and Cultural Intelligence among Students in Ethiopian Public Universities	161

5.3. Relationships among National Identity, Social Intelligence and Cultural Intelligence among Ethiopian Public University Students	164
5.4. Contributions of Social and Cultural Intelligence in Predicting National Identity	167
CHAPTER SIX	170
Summary, Conclusion, and Recommendations	170
6.1. Summary	170
6.2. Conclusion	172
6.3. Recommendations	176
6.3.1. Practical Recommendations	176
6.3.2. Research Recommendations	178
6.3.3. Theoretical Recommendations	179
REFERENCES	181
APPENDICES	214
Appendix A	214
Appendix B	218
Appendix C	222
Appendix D	225
Appendix E	229
Appendix F	234
Appendix G	235
Appendix H	236
Appendix I	237
Appendix J	238
Appendix K	239
Appendix L	240
Appendix M	241
Appendix N	242
Appendix O: Graphs and Tables for Assumptions Checking for the Multiple Regression	245

List of Tables

Table 1: Distribution of Sample Participants and Questionnaires of the Main Study	71
Table 2: Reliability and Validity of the Measurement Scales	83
Table 3: Descriptive Statistics	97
Table 4: Factor Loadings of the Rotated Two–Factor Measure of the National Identity Construct	102
Table 5: Factor Loadings of the Rotated Three-factor Measure of the Social Intelligence Construct	105
Table 6: Factor Loadings of the Rotated Four-factor Measure of the Cultural Intelligence Construct	108
Table 7: Model Fit Indices and Acceptable Criteria.	119
Table 8: Standardized Regression Weights and proportion of variances of the Measure: Amharic [English].	121
Table 9: Model Fit Indices for the Adapted MEIM (Amharic, English)	122
Table 10: Goodness-of Fit Indices and Variations of Statistical Values of the MI for the Amharic and English Versions of the MEIM	123
Table 11: Pearson Correlation Coefficient between Factors and Variables.....	126
Table 12: Pearson Product-moment Correlations Between National Identity, Social Intelligence, Cultural Intelligence, and Social Desirability	127
Table 13: Students’ Level of National Identity, Social and Cultural Intelligence	137
Table 14: Variable Means, Standard deviations, and Pearson Correlation Coefficients	138
Table 15: Regression Statistics from Sequential Regression.	144
Table 16: Regression Statistics from Standard Multiple Regression.....	147
Table 17: Regression Statistics of Factors	149

List of Figures

Figure 1. Conceptual Model of the Study.	61
Figure 2. Measurement Model of the Two-factor National Identity Measure.	111
Figure 3. First-Order Measurement Model for Social Information Processing.	112
Figure 4. First-Order Measurement Model for Social Skill.	113
Figure 5. First-Order Measurement Model for Social Awareness.	114
Figure 6. Diagram of the Three-factor Social Intelligence Measurement Model.	114
Figure 7. First-Order Measurement Model for Cognitive CQ.	115
Figure 8. First-Order Measurement Model for Behavioral CQ.	116
Figure 9. First-Order Measurement Model for Motivational CQ.	116
Figure 10. First-Order Measurement Model for Metacognitive CQ.	117
Figure 11. Diagram of the Four-factor Cultural Intelligence Measurement Model.	118
Figure 12. Measurement Model of the National Identity Construct	132
Figure 13. Measurement Model of the Social Intelligence Construct.	134
Figure 14. Measurement Model of the Cultural Intelligence Measure	136

Acronyms and Abbreviations

AAU	Addis Ababa University
AMOS	Analysis of Moment Structures
APA	American Psychological Association
ASTU	Adama Science and Technology University
AVE	Average Variance Extracted
CFA	Confirmatory Factor Analysis
CQ	Cultural Intelligence
CQS	Cultural Intelligence Scale
CR	Composite Reliability
CVR	Content Validity Ratio
CVI	Content Validity Index
DDU	Dire Dawa University
EFA	Exploratory Factor Analysis
HEIs	Higher Education Institutions
IBM	International Business Machines Corporation
IVs	Independent Variables
KMO	Kaiser–Meyer–Olkin
MEIM	Multigroup Ethnic Identity Measure
MEIM–R	Multigroup Ethnic Identity Measure Revised
MI	Measurement Invariance
MoE	Ministry of Education
MR	Multiple Regression
NI	National Identity
SA	Social Awareness
SIT	Social Identity Theory
SIP	Social Information Processing
SI	Social Intelligence
SoE	Socioeconomic
SPSS	Statistical Package for Social Sciences
SSs	Social Skills
WkU	Wolkitie University
WU	Wollo University

List of Publications from this Dissertation

- Demlie, D., & Andualem, T. (2024). Validation of the Tromsø Social Intelligence Scale (TSIS) in the Ethiopian context. *Ethiopian Journal of Behavioral Studies*, 7(2), 141–180. <https://doi.org/10.20372/ejobs.v7i2.10612>
- Messay, D. D., & Adal, T. A. (2025). Measurement invariance of English and Amharic language versions of the Multi-group Ethnic Identity Measure (MEIM). *Ethiopian Renaissance Journal of Social Sciences and the Humanities*, 12(1), 193–217. <https://doi.org/10.4314/erjssh.v12i1.10>
- Messay, D. D., & Adal, T. A. (2025). Social intelligence and cultural intelligence as predictors of national identity among public university students of Ethiopia. *Romanian Journal of Applied Psychology*, 27(1), 28–38. <https://doi.org/10.2478/rjap-2025-0004>
- Demlie, D., & Andualem, T. (in press). Adaptation and validation of the Multigroup Ethnic Identity Measure (MEIM) to the Ethiopian national identity measure. *Abyssinia Journal of Business and Social Science*.

Abstract

This study aimed to examine whether national identity (NI) is influenced by social intelligence (SI) and cultural intelligence (CQ) in the university setting of Ethiopia, targeting senior undergraduate students. It was conducted in two phases: a pilot study and a main study. The pilot study primarily focused on validating the psychometric properties of the instruments used to measure the constructs. Senior students ($n = 343$) enrolled in full-time undergraduate programs at DDU and WU participated in this phase. By employing exploratory factor analysis (EFA) and confirmatory factor analysis (CFA), the factor structure, relationships between observed and latent variables, model fit, reliability, and validity were examined. Measurement invariance (MI) between the Amharic and English versions of the NI measure was assessed to ensure that the translated version conveyed the same meaning as the original MEIM and to determine which version was more suitable for use in the main study. A total of 286 participants were assigned to the English version group. The assumptions of MI were met. The pilot study results demonstrated that the Amharic versions of the tools were both reliable and valid for measuring the constructs among public university students. In the main study, 441 students were randomly selected from four universities—ASTU, DDU, WkU, and WU—and participated in the research. The validated instruments were used to collect the data. Pearson correlation analysis was employed to explore the degree of association between the variables and to verify the existence of linear relationships prior to testing the predictive model. Social intelligence was found to be positively correlated with NI ($r = .49, p < .01$), and CQ was also positively correlated with NI ($r = .58, p < .01$), indicating that students with higher SI and CQ are likely to possess a stronger sense of NI. Additionally, SI was positively correlated with CQ ($r = .72, p < .01$), suggesting that students with greater SI may also exhibit higher CQ. The extent to which the key predictor variables contributed to NI, after controlling for demographic variables, was also examined. The overall model was statistically significant, $F(7, 393) = 99.604, p < .05$. However, the demographic variables did not significantly predict NI, $F(5, 395) = 1.903, p > .05$. Cultural intelligence demonstrated greater predictive power ($\beta = .448, t = 7.620, p < .001$) compared to SI ($\beta = .164, t = 2.785, p < .01$). This study introduced a new framework of inquiry, revealing that both SI and CQ significantly influence NI. The findings highlight the need for researchers and stakeholders to pay greater attention to this issue, both to advance social-cognitive studies and to foster unity and peaceful coexistence.

Acknowledgement

First and foremost, I am incredibly grateful to the Almighty God for the blessing of strength throughout this difficult journey. Next, I thank my supervisor, Dr. Tamirie Andualem Adal, for his invaluable support and cooperation over the years. I deeply appreciate his extensive and insightful critiques throughout the course of this work and his unwavering commitment to maintaining high academic standards. I truly enjoyed our engaging discussions. I am also thankful to the anonymous reader for their dedication in reviewing my initial proposal and providing essential comments that laid the foundation for the present work. Their input was crucial in refining and reshaping the proposal, which initially suffered from an unfocused problematization and an unclear methodological approach.

My sincere appreciation goes to Professor Habtamu Wondimu, Dr. Daniel Tefera, Dr. Dawit Mekonnen, and Dr. Berhan Wondimu for their significant contributions, including critical reviews during the proposal evaluation and upgrading defense stages. Special thanks are due to the experts and colleagues who greatly assisted me during the adaptation, translation, and content validity assessment phases of the instruments, as well as in the fieldwork. These include Dr. Biniam Atnafe, Dr. Esayas Teshome, Dr. Ephrem Belete, Dr. Admasu Abebe, Dr. Galata Sitota, Dr. Taglo Kassa, Tesfaye Desalegn, Shumye Molla, Habtamu Fikrie, Eyob Nega, Wondu Teshome, Mulatu Desalew, and Melaku Ashagrie. A special acknowledgment to Tadesse Abebe for his invaluable help during data collection at WkU. His life was tragically cut short while on duty. May he be remembered with honor. I am deeply grateful to Dr. Teka Zewudie, Professor Tilahun Sineshaw, and Dr. Silesh Zeleke for the meaningful roles they have played in my academic journey. My heartfelt gratitude goes especially to Mengistu Desalegn (Mengie)—without your unwavering support and invaluable contributions, this study could not have been initiated or completed. I extend sincere thanks to all study participants for their time and willingness to contribute.

Last but not least, I want to express my deepest gratitude to my family for their unwavering support. I especially thank my late Mom, who, despite her limited education, instilled in me a passion for learning and optimism, emphasizing the ‘beauty’ of intellectual and scientific engagement beyond personal gain. You put up a sign on my heart. My only allegiance is to you. I never bid farewell because I have never believed you were gone. Your influence remains with me, and I continuously connect with you. Next, to my second Mom, Ethiopia Belachew, you are priceless beyond measure. An inexpressible “Thank you” goes to my beloved wife, Eden Fiseha (Mesi), for your incredible patience, for deliberately

diminishing your own importance to promote my goals, and for having my back throughout this demanding study. When I was compelled to leave all roles—including that of a husband—vacant for you, you took them on and carried them out unconditionally, with love, patience, and persistence. You endured so much, leaving no stone unturned to give me a sense of security. Your strength and resilience were unmatched. I very much owe you. Though words fall short, this achievement is truly yours. Ultimately, I would like to thank my brother, Abiy Wassihun, for keeping me grounded and for showing me what truly matters in life. Your presence, especially during tough times, has demonstrated the essence of brotherhood. Thank you for tolerating my complaints, even when they raised a few eyebrows. My little one, Eyob (Dotit), thank you for assisting me during the data encoding for both phases of the study, crossing hundreds of kilometers. Alex, thank you for your technical support.

CHAPTER ONE

Introduction

1.1. Background

The social groups with which people identify themselves are key determinants of many aspects of people's thoughts, feelings, and social behavior. In the same way, individuals' thoughts, emotions, and behaviors affect group membership and relationships. People have always had mental models of the self as group members and of groups as sources of identity and esteem. National identity, as a part of social identity, is thus influenced by both internal and external factors.

National identity, from the social psychology viewpoint, is considered one of the multiple forms of social identity that are created by the social psychological processes of individuals over time. Social identity highlights the fact that many of the categories, such as groups, teams, or societies, refer to existing or imagined social collectives and therefore give rise to perceptions of belonging, togetherness, and "we-ness" on the basis of "the similarities or shared attributes around which group members coalesce" (Cerulo, 1997, p. 386).

According to Tajfel and Turner (1986), national identity is based on an individual's perceived membership in a nation or nation-state. It is a multidimensional construct that includes cognitive, affective, and evaluative components related to one's country. The prominent studies that have been mentioned as most useful for understanding the nature of human attachment to a nation and to see groups extendedly as a nation are Tajfel's studies (Nigbur & Cirinnella, 2007; Smith et al., 2005). Consequently, understanding national identity from the social psychological perspective implies social categorization processes, for example, understanding the self as belonging to and being constituted by some socially defined category (Hogg & Reid, 2006).

The terms "nation" and "nationality" within the current context of Ethiopia refer to different ethnic groups that make up the federal state of Ethiopia. These ethnic groups are constitutionally entitled to govern themselves and their affairs with maximum rights up to secession, with some stipulated processes. The existing ethnic federalism structure of Ethiopia has influenced the country's geopolitical, social, and education policies and has been blamed for making "all things along ethnic and linguistic lines." One of the most commonly discussed aspects of the system by elites and politicians is that it officially acknowledges multiculturalism and respects the liberal values of diversity, tolerance, and recognition of minority groups.

Nonetheless, its practical application is criticized for contributing to the negative results of ethnic conflicts and social crises among groups. Fisseha (2016) reported that Ethiopia's ethnic federalism has brought about ethnic conflicts and social unrest among different ethnic groups. The system has exacerbated the conflict and divisions that previously existed because students primarily learn about their locality and ethnicity instead of their Ethiopian national identity (Dessalegn & Meherat, 2004). Considering this situation, people say that the greater Ethiopian national identity is deteriorating.

Social psychology researchers, however, have argued that individuals' relationships in a group should not be considered expressions of identity, stating that group identification is sometimes different from members' relationships (e.g., Huddy et al., 2021; Karasawa, 1991), although ingroup ties and positive relationships can be important factors for social identity categorizations. Moreover, scholars have argued that individuals can have multiple forms of identities, preferring to maintain exclusive ethnic, national, or both identities (Verkuyten & Martinovic, 2012), although they are not equally strong (Simon & Grabow, 2010; Simon & Ruhs, 2008). The general notion is that, because members enter into conflict, they do not show the absence or weakness of national identity. This is one of the ideas that fueled the

present research. Ethiopian national identity is presented as a "weak" identity because of the conflicts and clashes seen in universities. People from this camp claim that essential factors that help maintain a strong national identity have diminished, as students lack the elemental behavioral characteristics of collective identities such as reverence, understanding, tolerance, appreciation, recognition, and adaptability, which are also essential for peaceful coexistence.

It is partly to test this deliberation empirically and shed some light on the debate over Ethiopian national identity by examining young students' level of national identity in this mystifying situation of the country. Examining its association with social and cultural intelligence constructs can also be valuable to the area in general and to the population in particular, contributing to theoretical, empirical, and practical accounts.

On the other hand, the growing curiosity and interest in exploring and discovering 'new intelligence', unlike the earlier research tendency of viewing intelligence narrowly as the ability to grasp concepts merely and solve problems in academic settings, has identified new forms of intelligence that focus on specific domains, such as cultural intelligence (Earley & Ang, 2003), practical intelligence (Stenberg et al., 2000; Wagner & Sternberg, 1985), emotional intelligence (Bar-On, 2000; Mayer & Salovey, 1993), fluid and crystallized intelligence (Cattell, 1987), and social intelligence (Thorndike & Stein, 1937, cited in Weis & SuB, 2005). Although its inception dates back to the 1920s, social intelligence has become a relevant area of study that has attracted the attention of many researchers (e.g., Boyatzis, 2009; Boyatzis et al., 2014; Durlak et al., 2011; Honeywell, 2015; Zautra et al., 2015, 2016).

Social intelligence is viewed as a type of intelligence that refers to people's capacity to understand others and behave accordingly in relationships. A comprehensive definition of social intelligence (SI) given by Moss and Hunt (1927, p.108, cited in Lacanlale, 2013) reads as "the ability to get along with others" (p, 263). Additionally, Honeywill (2015) described

social intelligence as "the capacity to navigate complex social relationships and environments" (p. 6).

Individuals inherently need to adjust themselves to others in the group with which they identify. However, such adjustments and the subsequent maintenance of positive social relations in a diversified nation are not always easy, as they include meeting differences and conflicting views. This substantially requires a specific type of intelligence—social intelligence—the ability to effectively manage personal and societal situations by identifying commonalities and developing realistic but flexible coping strategies. In the processes of exploring, finding out, building, and maintaining commonalities with the groups we live in with, individuals' social intelligence is assumed to be an important factor in this study because it influences our relationships and the subsequent identity definition by utilizing our ability to understand and manage others in the group in which we reside. This involves finding common identities and ascribing meanings to an individual's membership. In support of the assumption of the present study, Lacanlale (2013) noted the following:

Man needs to become adaptive and flexible in dealing with others to develop healthy and smooth relationships. He needs to develop and possess the capacity and ability to understand and manage other people. He needs to know how to operate and handle various situations, and he should have an idea about the social environment in which he is interacting. To respond to these needs, man's social intelligence is deemed important (p. 263).

Because national identity (NI) is the feeling of unity, cohesion, collective belonging to a particular nation, and a sense of commitment and loyalty to a nation (Smith, 1992), in the current study, it is hypothesized that social intelligence is a key factor for national identity on the basis of the aforementioned underlying elements of the construct (i.e., adaptability, flexibility, social skills, social awareness).

Cultural intelligence (CQ), on the other hand, is a specific form of intelligence that focuses on the ability to grasp, reason, and behave effectively in situations characterized by cultural diversity (Ang et al., 2007; Charles & Trompenaars, 2006). These capabilities of individuals include the acceptance of a certain degree of cross-cultural confusion, the suspension of a judgment of cultural values, and a desire to understand cultural differences (Brislin et al., 2006). As a form of intelligence, compared with other intelligence types, such as social or emotional intelligence, cultural intelligence (CQ) refers to people's ability across cultures widely. Instead, other types of intelligence tend to focus on a particular feature of an individual's ability in a single cultural context.

Earley and Ang (2003) revealed that CQ is a multidimensional construct that comprises metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ. These dimensions, which differ qualitatively, contribute to national identity because they are capable of functioning effectively in culturally diverse settings and managing differences successfully. Students with higher CQ will be able to determine things in common and respect differences resulting from cultural backgrounds. This is an important element for smooth interaction and peaceful coexistence for a nation and its people. As Semela (2012) noted, "a multicultural state should be able to avert mutual mistrust and eventual intergroup conflict to survive and emerge viable" (p. 324).

Like SI, CQ is assumed to be another important construct for predicting national identity in this research because it involves the ability to interact and behave effectively among people who are culturally different in a nation. It contributes to the subsequent sense of collective identity that people (or members) can have or ascribe to. In other words, groups that comprise people with higher levels of CQ can function effectively because there will be a better understanding of each other, celebrating commonalities and respecting differences.

In summary, because smooth interactions, understanding, respect, acceptance, and adaptability are core elements of collective identity, examination of the ability of the two intelligence constructs to predict national identity is admissible. It can have theoretical and empirical significance for other studies. It is also deemed to have practical importance for peaceful coexistence in the Ethiopian public university setting, which is a place where the diverse nature of the country is vividly visible. According to the Ministry of Education of Ethiopia, higher education institutions (HEIs) continue to be the center of diversity in students' religion, language, and ethnicity (MoE, 2011). Given the splendid findings of Ethiopian public universities and students, examining the problem in this population of the study by itself could be justifiable and relevant. Hence, it is imperative that the present study focused on public university students.

1.2. Statement of the Problem

Studies of how individuals relate to nations or how nation-states are composed have been at the center of researchers' attention (e.g., Bellamy, 2008; Cerulo, 1997; Hart et al., 2011; Hutchinson, 2019; Shulman, 2002; Woods & Debs, 2013; Storm, 2022). These studies, however, have focused primarily on examining how individuals identify with the ideological, institutional, and political structures of nations. They are more inclined to investigate external factors, such as political ideology, for national identity, giving less emphasis to the construct, which can be influenced by intrapersonal, interpersonal, and societal factors, as one form of social identity. Most recent works on collective identity have even been done (and have become more salient) at the microlevel of ethnic identities. Such studies are useful and can be connected to national identity investigations but are not always trouble-free.

Following the restructuring of the political system of ethnic federalism in Ethiopia, the trajectory of ethnic conflicts has been shown to rise and has left the country's stability under serious concern, although there are competing claims for and against the system. In the last

two and more decades, conflicts attributed to negative ethnic relations have been mentioned as major factors contributing to the loss of many lives in different parts of Ethiopia (Besha, 2020; Fisseha, 2016; Taye, 2017). In particular, most Ethiopian public universities in the past few years have encountered harmful practices, including brutal killings among students.

From a political lens, the system has been blamed for seriously affecting interethnic relationships, resulting in a decline in social cohesion, the rise of 'narrow nationalism', and ethnic conflicts in universities (e.g., Fisseha, 2016). Ethiopian public universities continue to experience challenges concerning ethnic and religious conflicts, which result in interruptions of academic activities, injuries, and even deaths (Adamu, 2023). By observing conflicts and clashes in and outside universities and ethnic salience in Ethiopia, a significant number of people claim that Ethiopian national identity is diminishing or near extinction. However, social psychology scholars argue that group identity may not be measured in terms of members' relationships, as stated in the background section.

The present research has not ruled out the possible influence of those aforementioned political and structural issues to have contributed to the presence of a more ethnically salient atmosphere and its negative consequences in Ethiopia. The existing system could also play a role in contributing to conflicts. The crux is that the decline in Ethiopian national identity has not been adequately investigated from a social psychology perspective, particularly in HEIs. Some studies conducted at universities have tried to show the erosion of Ethiopian national identity among a few ethnic groups because ethnonationalism is growing (e.g., Ishiyama & Basnet, 2022). They have claimed that ethnic identity is more important than Ethiopian national identity to these groups.

The gap in such studies is that, in the context of present-day Ethiopia, an individual can consider both an Ethiopian nationality and a member of a specific ethnic group. In that sense, there will be a dual identity. The two identities may not have an equal magnitude of

identification at a time at a point. Although it is sometimes possible to understand a construct better by considering the conspicuous of its opposite and/or corresponding concepts, drawing a valid inference is not always unproblematic. Moreover, the comparison between two identities cannot reveal the tenacious presence of one and the sympathetic decline of the other, given that the two identities are not mutually exclusive. It only indicates the greater salience of one over the other. The general argument of the present research is that given the prominent state of ethnic identity, Ethiopian national identity also needs to be separately examined from the social psychology perspective for a sound conclusion.

Furthermore, nations comprise complex social, political, and cultural groups, including close and conflicting relationship groups, as a societal environment that consists of human beings. These groups and subgroups considerably matter in the definitional process that other fellows give to themselves and their group identities. In this context, SI, for example, can play a significant role by helping individuals understand the complexity and subtlety of both individual and group behavior. It is also essential to evaluate both individuals and groups and to manage the environment and the group with which we identify. With low levels of SI, it will be challenging to explore and determine the commonalities that are embedded in the group by creating an enabling environment for the group to function and be viable. For that reason, some scholars (e.g., Habib et al., 2013; Sternberg, 2004) described SI as an individual's bank of knowledge regarding the social matters of society. Indeed, national identity is a social matter. Research evidence shows that university students tend to have higher levels of SI (e.g., Alkhaldi & Alkhutaba, 2018; Omogbai & Jesuorobo, 2024; Uygun & Aribas, 2020). Students with better SI were found to have a better understanding of others and the ability to respect social values and common identity expressions (e.g., Windari, 2021).

Similarly, CQ is one of the latest contributions to intelligence and is often studied alongside other types of intelligence, including emotional and social intelligence (Idrus,

2021). Like that of SI, CQ is assumed in the present study to contribute to the prediction of national identity among young public university students in Ethiopia because it is the ability to function effectively in culturally diverse settings. Studies have shown that culturally diverse nations have higher levels of nationalism than do homogeneous nations (Robinson, 2009). Subramaniam et al. (2011) reported that CQ is key for cross-cultural adjustments. According to Harrison and Brower (2011) and Idrus (2015), students with high CQ faced fewer problems in cross-cultural adjustments and were able to cope with societal problems. University students were also found to have better CQ (Senel, 2020; Sousa, et al., 2023; Teneta-Skwiercz, 2022).

Correspondingly, research has indicated that social identity facilitates individuals' adjustment to their surroundings (e.g., Simon, 2004; Vignoles et al., 2006). Additionally, it has been identified as a contributor to overall wellbeing (Haslam et al., 2009; Inzlicht & Kang, 2010; Vignoles et al., 2006). Moreover, social relationships in schools were found to be important predictors of national identity. Positive relationships between students statistically predict stronger national identity (Ziemes et al., 2021). These findings provide empirical support for the present study's argument and the assumption provided by the relationships among NI, SI, and CQ. The SI and CQ constructs, specifically, capabilities of adaptability, flexibility, social skills, social awareness, reverence, understanding, tolerance, appreciation, and recognition, which are also essential factors for national identity, have not been examined. The associations of these intelligence constructs with national identity have not been investigated. Therefore, the present study examined SI and CQ as predictors of NI from the social psychology perspective.

To the best of the researcher's knowledge, similar investigations in Ethiopia have not been widely reported. However, Keller's and Omwami's (2007) investigation of the perception of the national identity of Ethiopians, which is the closest study to the present inquiry, revealed no

contradictions with their ethnic identities, but differences in the degree of identification among ethnic groups were found. Ethiopia is a diverse country with over 80 different ethnicities and nationalities; each has its own distinct language, culture, and traditions. The interplay of human-to-human interactions is considered essential for the existence of a larger society. University students' societal and cultural values, in this regard, cannot be seen as different from those of the general society.

Higher Education Proclamation No. 650/2009 of the Federal Democratic Republic of Ethiopia (FDRE) stated that one of the objectives of HEIs is to promote democratic culture and uphold multicultural community life (FDRE, 2009). As an element of ensuring positive learning outcomes for all students, the proclamation instructs that HEIs are expected to develop and disseminate a culture of respect, tolerance, and living together. Against this background, the trends of the last three decades have shown that universities have been experiencing diversity-related conflicts among students. However, universities react to those incidents and conflicts after a certain degree of damage and destruction is encountered. Despite acknowledging its disastrous impact and reporting the political issues assumed to be the causes, adequate attention has not been given to other social psychological variables that could have had a triggering effect on the problem.

Examining the associations among NI, SI, and CQ would provide important insights and implications for mitigating conflicts and promoting diversity and solidarity. According to Windari (2021), national identity can moderate the impact of ethnic conflicts if members of a nation-state with high ethnic diversity also have a stronger sense of national identity. National identity is useful for developing and maintaining empathy and solidarity among the fellow populace; as Guibernau noted, "National identity fosters closeness, empathy and solidarity among fellow nationals" (Guibernau, 2007, p. 170). This would help create harmony and strengthen solidarity among fellow nationals of a country by uniting the diverse members of

the nation. Therefore, such an investigation is vital because the constructs have not been adequately investigated in the context of Ethiopian public universities to the best of the researcher's knowledge. Moreover, their association (and contribution) with collective identities has not been examined.

In conclusion, from the extant literature review, most studies on the problem have focused predominantly on the results of ideological narratives, political phenomena, and rhetoric polemics on individuals in terms of their expression of collective identities (e.g., Besha, 2020; Finneran, 2003; Gebrewold, 2009; Gudina, 2003, 2004; Teferi, 2012; Vaughan, 2003; Yusuf, 2019). They have neglected the social psychological perspective of social identity on the identification of oneself with a nation and in intergroup relationships. To the best of the researcher's knowledge, the underlying social psychological factors of social identity have not been adequately investigated and explained.

In interdisciplinary studies in psychology and political science disciplines, the social psychological factors associated with national identity have not been seriously examined. Therefore, instead of glossing over the concept as mere loyalty to a group, facilitated and shaped by more politically attributive elements, and as mere emotional attachment to its defined nature, the current study examined whether identification with a nation could be predicted by SI and CQ constructs.

Given the limitations of the presumption of studies on identity that pronounced political ideology as a source of national identity (e.g., Espinosa et al., 2016), the current research did not include ideological and political factors assumed to be significant for the construction of national identity. It focused only on examining the correlation between NI, SI, and CQ. Consequently, the research hypothesized that the sense of belonging to, or identifying with, a nation underpins a social psychological process, apart from mere political manipulation,

keeping other factors constant. It is more of an acquisition than an imposition. This is one of the first major gaps that this study has identified and planned to fill.

The second major gap that this research seeks to fill is the lack of studies on the integration of the social and cognitive viewpoints of identity. The social cognitive perspective is normally an established knowledge domain in behavioral science. However, it has rarely been used for the examination and explanation of problems that comprise and significantly share the facets of social and cognitive elements. In this context, it is assumed in the present research that national identity is, to a large extent, socially, culturally, and historically constructed, as well as psychologically processed. Social intelligence and cultural intelligence are also constructs that significantly embrace both social and cognitive dimensions.

Third, most recent works have focused on ethnonationalism—some call it narrow nationalism. The importance of 'national identity' over 'ethnic identity', on the one hand, and the importance of 'ethnic identity' over 'national identity', on the other hand, has exhaustively been pointed out in many studies from different viewpoints. Irrespective of these debates, however, Ethiopia does not possess an ethnically homogeneous population—said to have been home to more than 80 officially recognized ethnic groups (CSA, 2008). Although students might be exposed to different narratives regarding Ethiopian identity, their actual sense of identification with and level of attachment, the meaning they give as members, the way they relate with other subgroups and fellow Ethiopians, and their ability to perceive and manage the social environment are equally important and need to be examined for a valid comparison and conclusion.

Therefore, the current research was planned to be conducted to shed some light on the aforementioned gaps. It could provide important insight into the explanation of national identity from the viewpoint of human intelligence, particularly in terms of SI and CQ. It would also help shed some light on the elucidation of social cognitive studies and further

investigations in this area. In addition to examining the capacity of SI and CQ to predict NI via data obtained from young students, this study also helps reveal young students' levels of NI, SI, and CQ. This, tangentially, provides insight to other researchers about youths' ability to get along with others and their ability to understand complex social relationships and to function in culturally diverse settings so that strategies and/or approaches can be designed.

1.3. Objectives of the Study

With the general aim of investigating social intelligence (SI) and cultural intelligence (CQ) as predictors of national identity (NI) among senior undergraduate students at Ethiopian public universities, this study pursued the following specific objectives:

- To validate the instruments measuring NI, SI, and CQ.
- To describe the participants' demographic accounts.
- To determine the levels of NI, SI, and CQ among students.
- To examine the correlations between NI, SI, and CQ.
- To examine whether SI and CQ predict NI, both with and without controlling for demographic variables, and to identify which of the two is the stronger predictor of NI.

1.3.1. Tangential Objective

- Investigate the language equivalence between the Amharic and English language versions of the MEIM.

1.4. Research Questions

- Are the adapted instruments for measuring national identity (NI), social intelligence (SI), and cultural intelligence (CQ) valid and reliable?
- What are the demographic characteristics of the participants?

- What are the levels of National Identity (NI), Social Intelligence (SI), and Cultural Intelligence (CQ) among students in Ethiopian public universities?
- How are NI, SI, and CQ related to one another among participants?
- Do SI and CQ predict NI after controlling for the effects of demographic variables, and which of the two is the stronger predictor?

1.4.1. *Tangential Research Question*

- Is there measurement invariance between the Amharic and English language versions of the MEIM?

1.5. Significance of the Study

Understanding national identity has long been one of the focus areas of researchers. As a scientific inquiry, the current research is also assumed to have theoretical, empirical, and practical significance.

1.5.1. *Theoretical Significance*

From a theoretical point of view, understanding NI from the social psychological perspective would have considerable importance for framework development. This could contribute to the existing theories by examining the construct's relationships with specific types of human intelligence, particularly SI and CQ. Specific to SIT, this study contributes to the understanding of the behavior and magnitude of collective identities and ingroup members' relationships in diverse contexts, such as Ethiopia.

It could also contribute to bridging various fields of study by providing a holistic understanding of how NI can be influenced by SI and CQ. In addition, this study contributes to social cognitive theory by presenting a tailored framework for understanding collective identities vis-à-vis intelligence, as intelligence has been still conceived as a mere cognitive ability by the majority, even by a significant number of the academic community.

1.5.2. Empirical Significance

This study can have empirical significance by shedding some light on the arguments regarding collective identity and relationships with members of the group (see Section 1.2 for more). The present study, therefore, could contribute to the literature by empirically examining the level of NI, focusing on student samples in public university settings. Consequently, Ethiopian national identity was not found to be low among the participants; thus, the argument that stated collective identity differs from members' relationship has received empirical support in the present study.

It can also contribute by providing quantitative data on the relationships among NI, SI, and CQ, filling empirical gaps in the current literature. Researchers in this area may use it as empirical evidence for further investigations on the problem. In addition, the study could be used for comparative analysis purposes, as it offers insights that can allow comparisons with findings from other nations and settings, contributing to a universal understanding of national identity and its dynamics. Afterward, this study presents valid and reliable measurement tools for NI, SI, and CQ that have undergone rigorous validation processes. This is one of the significant contributions to further investigations and researchers.

1.5.3. Practical Significance

In terms of practical importance, this study has several potential implications, such as program development, community engagement, and conflict resolution connotations. The findings could inform policymakers and HEIs about the importance of fostering SI and CQ in curricula and extracurricular activities to strengthen national identity. Understanding the interplay between NI, SI, and CQ is highly relevant to universities and relevant stakeholders in the education sector, such as government bodies (e.g., legislation & executives), civil society organizations working in the area of peacebuilding, and organizations that work to promote plurality and diversity.

Regarding the study's significance to universities, more particularly, knowledge of the level of NI, SI, and CQ provides important information for designing and developing intervention strategies for the advancement and proper utilization of attributes to promote social cohesion. Consequently, it is possible to mitigate conflicts in universities because of the inability to respect and/or tolerate differences among students from the same and/or different backgrounds. It is also possible to increase students' academic effectiveness by maximizing their SI and CQ, as previous studies have indicated.

It can transcendently be applied to civil society organizations (CSOs) as well. They can use this study as a source of information for peacebuilding initiatives in communities and intervention strategies to be carried out with youths and students by leveraging the strengths of SI and CQ. Entities that are interested in working to promote diversity and upholding plurality can also use it as a reference. This study can help provide insights into students' Ethiopian national identity level so that they can use it as a benchmark for drafting youth policies related to nationalities. These key stakeholders can benefit from this study.

1.6. Delimitation

This study aims to examine the ability of the two specific intelligence constructs to predict national identity among senior undergraduate students at Ethiopian public universities after the measures are subjected to robust validation. Although the dimension of identity is wide in its conceptual application, the present study is limited to investigating Ethiopian national identity from a social psychological perspective and examining its association with SI and CQ. It does not tread over ontological definitional or epistemological issues related to the use of 'nationalism' either.

Given the significant contribution of studies of ideology and politics for collective identities such as NI, the present study did not include structural elements and political systems associated with the expressions of collective identity. It also did not include students

in graduate, postgraduate, or nonregular (weekend, summer, and distance) programs. It focused only on senior regular undergraduate students. Hence, its results might not be indubitably generalizable to the former segments of the population.

The study was conducted at four public universities: ASTU, DDU, WkU, and WU. As a result, it might not yield an exhaustively conclusive result that would enable us to make generalizations for private universities, colleges, TVETs, etc.

1.7. Limitations of the Study

Despite the theoretical, practical, and empirical contributions this study offers, several limitations must be acknowledged. First, the study was conducted using a sample drawn from only four universities. As a result, the findings may lack broad generalizability to other populations, particularly those outside the university setting. Second, the study relied solely on quantitative methods and utilized standardized instruments adapted from other cultural contexts. This approach, while methodologically sound, may have limited the exploration of culturally specific attributes and nuances of the Ethiopian context that could be better captured through qualitative or mixed-methods research. Third, the use of cross-sectional data introduces potential limitations, including possible omission of relevant explanatory variables and an inability to establish causal relationships. Such methodological constraints may have affected the depth of the findings. Fourth, the study conceptualized the key variables of interest as having linear relationships and included only five demographic variables—age, sex, family SoE background, and original area of residence—as control variables. However, numerous other household, educational, and institutional factors may also be relevant, particularly as potential mediators or moderators, and could have enhanced the explanatory power and depth of the analysis.

Finally, a significant portion of the dissertation was dedicated to the validation of the instruments. This emphasis was based on the rationale that rigorous validation and transparent

reporting are crucial, especially when measuring complex constructs like intelligence and identity using self-report tools in a population where such instruments had not previously been applied. Nonetheless, this focus may have limited the scope available for in-depth analysis of the main study variables and could be viewed as a constraint.

In light of these limitations, readers and future researchers are encouraged to interpret the findings with caution and consider these factors when designing related studies in similar or broader contexts.

CHAPTER TWO

Review of Related Literature

In this review of the related literature, the subject matters of national identity, social intelligence, and cultural intelligence are presented. By giving more emphasis on the social psychological perspective, the review has focused mainly on the theoretical, conceptual, empirical, and methodological aspects of the constructs. The theoretical and conceptual frameworks of the study with operationalizations of the variables are also incorporated.

The method of review that was employed in this study was the narrative/traditional literature review method. The collection and use of materials were carried out via both manual and digital searches. However, digital materials that are found mainly in databases have been used predominantly. These materials used have been considerably in the last ten and twenty years. However, key literature from earlier years is also incorporated.

2.1. Conceptual and Theoretical Review

2.1.1. *National Identity*

The concept of identity began as a topic in traditional philosophy and logic, which Freud later integrated into psychological theory. Building on Freud's work, Erikson suggested that 'identity' represents a clear or ambiguous response to the question 'Who am I?' In Erikson's view of identity, identity is not only an individual aspect but also a collective and social one. Identity is the difference, character, and sense of belonging found in interpersonal interactions and interactions between groups (Erikson, 1994). It develops from self-perceptions that arise through the reflective process of categorizing oneself or identifying with specific groups or roles (Stets & Burke, 2000).

National identity has been one of the debatable issues in academic circles with the development of modern nationalism. There seem to be challenges of elusiveness in defining it (Assefa et al, 1996; Gudina, 2003). The most direct political product of modern nationalism is

the nation-state. According to Zheng (2004), any modern nation-state includes two important aspects. One is the nation-state system, and the other is the national identity of the inhabitants in the territory of the state. Culture, as a manifestation of the social attributes of human beings, is also an important medium affecting the identity of individuals and ethnic groups and national identity (Han, 2010). Consequently, national identity refers to the identity of the citizens of a country with their own country's historical and cultural traditions, moral values, ideals, beliefs, national sovereignty, and so on. It manifests as individuals or groups believing that they belong to a country as a political community (He & Yan, 2008).

In defining the concept, however, there are still debates over the distinction between "real" and "imagined" perspectives on nations (Anderson, 2020; Gellner, 1983). However, scholars, on the other hand, argued that this is too much of a burden for one conceptual term given the vast array of different approaches to national identity (e.g., Brubaker & Cooper, 2000). In addition to the conceptual debate, the role of national affiliation in identity construction has been challenged by postmodern accounts. Proponents of this view suggest that globalization and transnationalization are undermining the centrality of nations. They argue that instead of alternative, and often localized, sources of identity are becoming increasingly significant (e.g., Hedetoft & Hjort, 2002; Herrmann et al., 2004).

Finneran (2003) reported that the issue of national identity in Ethiopia has been shaped at many levels in the past. He stated that self-confidence, nationwide pride in the very localized glories of an Aksumite past, a strong ecclesiastical fabric, historiographical, ethnic and linguistic elements and a small, though ultimately traumatic, brush with the colonial experience have conspired to shape a very unique view of Ethiopian heritage. One of the major reasons why Ethiopia has not disintegrated along ethnic lines is this common view of a glorious past enhancing this strange sense of not belonging to Africa. In other African countries, governments must tread wary representations of heritage while encouraging tribal

division and fostering divisiveness, according to the author. However, it seems problematic to take the author's ideas as it is for current Ethiopia, as ethnicity is increasingly becoming an identity issue.

The 'identity' component of national identity has also been criticized for its inflationary use and inherent ambivalence. Most importantly, it has been questioned for etymologically carrying connotations of essential intraindividual invariability and, simultaneously, interindividual sameness; hence, some agreed upon views of identity as a multiple and constantly renegotiated subjective relation to a national group (Brubaker & Cooper, 2000).

Despite the enduring debates over what a nation or national group or national identity actually is and how it is adequately defined, many scholars also suggest that identification with a nation precedes, in principle, certain qualities and characteristics. This idea directly leads to the social psychological theory of social identity to find adequate social psychological explanations.

Social identity theory (SIT) gives particular importance to the social categorization concept in understanding identification processes with groups and social categories. Social categorization is defined as a process whereby stimuli from the outside world are organized into comprehensible information units (Abrams & Hogg, 1990). It is a cognitive process that involves the unification of objects and social events in groups corresponding to an individual's actions, intentions, values and belief system (Tajfel, 1982; Tajfel & Forgas, 2000). In the formation of social categories, values play an important role in their preservation because they are an interpretation framework for social environment stimuli and allow the perceptions of similitude and differences among social categories to be established and emphasized (Abrams & Hogg, 1990; Fiske & Taylor, 2007; Tajfel, 1982; Tajfel & Forgas, 2000).

Scholars have also posited that the feeling of national identity is only one of the multiple forms of collective identification generated by humanity throughout history. According to

Billig (1995) and Torsti (2004), for example, national identity only appears when a system of political and social organization demonstrates what a nation-state is constituted. They noted that the state apparatus used the human need for collective identification to generate national identification. Wynter et al. (2001) claimed that national identity exists in two different poles. On the one hand, it exists in the public sphere in the form of articulated and highly selective speech produced by several social agents and institutions (intellectual elites, media, state institutions, etc.). On the other hand, national identity is expressed through several socially shared lifestyles and feelings, which are sometimes not appropriately represented by public versions of identity.

Social psychology researchers, however, have argued that identification with a group is sometimes different from identification with the members of a group (e.g., Karasawa, 1991) and that ingroup ties are essential dimensions of social identity categories (e.g., Cameron, 2004). In line with this notion, Tajfel and Turner (1979) referred to negative social identity as a potential risk for the self-concept and self-esteem of people who perceive a disadvantageous situation or an inferior position of their own group because the perception of disadvantage turns out to be a deficient self-perception (Mummendey et al., 1999).

Social identity theory is believed to be an invaluable theory because it emphasizes that categorization, including into nations, is a process of division that creates ingroups and outgroups. However, the theory has been criticized on many grounds. For example, the theory ignores the sociohistorical distinctiveness of 'nation' as a membership category compared with any other group or category and, similarly, takes no note of any differences between nations (Billig, 1995). The authors compared a category in social identity theory to Anderson's "imagined community" and noted that there are different types of community, but "... all these imaginings depend upon wider ideological beliefs. In consequence, grammatically similar statements of identity, can have very different meanings" (Billig, 1995, p. 68).

However, SIT is still taken as the prominent theory of social psychology to explain social identities such as national identity, essentially bringing together the individual and the social components.

From the aforementioned conceptual and theoretical reviews, one can understand that nationality is a subpart of social identity. This notion has been underscored by many scholars (e.g., Ashmore et al., 2004; Phinney, 1990). Consequently, social identity is generally defined as "... part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership" (Tajfel, & Fraser, 1978, p.63). From this definition, a cognitive, evaluative, and emotional dimension of social identity can be distinguished. Many scholars (e.g., Ashmore et al., 2004; Ellemers et al., 1999; Jackson, 2002) have exhaustively presented detailed explanations of these three dimensions of social identity in their respective works. In this particular section, they have been included in the review and are briefly presented below.

The cognitive dimension of social identity refers to the subjective knowledge of being a member of a particular social group. According to Ashmore et al. (2004), self-categorization is a necessary condition for developing a sense of belonging to and attachment to a group. As a result, a measure of national identity first has to capture whether participants identify themselves as members of a defined country. It may also include capturing the presence of dual identity, as participants may prefer an exclusive national or ethnic group identity (Verkuyten & Martinovic, 2012). However, dual identity does not necessarily mean that national and ethnic identities are equally strong (Simon & Grabow, 2010; Simon & Ruhs, 2008). An individual in the Ethiopian context can have dual identity, keeping other identity types constant. Consequently, individuals may show different degrees of identification and levels of loyalties to the groups to which they identify.

The evaluative dimension captures the value attached to group membership, as well as related attitudes (Ashmore et al., 2004; Sellers et al., 1998). The subjective evaluation of a group is referred to as private. That is, participants may evaluate their membership in a nation or country as either positive or negative.

The emotional dimension refers to the affective commitment to a group, which is often considered to be the most important component of social identity. The particular importance of the emotional dimension arises from the fact that it is the dimension most consequential for individual actions and ingroup bias (Ashmore et al., 2004; Jackson, 2002).

2.1.2. Social Intelligence

Carroll (1993) defined intelligence as a generic term for cognitive ability constructs that are generally valid for the accomplishment of heterogeneous tasks, problems, and situations. Common to all broad theoretical models and definitions is the basic idea that academic intelligence is a cognitive performance construct. The construct definitions include only cognitive operations, and task requirements are independent of contextual or situational influences.

An overview of definitions was given by Sternberg and Berg (1986), who presented the results of two symposia on intelligence that were held in 1921 and 1986. According to the authors, in these symposia, the main protagonists of intelligence research were asked to define their notion of intelligence. In the second symposium, for example, answers were manifold and ranged from intelligence "what is valued by culture" to "speed of mental processing", with a maximum agreement for the definition of "higher level components of abstract reasoning, representation, problem-solving, decision making" (p. 158).

In both symposia, as Sternberg and Berg (1986) noted, there was interest in the extension of existing intelligence concepts. Many of the participants of the second symposium, for example, asked for an investigation of intelligence in specific domains (music, arts, chess,

etc.). The real-life manifestations of intelligence were of interest. Furthermore, the extension of intelligence was the topic of many diversely oriented efforts by the convention of reputable experts. The third symposium held at Sydney in 2001 has expanded the concept of intelligence. The contributions at this symposium reflected the diversity of extensions to intelligence concepts ranging from reductionist approaches to a "trend of diversification" (Weis & SuB, 2005, p. 109). At the other end of the spectrum, the introduction of a new ability construct represents an attempt to diversify the field of human intelligence.

Social intelligence was intended to extend traditional intelligence concepts when it was first introduced by Edward Thorndike in 1920, according to the literature. However, research was not as programmatic as it was and was much more diverse than academic intelligence research. Compared with academic intelligence, the operationalizations of social intelligence contain additional or distinct criteria rather than just cognitive requirements. The diversity of approaches has resulted in limited progress in establishing social intelligence as a meaningful and unitary factor of human ability. Consequently, scholars have begun examining the relationship between social intelligence and other comparative concepts, such as competence, performance, abilities and skills. These concepts are presented comparatively with social intelligence.

The expressions intelligence and competence, for instance, are often applied synonymously in social intelligence research. For example, (SuB et al. 2005b, cited in Weis & SuB, 2005) identified important distinctions between these two concepts. According to them, 'competence' is specific to different situations and contexts (i.e., in certain applied settings) and is more subject to modification and learning than intelligence. Intelligence is relatively stable over time and is seen as hereditary to a substantial extent (Grigorenko, 2000). Thus, social competence can be classified as a socially constructed concept, as it comprises all person-related preconditions to show successful behavior in varying types of applied settings.

Moreover, definitions of social competence vary substantially according to the spectrum of covered human attributes from just one (e.g., management of conflict, communication skills) to a complex interaction of various variables (Weis & SuB, 2005). However, social intelligence is often a necessary part of competence concepts.

'Performance' is another concept that is often seen as synonymous with social intelligence. According to Weis and SuB (2005), however, performance indicates the finally expressed behavior (the result) in contrast to the person-related preconditions that "only" enable behavior (the potential). Whether a person is capable of showing successful or effective behavior is not a direct function of this person's potential (i.e., competence and intelligence); additionally, it is dependent on certain personality traits (e.g., shyness, altruism, etc.), moods and current psychological states (e.g., fear, exhaustion), and context variables (e.g., group values), as the authors state. Scholars have further elaborated that the distinction between competence and performance is not only theoretical but also apparent when potential- and results-oriented approaches used to assess social competence are distinguished. Unlike potential-oriented approaches, results-oriented approaches conceive of social competence as effective behavior (the outcome) where effectiveness is determined through the specific properties of the situation.

Last, but not least, is the distinction between social intelligence and abilities and skills. Intelligence constructs usually consist of several distinguishable ability factors, such as reasoning or verbal abilities. The competence construct also contains cognitive and behavioral skills. According to Scherer (2007), however, 'abilities' represent more general, dispositional capacities. They are "either genetically endowed or acquired over a long period of socialization" (p. 103). In contrast, 'skills' are concrete actions or applications of cognitive operations on concretely defined problems (e.g., driving with a stick shift or applying an

algorithm to some new data). Additionally, skills are acquired in a process of several steps and are ultimately characterized by an automated series of actions (Ackerman, 1987).

Social intelligence, therefore, includes one or more of the following key components: the ability to recognize, understand and express emotions and feelings; the ability to understand how others feel and relate with them; the ability to manage and control emotions; the ability to manage change, adapt and solve problems of a personal and interpersonal nature; and the ability to generate positive affect and be self-motivated (Bar-On, 2000).

2.1.3. Cultural Intelligence

Over the years, many studies have alluded to the idea that there are certain attributes of some individuals who allow them to be effective in cross-cultural communication (Ting-Toomey, 1999), in overseas assignments (Caligiuri, 2000; Church, 1982), or more generally in cross-cultural interactions (Cushner & Brislin, 1996). However, only recently have efforts to describe this individual difference in terms of intelligence emerged.

Cultural intelligence has recently been introduced as a quantitative continuum of individual differences along which people may be arrayed according to how much of this attribute they possess (Earley, 2002; Earley & Ang, 2003; Thomas & Inkson, 2003). However, these conceptualizations are often criticized because they fall short of specifying the construct as more than a loosely aggregated set of facets conceptually similar to intercultural competency, a global mindset or a host of other similar terms or as an extension of constructs such as social intelligence to a new domain (Weis & SuB, 2005). Accordingly, addressing fundamental conceptual issues and dictating what is, and is not, and its relationship with other specific types of intelligence would be vitally important here. Along with discussing its dimensions, stability across different levels of analysis is also equally important. They are addressed hereunder.

Cultural Intelligence as a Specific Type of Intelligence.

In defining CQ as one type of intelligence, 'global thinking', 'global mindset', or any other form of similar term, is widely used in the business management literature. There continues to be a good deal of confusion surrounding the definitions and constituent elements of these terms (Levy et al., 2007). However, the notion of intelligence is guided by many theories that are commonly described as a multifaceted construct (Gardner, 1993; Sternberg et al., 2000). Intelligence is also a system of interacting abilities (Sternberg, 2003). These factors combine to define the ability to adapt to, and enact, a specific type of environment, one that is characterized by cultural diversity and cross-cultural interactions. Cultural intelligence is, therefore, beyond the mere concept of a 'global mindset'.

Cultural intelligence shares some attributes with social and emotional intelligence, as intelligence is inherently multidimensional, as discussed before. However, social and emotional intelligence are specific to the culture in which they were developed and do not necessarily relate to cross-cultural interactions. For example, social skills learned and honed in one country may be ineffective or even offensive in another culture with different rules for social interaction (Ruzgis & Grigorenko, 1994). Culture can influence rules of emotional display (Ekman, 1982). There is some evidence that culture-specific norms exist for experiencing emotions (Eid & Diener, 2001). Cultural intelligence builds on these ideas, but it is not merely an application of existing capabilities. It is a unique construction of interacting abilities that exist outside the cultural boundaries in which these abilities were developed. Consequently, it is a multidimensional construct. These dimensions are discussed below.

Dimensions of Cultural Intelligence.

As described in chapter one, Earley and Ang (2003) theorized CQ as a multidimensional concept that includes metacognitive, cognitive, motivational, and behavioral concepts, emphasizing that the importance of the investigation of intelligence should extend beyond

mere cognitive ability (e.g., Ackerman, 1996; Gardner, 1993). These four dimensions of cultural intelligence imply that cultural intelligence not only includes multiple types of knowledge (understanding of a body of information) and skills (mastery of an application of knowledge) but also involves both cognitive and metacognitive (knowledge of and control over one's thinking and learning) dimensions, according to the authors. From the conceptualization, it is understood that there is a difference between intelligence and intelligent behavior. That is, what constitutes intelligent behavior (a behavior that demonstrates appropriate knowledge and skills) may differ from one cultural environment to another (Johnson et al., 2006). However, since similar mental processes can lead to different behaviors in various cultural contexts, cultural intelligence should encompass the elements of intelligence that are common across cultures rather than those that differ. The CQ dimensions are briefly presented below.

Metacognitive CQ.

Metacognitive CQ refers to an individual's level of consciousness and cultural awareness during cross-cultural interactions. People with strong metacognitive CQ consciously question their cultural assumptions, reflect during interactions, and adjust their cultural knowledge when interacting with those from other cultures (Earley & Ang, 2003). According to Flavell (1979) and Nelson (1996), metacognitive CQ involves higher-level cognitive strategies that allow individuals to develop new heuristics and rules for social interaction in novel cultural environments by promoting information processing at a deeper level. Those with high metacognitive CQ typically observe interactions and the communication style of their counterparts (such as turn-taking) and think about what constitutes appropriate behavior before speaking up.

The authors who have researched cultural intelligence consider the metacognitive factor of CQ to be a critical component of CQ for several reasons. For example, Earley and Ang (2003)

proposed three reasons. First, it promotes active thinking about people and situations in different cultural settings. Second, it triggers active challenges to rigid reliance on culturally bounded thinking and assumptions. Third, it drives individuals to adapt and revise their strategies so that they are more culturally appropriate and more likely to achieve the desired outcomes in cross-cultural encounters.

Metacognitive CQ, therefore, reflects mental processes that individuals use to acquire and understand cultural knowledge, including knowledge of and control over individual thought processes related to culture (Flavell, 1979). The relevant capabilities include planning, monitoring, and revising mental models of cultural norms for countries or groups of people. Those with high metacognitive CQ are consciously aware of the cultural preferences and norms of different societies before and during interactions. These individuals also question cultural assumptions and adjust their mental models during and after relevant experiences (Brislin et al., 2006; Nelson, 1996; Triandis, 2006).

Cognitive CQ.

While metacognitive CQ focuses on higher-order and advanced cognitive processes, cognitive CQ reflects knowledge of norms, practices, and conventions in different cultures that have been acquired from educational and personal experiences. The cognitive CQ dimension of cultural intelligence, therefore, refers to an individual's level of cultural knowledge or knowledge of the cultural environment. Cultural knowledge includes knowledge of oneself as embedded in the cultural context of the environment. Given the wide variety of cultures in the contemporary world, cognitive CQ indicates knowledge of cultural universals as well as knowledge of cultural differences (Earley & Ang, 2003).

Although there are large variations in culture, Triandis (1994) and Murdock (1987) suggested that at a higher level of abstraction, cultures share some common features. These are cultural universals based on fundamental needs because it is believed that all human

beings have similar basic needs. According to the authors, cultural universals include technological innovations (e.g., tools), methods of obtaining food (e.g., hunting, agriculture), economic activity (e.g., trading), patterns of social interaction (e.g., does one talk to one's mother-in-law?), childrearing practices, beliefs and behaviors that relate humans to the universe (e.g., religion), aesthetic preferences, patterns of communication (language, gestures), and so on.

Earley and Ang (2003) further elaborated on these cultural universals. All societies possess fundamental systems to meet basic physiological needs. As a result, societies have economic systems to systematically produce vital commodities and distribute products and services. Societies also codify mating and child-rearing practices that create marriage, family, and other social systems. Educational systems enable learning and cultural transmission, whereas political, legal, and social control systems reduce anarchy and destruction (obedience to social norms). To facilitate interaction, societies develop language systems and systems of communication (verbal and nonverbal). Finally, societies have systems for explaining unexplainable (often relying on supernatural beliefs such as religion and witchcraft) and thus have systems of supernatural beliefs that help explain otherwise inexplicable phenomena.

Similar to metacognitive CQ, the cognitive factor of CQ is taken as a critical component of CQ because knowledge of culture influences people's thoughts and behaviors.

Understanding a society's culture and the components of culture allows individuals to better appreciate the systems that shape and cause specific patterns of social interaction within a culture. Consequently, those with high cognitive CQ are better able to interact with people from culturally different societies (Earley & Ang, 2003).

Motivational CQ.

Motivational CQ reflects the ability to direct attention and energy toward learning about and functioning in situations characterized by cultural differences. Kanfer and Heggstad

(1997) argued that such motivational capacities "provide agentic control of effect, cognition and behavior that facilitate goal accomplishment" (p. 39). According to the expectancy-value theory of motivation (Eccles & Wigfield, 2002), the direction and magnitude of energy channeled toward a particular task involves two elements: the expectation of accomplishing the task and the value associated with accomplishing the task. Those with high motivational CQ direct attention and energy toward cross-cultural situations on the basis of intrinsic interest (Deci & Ryan, 1985) and confidence in cross-cultural effectiveness (Bandura, 2002).

Like metacognitive CQ and cognitive CQ, motivational CQ is also a critical component of CQ because it is a source of drive. It triggers effort and energy directed toward functioning in novel cultural settings. Without the attention and energy to do something, it will not be possible to accomplish anything in this real world. For this reason, Earley and Ang (2003) presented an example in which a Chinese executive who has had a good command of Japanese and likes interacting with those from other cultures would not hesitate to initiate a conversation with a colleague from Japan. In contrast, another Chinese executive who is just learning Japanese or dislikes cross-cultural encounters would be less likely to engage in such a cross-cultural interaction.

Behavioral CQ.

The last but not least common component of CQ is behavioral CQ, which reflects the ability to perform appropriate verbal and nonverbal actions when interacting with people from different cultures. Behavioral CQ refers to the extent to which an individual acts appropriately (both verbally and nonverbally) in cross-cultural situations (Earley & Ang, 2003). Like the three factors of CQ described above, behavioral CQ is a critical component of CQ because verbal and nonverbal behaviors are considered to be the most salient features of social interactions.

Hall (1959) emphasized that mental capabilities for cultural understanding and motivation must be complemented by the ability to exhibit appropriate verbal and nonverbal actions on the basis of the cultural values of a specific setting. When individuals initiate and maintain face-to-face interactions, they do not have access to each other's latent thoughts, feelings, or motivation. However, they can rely on what they see and hear in the other person's vocal, facial, and other outward expressions. The author reported that in cross-cultural situations, nonverbal behaviors are especially critical because they function as "silent language" and impart meaning in subtle and covert ways. Earley and Ang (2003) noted that because behavioral expressions are especially salient in cross-cultural encounters, the behavioral component of CQ may be the most critical factor that observers use to assess others' CQ.

According to Lustig and Koester (1999), the behavioral repertoires of cultures vary in three ways: in the specific range of behaviors that are enacted; in the display rules that govern when and under what circumstances specific nonverbal expressions are needed, preferred, permitted, or prohibited; and in the interpretations or meanings that are attributed to particular nonverbal behaviors. Consequently, individuals with high behavioral CQ are flexible and can adjust their behaviors according to the specifics of each cultural interaction.

Conceptual Distinctiveness of Cultural Intelligence.

To further clarify the nature of CQ, it is also important to describe what CQ is not. In particular, CQ's differences and similarities with personality and with other bits of intelligence (namely, cognitive ability and EQ) and its relationship with existing intercultural competency models remain vital. They are presented hereunder brief.

CQ as an Individual Difference.

Like the social intelligence comparative concepts discussed before, the literature in general suggests three broad categories of individual differences: abilities or capabilities,

personality, and interests (Ackerman & Humphreys, 1990; Boyle & Saklofske, 2004; Ilgen & Klein, 1988; Lubinski, 2000; Murphy, 1996). Cultural intelligence is grounded in the larger domain of individual differences. Conceptually, CQ is anchored in the intelligence literature and is a set of abilities or capabilities, as opposed to personality or interests. Abilities are "those personal characteristics that relate to the capability to perform the behavior of interest" (Ilgen & Klein, 1988, p. 146). Hence, it is important to differentiate CQ conceptually from personality characteristics, interests, and outcomes (e.g., decision-making, performance, and adjustment).

Consequently, individual differences vary in their 'specificity' and 'stability' (Ackerman & Humphreys, 1990; Chen et al., 2000). On the basis of the conceptualization given, CQ is a specific individual difference construct because it focuses on culturally relevant capabilities. It is more specific than broad individual differences, such as general cognitive ability and personality (Chen et al., 2000). However, it is equally important to note that CQ is not specific to a particular culture. According to Triandis (1994), CQ does not focus on the ability to function specifically in France or Japan, as in the culture-specific assimilator. Thus, CQ is not culture specific, but it is specific to particular types of culturally diverse situations.

With respect to stability over time, Chen et al. (2000) described personality as relatively stable, traitlike, and individual differences, whereas capabilities and interests are more static, evolving over time. Because CQ is a statelike individual difference, it is malleable and can be enhanced through experience, education, and training. This number increases on the basis of multicultural and international experiences (Takeuchi et al., 2005). Therefore, CQ is a specific, statelike, individual capability within the larger domain of individual differences.

CQ and Personality.

The CQ is already considered an ability domain. As an ability domain, therefore, it refers to what a person can do to be effective in culturally diverse settings. Consequently, it is

distinct from stable personality traits, which describe what a person typically does across situations and times (Costa & McCrae, 1992, cited in Costa & McCrae, 2008). However, since temperament influences the choice of behaviors and experiences, some personality traits might be related to CQ. Ang et al. (2004) reported the discriminant validity of the four dimensions of CQ compared with the Big Five personality traits. They also demonstrated meaningful relationships between specific personality characteristics and specific aspects of CQ. In particular, openness to experience, which is the tendency to be imaginative, creative, and adventurous (Costa & McCrae, 2008), is related to all four dimensions of CQ. With respect to this relationship, Earley and Ang (2003) explained that the correlation makes sense since CQ is a set of capabilities targeted at novel and unfamiliar cultural situations.

CQ and Other Intelligence Constructs.

CQ is similar to, yet distinct from, other forms of intelligence, for example, with general cognitive intelligence and emotional intelligence (Mayer & Salovey, 1993; Schutte et al., 1998). It is similar to the two types of intelligence because it addresses a set of abilities rather than preferred ways of behaving (Mayer et al., 2000). It is different from them in the nature of the ability it encompasses. General cognitive ability, which is most commonly considered the ability to learn, is an important individual difference that predicts performance across many jobs and related settings (Schmidt & Hunter, 1998). This intelligence, however, is not specific to certain contexts (Ackerman & Humphreys, 1990), such as culturally diverse situations. Additionally, general intelligence does not include behavioral or motivational aspects of intelligence, which are significant components of CQ.

In terms of the similarities and differences between cultural intelligence and emotional intelligence (EQ), EQ focuses on the ability to address personal emotions and is similar to CQ because it extends beyond academic and mental intelligence. However, EQ differs from CQ because it focuses on the general ability to perceive and manage emotions without considering

the cultural context. Given that emotional cues are symbolically constructed and historically transmitted within a culture (Fitch, 1998), the ability to encode or decode emotions in the home culture does not automatically transfer to unfamiliar cultures (Earley & Ang, 2003). Therefore, EQ is culture bound, and a person who has high EQ in one cultural context may not be emotionally intelligent in another culture. In contrast, CQ is culture free and refers to a general set of capabilities with relevance to situations characterized by cultural diversity; it does not focus on capabilities in a particular culture, as described in the aforementioned sections.

Antecedents and Consequences of CQ.

Since CQ is more statelike than traitlike, it is assumed that some personality traits can be antecedents of CQ. Chen et al. (2000) reported that trait-like individual differences predict more proximal statelike individual differences because temperament influences the choice of behavior and experiences. Thus, it is imperative to position stable distal traits (e.g., the Big Five) and demographic characteristics (e.g., age, gender) as antecedents.

As Earley and Ang (2003) posited, to avoid tautological reasoning, it is essential to differentiate CQ (a specific type of individual difference) from the consequences of CQ (such as successful functioning in international or other culturally diverse settings). This leads to distinctions that differentiate between behavior and outcomes of behavior (Miltnerberger et al. 1998). However, those with high CQ are assumed to have more effective performance and adjustment in multicultural work groups, studies abroad, and expatriate job assignments (Caligiuri et al., 1998; Kraimer et al., 2001; Takeuchi et al., 2005). Therefore, CQ is a capability that causes and/or facilitates outcomes such as adjustment and effective performance in culturally diverse settings.

In conclusion, CQ is a specific, statelike, individual capability that is related to other forms of intelligence and other indicators of intercultural competence while remaining

conceptually and empirically distinct. Cultural intelligence should, therefore, predict performance and adjustment outcomes in multicultural situations (Earley & Ang, 2003).

2.2. Review of Empirical Studies

2.2.1. *National Identity*

Identity in general and social identity in particular are social psychological constructs resulting from complex personal and environmental phenomena. In multinational countries, most notably, people may have different conceptions of national identity, regardless of whether they are very attached to their country or not (Brewer 2001; Huddy & Khatib, 2007). Therefore, national identity studies may stimulate different thoughts, depending on whether a participant belongs to a country with a very homogeneous population or whether a participant belongs to a country with high diversity in its ethnic composition (Citrin & David, 2009; Theiss-Morse, 2009; Westle, 2012).

According to Schwartz et al. (2012), the increasing ethnic and racial diversity within the United States has led to questions regarding what it means to be American as well as how strongly immigrants and members of various ethnic groups identify with this superordinate national category. Consequently, they conducted a study and reported that American identity is indeed a measurable construct, at least in terms of considering one's relationship with the United States and feeling attached to the country and the national group, suggesting that group identification may operate similarly for ethnic and national dimensions. In their study, American identity involves two major issues: (a) thoughtful consideration of what being part of the United States means to the person and pride in it and (b) attachment to the country and the national groups. They also investigated whether this character of American identity would be endorsed by all and found similarly across ethnic groups and all immigrants. It was found that Middle Easterners scored similarly to Whites on both American identity subscales, and

Asian descent groups scored lowest on American identity affirmation/commitment. The scores of Blacks and Hispanics were intermediate between those of Whites/Middle Easterners and Asians. One major gap in this study is that even though the study was conducted with college students, generalizations have been made to the other segments of American citizens.

Studies on British national identity, particularly in Scotland and Wales, and increasingly in England, have shown that a substantial number of people have prioritized what researchers call a 'national' identity over their 'state' identity (Bechhofer & McCrone, 2009b). In Northern Ireland, which is one part of the UK, issues of Britishness have a particular political meaning that relates to history and patterns of settlement, which have no counterpart elsewhere in the British state. Miguel (2004) reported that interethnic cooperation was greater in Tanzania than in Kenya. The author argued that a superseding national identity was more salient in Tanzania than in Kenya.

Adamu (2014) investigated religious diversity in higher education in Ethiopia. Students often make friends with individuals from different ethnic and religious backgrounds. However, in selecting close friends, one's ethnic identity has become more important than it was a decade or so ago. According to the study, this is associated with the politicization of ethnicity in the country. The study reported that despite students' positive perceptions of diversity and attitudes toward outgroups, the intergroup relationships among students from different ethnic and religious backgrounds are gradually deteriorating. In addition, the study revealed that despite the economic issue, which is the common reason that students mentioned in their transfer request application, it is rather ethnic-related issues that are the main reasons for most transfer requests. One major limitation of this study is that while it was conducted at a single university (i.e., Bahir Dar University), generalizations have been made to all Ethiopian higher education institutions.

The studies, however, examined these group identities through ideological and political measures of national and ethical identities. This is one of the major gaps in the literature because national identity has been more often associated with political systems and structural stuff, neglecting it as a social psychological construct as well. Many studies have not examined the dynamics of the evolution of national identity as a social psychological variable. Those aforementioned studies have shown this gap. It seems that the established and prolonged discourse about 'nation', 'nationalism' and 'nationality' that revolves around politics and political ideologies has contributed to the scant presence of studies on the theoretical considerations of social psychology, which is a significant source of identity formation and its development processes.

2.2.2. Social Intelligence

Pabian and Vandebosch (2014) conducted a study that examined bullying perpetration and social intelligence, considering the latter as a sociocognitive characteristic assumed as a possible regulator of traditional cyberbullying. They compared social intelligence for perpetrators and nonperpetrators of traditional bullying and/or cyberbullying and examined longitudinal associations. After latent growth curves of social intelligence were calculated for each profile, the study revealed that nonstop traditional bullies had the lowest levels of social intelligence, and their levels remained low. This experimental research was conducted over six-month time intervals across two years. The current research is different in design.

Habib et al. (2013) developed and validated a social intelligence scale. In this study, attributes of social intelligence were elicited from university students. After content validation, 431 university students were asked to rate themselves on 98 items on a 4-point Likert scale. Factor analysis revealed the presence of five factors, namely, social manipulation (SM), social facilitation (SF), social empathy (SE), extroversion (E), and social adaptability (SA). Social manipulation and SA appeared to be the two ends of social skills judged to be

negative and positive, respectively, according to the research. Social manipulation comprises a rather devious set of items used to exploit others for selfish ends. Social adaptability represents honest and sincere interactions with others, resulting in mutual benefits. SF was positively related to SE and SA, whereas SM was not. Extroversion was highly correlated with all factors. The aim of such validation studies is to show how the social intelligence construct has received researchers' attention as an important area of investigation.

Eshghi et al. (2013) investigated the relationship between social intelligence and effective influence among physical education experts. They conducted the study on 48 physical education experts, 37 men and 11 women whose ages ranged from 35 to 46 years in Isfahan education organizations. The results revealed that the correlation between overall social intelligence scores and overall effective influence scores was significant. Furthermore, the correlation between overall social intelligence scores and effective influence subscales was significant. The differences between gender and experience with social intelligence and effective influence were not significant, but there was a significant difference between academic level and social intelligence. The strength of the correlations obtained in the research suggested that overall social intelligence has a significant role in effective influence and its subscales. One of the limitations of this research is that it had a limited sample size to be able to make a valid generalization. The magnitude of each correlation was not also shown or described enough in the study.

2.2.3. Cultural Intelligence

This is because CQ has the ability to function effectively in culturally diverse settings (Earley & Ang, 2003), and it also addresses how people adapt and thrive in an environment other than the one in which they are socialized (Brislin et al., 2006). This means, in other words, that some sort of wider experience with cross-cultural encounters is needed to address CQ. This argument is empirically supported by the study of Ramalu et al. (2010). They

reported significant correlations between the length of stays abroad and three of the four CQ dimensions (metacognitive CQ, cognitive CQ, and behavioral CQ). Similarly, Imai and Gelfand (2010) revealed a positive correlation between international experience and behavioral CQ.

Seeking to enhance the theoretical accounts, empirical precision and practical importance of the cultural intelligence construct, Ang et al. (2013) developed and tested a model that posited differential relationships between the four CQ dimensions (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ) and three intercultural effectiveness outcomes (cultural judgment and decision making, cultural adaptation, and task performance in culturally diverse settings). Before testing the model, they conducted cross-validation studies ($N = 1,360$) on the multidimensionality of the cultural intelligence scale (CQS) across samples, time, and country. In addition to the validation study, they reported three correlational studies ($N = 794$) in educational development settings across two national contexts—the USA and Singapore. The results revealed a consistent pattern of relationships where metacognitive CQ and cognitive CQ predicted cultural judgment and decision-making; motivational CQ and behavioral CQ predicted cultural adaptation; and metacognitive CQ and behavioral CQ predicted task performance. The limitation of this research is its limited geographic scope. It would have been possible to make broader conclusions had many more countries been included in the study.

Cristina et al. (2016) examined the role of education-related factors in the development of cultural intelligence among 557 participants of the Colombian International Business undergraduate program. The results of the study revealed that second language proficiency, multicultural team membership, and participation in curricular and extracurricular activities promoted the development of the cultural intelligence of students. Furthermore, the results revealed differences in the four dimensions of CQ between students who participated in

extracurricular activities dealing with other cultures and those who did not. Specifically, the former reported higher levels in all CQ dimensions. The study, however, also provided a paradoxical finding concluding that as students advanced in their studies, they achieved higher levels of cultural intelligence. On the one hand, the increase was not continuous, and there might be declines in semesters four, nine and seven, as opposed to the former.

Geleta and Amsale (2016) investigated the multicultural competencies of higher education leaders in Ethiopia. The university leaders and academic and administrative staff did not have a considerable understanding of multiculturalism and pluralism. The study also revealed that universities need multicultural competencies and opportunities to enhance this ability. As the research did not include students, it might not have a direct relationship with the aim of the present study. However, the findings in the university setting, in which the present study was conducted, would have some important implications for the landscape of higher academic environments, as there is a substantial lack of studies on the construct.

2.3. Review of Methodological Approaches

2.3.1. *National Identity*

Many studies have been conducted to understand ethnic and national identities in many nations of Europe. However, the majority of the studies have been comparative studies. For example, studies have shown that native populations are indistinguishable. In contrast, immigrants and their descendants generally identify with their ethnic groups, with the host country, or with a combination of these two in the form of dual identity (Phinney et al., 2006; Verkuyten & Martinovic, 2012). These studies sought to understand national identity by comparing only those whom they called 'native' and 'immigrants'. They were not methodologically designed to determine whether the differences in identifications could correlate with variables such as individuals' identity formation and development.

From the extant literature review, it is hardly possible to find substantive studies of national identity from the social psychology viewpoint in the Ethiopian context. Some of the studies' implications have shown the considerable importance of the problem to be examined further. Among the few studies, the investigation conducted by Keller and Omwami (2007) has been found to be the closest to the present inquiry. It is assumed important to make a fair review of the study and understand its methodological approach in the quest.

Keller and Omwami (2007) researched 277 participants from Oromia, the Southern Nations and Nationalities and Peoples' Regional (SNNPR), Tigray, Amhara, Benishangul-Gumuz, and the capital city Addis Ababa, focusing on people's perceptions of issues of national identity, citizenship, government service delivery, equity, and popular participation. These findings call for further investigations from a social psychology perspective in the Ethiopian context. For example, the Berta and SNNPR participants were found more than the Amharas participants agreed that they felt pride in their nationality group. Residents of SNNPR were more likely than residents of Tigray to agree with this position, whereas the residents of Amhara were more likely to disagree. The findings also revealed that Tigrayans and Amharas were more likely to believe that their Ethiopian national identity was significant to them. Moreover, Berta and SNNPR and Benishangul-Gumuz felt stronger ties to those from their nationality groups than the Amhara respondents did.

The study revealed that residents of Addis Ababa, SNNPR and Benishangul-Gumuz felt stronger ties to those from their nationality group than did reference Tigray residents. Here, the location of the participants' residences was found to be the most influential predictor of the observed variability. In addition, the respondents from the Tigrayan nationality group agreed that they wanted their children to think of themselves as Tigrayan, even when the residences of the respondents were forced into the equation. Residents from Amhara and

Oromia were also more likely to want their children to be proud of belonging to their particular ethnic group than were respondents residing in Tigray.

The study also examined the collective interests of all these nationalist groups as being Ethiopian. In this context, members of both the Oromo and Berta nationality groups were more likely than Amharas were to agree that the interest of the Ethiopian people as a whole is more important than the interests of any single, nation, nationality, or people in the country. When a region of residence was included in the regression, only residences in Amhara presented a statistically significant response pattern compared with the Tigray reference group. Amhara residents were more likely to disagree than residents of Tigray, prioritizing the interests of their nationality group.

The participants of the study supported the idea that Ethiopian national unity is somewhat more important than self-determination. In contrast with most demographic variables, however, women were found to be more likely than men to agree that it is more important that certain nations, nationalities or people should have the right to determine their future than it is for the country to have a sense of unity and common purpose. All the participants, regardless of their nationality group, indicated pride in their group and their Ethiopian identity.

Because people are exposed to different narratives regarding Ethiopian national identity, especially in recent times, the perceptions people gave for their Ethiopian and national group membership, which was revealed by the study, might not be counterintuitive. However, there seems to be significant methodological concern about the design, sample size, and sampling employed in the study to come to a solid conclusion. In addition, it did not include students in university settings.

A study conducted by Fisseha (2016) on two Ethiopian universities (one in Oromia and another in the Southern Nations, Nationalities, and Peoples' (SNNP) regions) revealed that the issue of Ethiopian multiculturalism stemmed from the political system of ethnic federalism

and that the system seriously affects interethnic relationships, contributing to the decline in social cohesion, the rise of 'narrow nationalism', and ethnic conflicts. Although the study provided important insight into 'nationalism' in an academic institution context, it focused on the systemic and structural issues of the political system and how it has been affecting the education sector. In addition to methodologically excluding university students from the study, social psychological variables were also overlooked.

2.3.2. Social Intelligence

In the aforementioned section, research on social intelligence was not as programmatic as that on academic intelligence and was much more diverse than traditional academic intelligence research. For example, social skills were assessed as indicators of social intelligence via self-reported inventories (Marlowe, 1986; Riggio, 1986). Social behavior is judged by trained observers and should also operationalize social intelligence (Ford & Tisak, 1983; Frederiksen et al., 1984). Thus, compared with academic intelligence, the measurements also contained additional or distinct criteria than just cognitive requirements. The diversity of approaches has resulted in limited progress in establishing social intelligence as a meaningful and unitary factor of human ability.

Moreover, the unsystematic use of definitions and measurement concepts resulted in legitimate skepticism among some authors (Ford, 1994) about whether to specify social intelligence as a performance or ability construct. Thus, the methods used by many scholars to examine social intelligence have had some obscurities in dictating whether it is an ability or performance construct. This distinction is discussed above (see Section 2.1.2).

In social psychological studies of intelligence, many have focused on academic and emotional intelligence instead of social intelligence. For example, emotional intelligence was examined by presenting an image or video of a person's face as the origin of emotions (Small & Verrochi, 2009; Wild et al., 2001). To advance the theoretical and methodological

substantiation of the social intelligence construct and to develop a test of battery, a study was conducted by Weis and SuB (2007). The study was performance-based and examined only the cognitive ability requirements of the construct.

The present research, which considers social intelligence as an independent type of intelligence, has two important departures from the aforementioned studies, as an investigation that employed a different method of inquiry. The first is that the present study employed a nonexperimental research design; in particular, it was cross-sectional. This helped reveal the nature of the construct outside a laboratory setting. Second, it addresses both the cognitive and behavioral aspects of social intelligence without separating one from the other dimension. In this respect, some studies have examined the cognitive and behavioral aspects of social intelligence separately.

Studies on young students have shown the importance of social intelligence for adolescents and young students in their lives. Dodge and Pettit (2003) reported that adolescents with better social intelligence can solve many societal problems, such as problems related to relationships. They can establish new relationships, form additional networks, and preserve their existing ones provided that they are socially intelligent. Although these studies are important for substantial theoretical and empirical purposes, they seem to have failed to attain novelty. An individual with a high level of social intelligence can be found good at resolving relationship problems. Additionally, they tended to examine more emotional aspects. The present research recognizes that a group is not a mere collection of individuals but that 'emotion' also takes a substantial portion to define it. However, social intelligence can independently be examined in a survey if a careful methodological design is put in place.

Furthermore, in the processes of investigating shared social cognition processes, studies have usually focused on the cognitive aspects of how people construct and share thoughts, ideas, and memories (Cannon & Salas, 2001). They tried to investigate how thoughts,

perceptions, memory, etc., and cognition processes are shared among given group members. In efforts to understand social information processing, for example, relatively, the entire work has focused on how people are influenced by others' cognitions and attitudes in their social environments (Bateman et al, 1987; Shetzer, 1993). Social information processing is one of the dimensions of social intelligence.

In contrast, the present study followed a methodology that included both the cognitive and behavioral aspects of social intelligence, as described above, hypothesizing that variation in the construct is the outcome of the cumulative result of these elements.

In conclusion, according to Weber and Westmeyer (2001, cited in Weis & SuB, 2005), psychometric intelligence is considered a psychologically defined concept on the basis of Wiggins' (1974) distinction between psychologically and socially defined concepts. The former is defined by psychological research and is prototypically applied as a predictor in the context of psychological assessment (e.g., academic intelligence). Underlying the idea of socially defined concepts is a social-constructivist perspective.

According to Weis & SuB (2005), prototypical examples in this regard are external criteria in applied settings, such as success in a job that is rated by a supervisor. Weber and Westmeyer (2001, cited in Weis & SuB, 2005), however, criticized that these former external criteria are now introduced as new ability constructs: emotional intelligence (Salovey & Mayer, 1990), practical intelligence (Wagner & Sternberg, 1985), or successful intelligence (Sternberg, 2003). Consequently, the present study, which used an adapted and translated version of the social intelligence instrument, is believed to have a methodologically sound approach in the investigation of the construct in the Ethiopian context, particularly in public university settings. Researchers and key stakeholders may use it either by readapting or adopting it.

2.3.3. Cultural Intelligence

Many of the studies conducted on CQ have focused, methodologically, on culture and personality schools and have attempted to conduct studies to establish a connection between the cultural institutions of a society and the psychology of its members. For example, one of its leading members, Abram Kardiner (cited in Taylor, 1996), summarized the connection via a model of a causal chain. With respect to the model, the primary institutions of society (such as its household and community organization and the way its children are trained) result from the adaptation of society to its environment over a long period. Kardiner exemplified Zuni Pueblo, who has a complex social organization in which cooperation and peace are based partly on a strong sense of shame. These features are related to a strong relationship with the mother and relatively little sibling rivalry. The description stresses that personality structure explains some of the secondary institutions of society, such as religion and myth (for example, certain taboos).

Such studies, however, have not consistently shown reliable findings on different cultures and ecological levels. Taylor (1996) noted that they have failed to obtain data on individuals; the larger features of society were explained by reference to other larger features, without any experimental study of the individuals who were supposedly the middle link of the causal chain. This is one of the methodological problems that have been observed in different studies on the problem.

The present study, nonetheless, focused on students from different backgrounds. Additionally, most studies on cultural intelligence have been conducted by Western researchers with small samples from societies. This by itself calls for methodological concerns.

The other methodological issue that the present review has discovered is homogeneity. Those studies assumed that members of a given community (society) would have similar

personalities, characteristics, individual attributes, etc. The present study, however, assumes that societies could have commonalities and manifestations of it, but research designs that do not consider individuals' variability will result in flawed findings and subsequent conclusions. Assuming that societies are uniform seems seriously defective.

Furthermore, scholars have argued that some sort of wider experience with cross-cultural encounters is needed to conduct studies on CQ. Tarique and Takeuchi (2008), for example, reported that international work experience significantly improves CQ. Crowne (2008) acknowledged that vacation contributes much less to CQ development than does study or work experience abroad. The authors noted that vast international experiences and/or exposures to people from different cultural backgrounds help very much in the development of cultural intelligence.

Ward et al. (2009) reported that people working abroad with more foreign experience have higher average CQ than do students with less foreign experience. They concluded that the lack of cultural experience may influence not only the level of CQ but also the psychometric properties of the measure and its dimensionality. That is, people without extended cultural encounters likely lack sufficient cross-cultural knowledge to adequately differentiate among the items that measure the CQ dimensions, according to the authors. Their limited experience makes them less reflective of the cultural perspectives to be assessed and to comprehend the subtleties of the CQ items effectively. Therefore, when designing research on CQ, the issue of the cultural experience of the supposed population needs to be considered.

Consequently, the current research also supposes that exposure and experience in culturally diverse settings is an important issue for the examination of CQ. However, people must not necessarily have international exposure and experience to be included in cultural intelligence studies. As far as the current research is concerned, this notion of the methodological issue is troublesome to apply directly to the Ethiopian context. Because

international experience is not mandatory and substantially important for examining CQ, particularly in countries such as Ethiopia, where cultural diversity is overwhelmed, more than 80 nations and nationalities are considered. This argument congruently aligns with the conceptualization of the CQ construct. Because CQ is the ability to function effectively in culturally diverse settings (Earley & Ang, 2003), it addresses how people adapt and thrive in an environment other than the one in which they are socialized (Brislin et al., 2006). This means, in other words, it requires some sort of wider experience, out of one's group, with cross-cultural encounters to investigate the construct, but not necessarily an international one. Ethiopia is a very diverse country with different ethnicities and nationalities; each has its own distinct language, culture, and traditions. Public university students in Ethiopia come from diverse groups across the country.

However, to address, methodologically, the problem associated with a lack of cultural experience and lack of exposure to people with different backgrounds, senior students (year three and above) constitute the target population of the current study. The assumption is that senior students in public universities could have better exposure and experience with students from different cultures than junior-level and freshman students.

Moreover, previous studies have strived to understand how an intelligence construct could relate to other variables, but they have fallen short of methodological designs to enable them to perform a complete analysis of what correlations the constructs would have among heterogeneous people. For example, in Brief's and Weiss's (2002) study, the importance of emotional intelligence in organizational behavior and how it could be solidly established was shown. In this research, greater methodological emphasis was given to individuals' personalities than to groups' social and cultural backgrounds. The current study, however, has assumed that cultural intelligence is not situated in personality, so it is an individual's difference because it is more of a state-like than a trait-like construct.

In conclusion, in the process of understanding these two intelligence constructs (social and cultural), dichotomizing the variables into their respective dimensions and examining one of the facets of the variables merely and separately might not provide a complete picture of the constructs. This review revealed that many studies on the constructs sought to examine and understand them by analyzing a single dimension of the constructs. The present study, nonetheless, has attempted to understand the constructs employing a methodological design of examining all the dimensions, as proposed by the literature. Moreover, social intelligence is about understanding others and behaving accordingly, and cultural intelligence is the ability to function and manage effectively in culturally diverse settings; their definitions and conceptualizations imply that the constructs can be better understood by examining all of their respective dimensions together. However, it is assumed in this research that the two constructs are different from one another and are substantially different from other intelligence types.

2.4. Theoretical Framework

To frame the research problem and guide subsequent explanations, two key theories were selected to form the theoretical framework of this study: Social Identity Theory (SIT) and the Triarchic Theory of Intelligence. While both theories are integrated, SIT serves as the primary framework, particularly for conceptualizing and understanding national identity. The Triarchic Theory of Intelligence supports the framing and explanation of the constructs of social intelligence and cultural intelligence. The major assumptions underlying each theory are outlined below.

2.4.1. Theory of Social Identity

The topmost theoretical approach that has been consistently used by researchers for a long time, with the goal of explaining affiliation with diverse groups and maintaining collective identities, is social identity theory (Tajfel, 1981). It defines social identity as "(...) that part of

the individual's self-concept which derives from his knowledge of his membership in a social group (or groups) together with the value and emotional significance attached to that membership" (p. 24). This theory brings together the individual and the social (Abrams & Hogg, 1990; Turner & Giles, 1981).

The theory places great emphasis on the process of self-categorization as an important determinant of group behavior and ingroup identity. It claims that a sense of belonging to an 'ingroup' is distinct from an 'outgroup', which people acquire through the process of self-categorization. Furthermore, in understanding the process of self-definition as a member of a particular social group, SIT sheds light on motivational and affective factors that operate in the production and reproduction of the concepts of social groups (Tajfel & Turner, 1979). They noted the links between people's evaluation of their social group and their self-esteem. Because of people's inherent need for a positive self-concept, there is a tendency to judge their group favorably, including interpreting their own group's past positively.

Social identity theory, as a social psychological theory, draws a connection between the cognitive and perceptual processes of an individual and the behavior of social groups. Here, two levels are emphasized in the theory: individual and social. Membership in a group operates at both the social and individual (cognitive and emotional) levels. At the individual level, the theory explains the emotional link between group membership and self-identity. On the social level, it explains group conflict and change, for example.

In particular, Tajfel (1981), the prominent social identity theorist, asserted that "a nation will only exist if a body of people feel themselves to be a nation" (p. 229). Consequently, the theory connects the public face of the nation or nation-state, such as flags, anthems, passports, celebrations, values, and beliefs, with strong personal emotions and identifications. It also explains how distinctive qualities and characteristics are ascribed to members of different

national groups, including relatively newly established groups, and how the cognitive operation characteristics of categorization intensify group divisions (Taylor, 1996).

Therefore, Ethiopian national identity has been framed, examined, and explained from the perspective of these major theoretical foundational assumptions of social identity theory in this study.

2.4.2. Triarchic Theory of Intelligence

It appears to be rare to obtain specific but exhaustive theories to adequately apply in the investigation of specific types of intelligence, particularly social and cultural intelligence. The literature has not presented many options in this regard. To the best of the researcher's knowledge, Sternberg's (1988) triarchic theory of intelligence is the paramount theoretical approach that is believed to help the framing and explanation of social and cultural intelligence, especially for studies relying on self-reported measures of intelligence.

Triarchic theory fundamentally comprises three subtheories, each of which relates to a specific kind of intelligence facet. The componential subtheory, which corresponds to analytical intelligence, or the ability to solve problems; the contextual subtheory, which corresponds to practical intelligence, or the ability to successfully function in one's environment; and the experiential subtheory, which corresponds to creative intelligence, or the ability to deal with novel situations or issues (Sternberg, 1985, 1988). To Sternberg, intelligent thought is not aimless or random but rather is directed toward behavioral goals relevant to the life of the individual, including adaptation to an environment and selection and shaping of an environment (Gross, 1996).

The theory proposes that there are three distinct facets of intelligence: analytical, practical, and creative. Sternberg's (1988) triarchic theory of intelligence combines the elements that go into information processing and is more extensive than his earlier 1985 work, according to Gross (1996). Consequently, the theory attempts to explain the relationship between

intelligence and the internal and external worlds of the individual on the basis of these three distinctive capabilities—analytical, practical and creative.

With respect to the analytical facet of intelligence, Sternberg (1988) focused on inductive reasoning, the type of thinking necessary in the completion of a series of tasks and analogies. The other two (practical and creative) facets of intelligence address tasks that may cause individual differences in observed performance in both test and nontest situations (Gross, 1996).

Researchers on intelligence (e.g., Tigner & Tigner, 2000) reported that the analytical intelligence facet was the first module Sternberg described very well and was perhaps his most thoroughly developed one. The analytical facet of intelligence is what we use when we analyze, compare, and evaluate and is necessary for successful problem-solving and decision-making. It includes metacomponents, performance components, and knowledge acquisition components (Sternberg, 1988). People with analytical intelligence do not excel only in academic areas. They are also particularly adept at problem-solving and decision-making. Their ability to monitor and evaluate their progress is particularly high (Sternberg, 1988).

The practical facet of intelligence allows for the generalization of knowledge gained in a particular context to other contexts that appear during one's life. A person with practical intelligence can apply procedural knowledge to everyday tasks. According to Sternberg and Wagner (1989), teachers, for example, should assist students not only in acquiring information (a component of analytical intelligence) but also in applying that knowledge to the world in which they live (practical intelligence). Sternberg originally labeled this component 'contextual intelligence' (Sternberg, 1985).

The practical intelligence facet is much more individualistic than analytical intelligence, according to Sternberg. What is useful in one's life may not be useful in another's life and vice versa. Furthermore, what is seemingly irrelevant to one's life now may have utility to him/her

in the future. Hence, practical intelligence is difficult to assess via 'typical intelligence tests' and may show very little correlation with academic performance (Tigner, & Tigner, 2000).

The final component of Sternberg's triarchic theory of intelligence is the creative intelligence facet. This component of intelligence is important both when we encounter novel situations and when we deal with recurring circumstances. According to Tigner and Tigner (2000), novel situations require knowledge and skills that may not be loosely based only on past experience, and some people are more skilled than others at this kind of coping. Recurring situations, on the other hand, benefit from automatization that frees up attention for use elsewhere. Creative intelligence is, therefore, closely linked to the experience of the individual.

Therefore, social and cultural intelligence concepts have been framed, examined, and explained from the perspective of the triarchic theory of intelligence assumptions.

2.4.3. Integrating the Theories

In addition to the theories' specific characteristics and approaches, there are common elements that the SIT and the triarchic theory of intelligence can share for explanations of the constructs for an integrative utilization approach.

The first that best describes one of their common views is the level of analysis that the two theories emphasize. As discussed above, SIT states that membership in a group operates at both the individual and the social level. At the individual level, it explains the emotional link between group membership and self-identity. On the social level, it offers explanations for group and societal changes. Triarchic intelligence theory attempts to explain intelligence akin to the internal and external world of an individual. From the perspective of triarchic theory of intelligence, understanding intrapersonal accounts of phenomena and the ability to solve problems and understanding and explanations of the environment and/or social world can best explain processes at both the individual and societal levels. The practical component of

intelligence, which allows an individual to make generalizations of knowledge gained in a particular context to the other contexts that appear during his/her life, can also be understood in this category. Most intelligent thought is directed toward attempting to adapt to one's environment (Sternberg, 2018). Therefore, the two theories can be synchronized and can adequately help framing, explanation, and discussion at the individual and group levels of analysis.

Second, both theories involve well-grounded theoretical assumptions and subsequent explanations about the cognitive, emotional, and behavioral aspects of individuals. In this context, social identity theory draws a connection between the cognitive and perceptual processes of the individual and the behavior of social groups. It explains how distinctive qualities and characteristics are ascribed to members of different national groups and how the cognitive operation characteristics of categorization intensify group divisions. In the triarchic theory of intelligence, the cognitive, emotional, and behavioral elements are addressed in the different facets of the specific intelligence components. For example, the practical component of intelligence is important both when we encounter novel situations and when we deal with recurring circumstances. In that sense, cognition, emotion, and behavior taxonomies are embedded.

Third, both theories claim that every behavior is goal oriented. According to the triarchic theory of intelligence, having the integrated maximum level of the three intelligence facets (analytical, practical, and creative) would leave an individual with successful intelligence. To have analytical, practical, and creative intelligence components, in other words, means having the ability to analyze personal and social problems, developing practical solutions, and being able to cope with novel and recurring situations effectively. It was pointed out earlier that intelligence is directed toward behavioral goals relevant to the life of the individual: adaptation to an environment and selection and shaping of an environment (Gross, 1996).

Similarly, social identity theory explains affiliation with diverse groups and the maintenance of collective identities for some purpose. Acquiring the three intelligence facets would help an individual have successful group interaction and the ability to maintain group identity.

Therefore, it is believed in this research that the integrative application of the two theories is substantive for the examination of national identity and social and cultural intelligence and to provide explanations for the results of the study.

2.5. Conceptualizations

2.5.1. Conceptualization of National Identity

The majority of social science research has conceptualized the issue of individuals' relationships with a nation using the concept of "national identity" (e.g., Kumar, 2003; Smith, 1992). In social psychological studies, as discussed before, national identity is conceived as a specific form of collective identity, which in turn is assumed to be a type of social identity (David & Bar-Tal, 2009). Therefore, examining and understanding national identity requires not only a coherent conceptualization of identity but also the consideration of nations and national groups.

To empirically assess identification with a nation from this perspective, it is essential to establish the qualities and characteristics of the nation that are likely to be perceived as features to which people relate and with which they identify. In this respect, Taylor (1996) noted that the literature on nations and nationalism—and particularly on national identity—is instructive to at least approximate some of these features that might form a common "relational core." What are suggested as features and characteristics of nationality in the overarching label of "relational core" was considered during the conceptualization of Ethiopian national identity in this research. Taylor (1996) built three key themes on the basis of a review of scholarship: symbols representing the nation, political and institutional features deemed characteristic of nations, and perceptions of the nation as a solidary community.

By adapting Taylor's (1996) conceptualization of national identity but being more grounded in social psychology, particularly in light of social identity theory and collective identity measurement, Ethiopian national identity has been conceptualized as exploring Ethiopia, Ethiopian identity, its symbols and/or cultures, and commitment because of membership in and identification with the social group (i.e., Ethiopian nationality) as a solidary homeland. As national identity is a concept that encompasses the cognitive, evaluative, and emotional elements of individuals (Taylor, 1996), this conceptualization has been assumed to comprise these elemental dimensions of collective identity. This includes the cognitive awareness of being a member of a nation called Ethiopia, the subjective evaluation of being Ethiopian, and the emotional attachment to Ethiopia.

Importantly, the present research has not made any attempts at claims related to the ontology of nation and/or nationalism and/or patriotism. Instead, it has been hypothesized that this constructed conceptualization can be helpful for the subsequent operationalization of Ethiopian national identity, comprising the social psychological attributes to which participants of the study could subjectively relate themselves so that it is possible to measure their degree of identification. Consequently, this study examined the Ethiopian national identity of undergraduate public university students from different backgrounds as constituents of Ethiopia. Moreover, the term 'national identity' in this study refers to Ethiopian national identity. As the term 'nationality' is also widely used for 'ethnic' identification purposes, it does not imply the latter in the present study.

2.5.2. Conceptualization of Social Intelligence

In examining the concept of social intelligence, the conceptualization of the construct lies mostly in the distinction between cognitive (i.e., understanding people) and behavioral (i.e., acting wisely in human relations) aspects. Vernon (1933, cited in Weis & SuB, 2005), for example, conceptualized social intelligence as "knowledge of social matters and insight into

the moods or personality traits of strangers" (cognition) and as the ability to "get along with others and ease in society" (behavior) (p. 44). Other definitions and conceptualizations also tended to focus on either of the two components—cognitive or behavioral.

Authors (e.g., Silvera et al., 2001) further conceptualized social intelligence as the set of social information processing (SIP), social skills (SSs), and social awareness (SA). These three facets of social intelligence have been assumed to be characteristics of an individual's ability to understand or comprehend verbal and nonverbal communications (i.e., SIP), the knowledge and practical ability regarding basic societal matters required by society (i.e., SSs), and an individual's ability to understand others' perspectives and behave accordingly in different settings in society (i.e., SA). Because these facets are indicators of the measurement of social intelligence, they are more elaborated in the operationalization section (see Section 2.6.2).

Therefore, social intelligence in this research has been conceptualized as the ability of a participant to understand others (cognitive abilities) and behave or act sensibly and wisely (behavioral abilities) in relationships.

2.5.3. Conceptualization of Cultural Intelligence

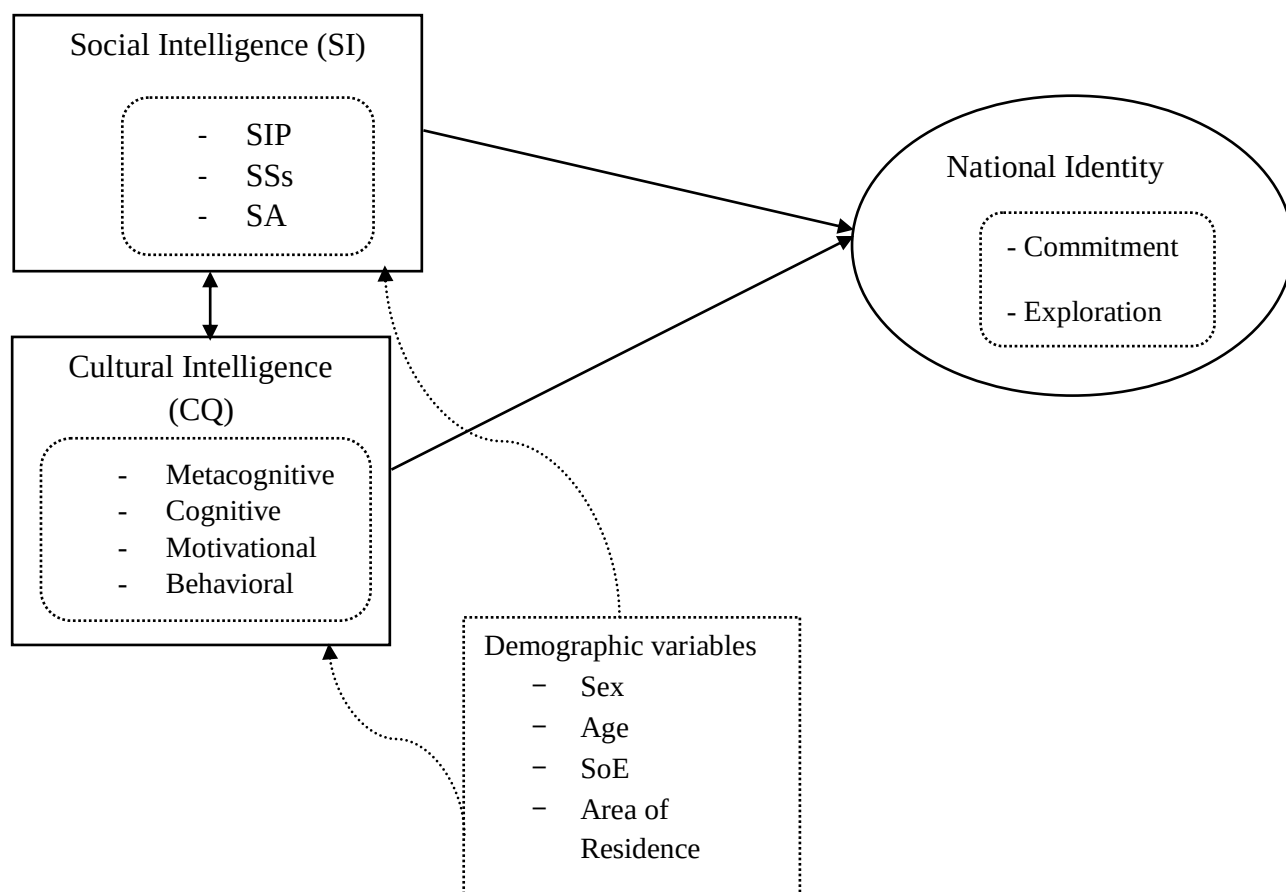
The general conceptualization of CQ is consistent with the definition given to general intelligence by Schmidt and Hunter (2000) as "the ability to grasp and reason correctly with abstractions (concepts) and solve problems" (p. 3). However, Earley and Ang (2003) developed a conceptual model of CQ, drawing on Stenberg's and Detterman's (1986) multidimensional perspective of intelligence. They theorized that CQ is a multidimensional concept that includes metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ components.

These authors integrated the myriad views of intelligence to propose four complementary ways to conceptualize individual-level intelligence. According to the authors, the overall CQ

construct may be best conceptualized as an aggregate multidimensional construct, which is similar to Law et al.'s (1998) view, who noted that a multidimensional construct has two distinguishing features: dimensions exist at the same level as conceptualization as the overall construct, and dimensions make up the overall construct. Thus, CQ has been conceptualized as the ability of an individual to function effectively in situations characterized by cultural diversity.

Similarly, in the present research, metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ were assumed to be qualitatively different but complementary elements of capabilities that together form the overall CQ construct. Both the cognitive facets of cultural intelligence (metacognitive CQ, cognitive CQ, and motivational CQ) and the behavioral facet (behavioral CQ) have been conceptualized together as components of CQ.

Consequently, CQ, in general, in this study has been conceptualized as a participant's ability to grasp, reason, behave, and function effectively in an environment characterized by cultural diversity. It is the capacity to understand, the effort exerted to know, recognize, tolerate, and recognize others' culture and cultural values. It includes a student's degree of not making judgments easily about others because one is from a culture different from his/her own. It also includes the curiosity a student could show to know about others' cultures and the values associated with them.

Figure 1.*Conceptual Model of the Study*

Adapted from the Integrative Model of Socially Competent Behavior (SuB et al., 2005)

2.6. Operationalizations

Operationalization of the concepts of NI, SI, and CQ in the present study's context is directly related to how to understand and measure these constructs via their respective specific dimensions. Accordingly, operational definitions of each of the constructs' dimensions with their respective measurements are presented in this section.

2.6.1. Operationalization of National Identity

The social psychology literature on how to measure national identity is vast. Because individuals might be in a situation where they are exposed to multiple narratives

simultaneously, they may find themselves identifying with multiple identities (sometimes conflicting), so subjectivity and perplexity might be involved. Consequently, there will be measurement issues. Operationalization of the concept remains essential to address such problems.

To measure national identity, therefore, the instrument that was chosen for the current study comprises two basic dimensions: exploration and commitment. 'Exploration' by the original measure was defined as pursuing information, knowledge, and experiences about one's social group (i.e., ethnicity). It is about how one is so keen to actively question his/her ethnic identity and seek greater information about it (Phinney & Ong, 2007).

Consequently, 'exploration' in the current research was operationally defined as the degree of curiosity and energy one pursues to acquire knowledge and information about the nation Ethiopia, including past histories of both glorious and inglorious aspects, which have been integral parts of Ethiopian national identity. The literature indicates that exploration is most prominent in adolescence but can continue afterwards (Phinney & Ong, 2007). It works for both adolescent and adult participants. The cognitive and evaluative elements of national identity are measured through the exploration dimension (Roberts et al., 1999).

'Commitment', on the other hand, refers to a fervent connection or personal attachment and investment in a group and may represent greater internalization and acceptance of one's social group, such as ethnic identity (Phinney & Ong, 2007). Rooted in this comprehensive definition, the present study operationally defines 'commitment' as the level of identification and degree of an individual's attachment to Ethiopian nationality and identification with it and the subsequent investment and/or devotion that the individual can pay. This indicates greater internalization and acceptance of one's collective identity, as measured by Phinney and Ong (2007) and Yoon (2011). The emotional component of national identity can be revealed and measured through the commitment factor of national identity (Roberts et al., 1999).

2.6.2. Operationalization of Social Intelligence

One of the challenges of measuring social intelligence that scholars have long raised was its abstraction to easily transform into measurable performance or explicit behavior. To address this measurement concern adequately, Silvera et al. (2001) identified indicators of the construct, such as the social information processing (SIP), social skills (SSs), and social awareness (SA) components of social intelligence. Consequently, they developed the Tromsø Social Intelligence Scale (TSIS). The SSs component focuses on issues concerning social execution, whereas SA and SIP are components of social recognition (Silvera et al., 2001).

The SIP dimension of social intelligence in this research, which stems from social information processing theory (Wyer, 2004; Wyer & Srull, 1980), has been operationalized as an individual's attempt and ability to understand others' communications and behavioral activities in social situations. It has been operationalized as the ability of a student to understand others' actions and an effort made by him/her to know the meanings ascribed by others from his/her own actions and/or communication activities. Therefore, examining SIP includes not only the ability to understand others' messages but also the meaning others could also ascribe from their actions and/or communication activities.

As a result, it is important to examine how an individual processes information obtained from others—from which meanings evolve—when studying an individual's social intelligence. Hence, in the SIP dimension of social intelligence, the ability of the participant to understand others' actions/messages and the meanings given by others for his/her actions and communication activities were measured.

In this study, social skills are operationally defined as the ability to have basic skills of interaction, recognition, consideration, and understanding of others and awareness of the basic social norms embedded in them. This operationalization is rooted in Canney's and Byrne's (2006) classification of social skills. They identify four overarching features of social skills:

foundation skills, interaction skills, emotional skills, and cognitive skills. It has thus been operationalized as a student's ability to communicate well on his/her debut, adjust himself/herself in social situations while many people are gathered, show respect, be sociable and easily interact with others, and know those social etiquettes associated with them.

Social awareness, which is the last dimension of social intelligence, has been defined as the ability to recognize and empathize with individuals from diverse backgrounds (Huynh, 2018). It refers to the awareness and behaviors of individuals in a shared environment (Prinz, 1999). It necessitates an understanding of a community's social situation within a shared environment, which can encompass physical, virtual, or hybrid spaces (Prasolova-Førland, 2004). According to Beamish and Bryer (2015), SA involves a range of skills, including assessing differences, understanding perspectives, demonstrating care and compassion, and empathizing with others' emotions.

As one indicator of SI, SA has been operationally defined in this study as an individual's ability to understand social and ethical norms, rules, and the capacity to successfully apply them and be watchful at times of interaction. It includes an individual's ability to understand the sources of variability of choices by others and the capacity to be able to recognize others' perspectives.

2.6.3. Operationalization of Cultural Intelligence

In the background section, CQ is an aggregate multidimensional construct (Earley & Ang, 2003) that includes metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ elements. These facets are qualitatively different from the overall ability to function and manage effectively in culturally diverse settings. Metacognitive CQ refers to knowledge and control of cognition (the processes that individuals apply to acquire and understand knowledge). Cognitive CQ refers to a person's knowledge structure and is consistent with Ackerman's (1996) intelligence-as-knowledge concept, which similarly argues for the

importance of knowledge as part of a person's intellect. Motivational CQ is about the mental capacity to direct and sustain energy on a particular task or situation and is based on contemporary views that motivational capabilities are critical to "real-world" problem solving (Ceci, 1996). Behavioral CQ refers to outward manifestations or overt actions— what the person does rather than what he or she thinks (Sternberg & Detterman, 1986, p. 6).

Rooted in the above definitions of the facets of CQ and as measured by Ang et al. (2007), metacognitive CQ in the present study has been operationalized as a student's higher-order capacity to acquire, apply, and control his/her cognition during interaction with people from different cultures. Cognitive CQ has been operationalized as a student's general understanding and knowledge structure of the different cultures in Ethiopia. Motivational CQ has been operationally defined as a student's curiosity, energy, and enthusiasm to learn and know about others' cultures in Ethiopia and the confidence he/she must be acquainted with them. Behavioral CQ has been operationally defined as the ability of a student to show appropriate behavior, communication (verbal and nonverbal), and explicit actions in general to those who were from different cultural backgrounds at times of interaction.

CHAPTER THREE

Methodology

This chapter presents the general methodological approaches employed in the study. It begins by outlining the research paradigm, followed by detailed descriptions of the study design, target population, participants, research setting, sample size determination, and sampling procedures. The chapter also discusses the instruments used, along with their statistical properties, and describes the processes of adaptation, translation, and validation. Furthermore, it explains the statistical methods applied for data analysis and concludes with an overview of the research procedures, emphasizing the ethical considerations observed during the data collection phases.

3.1. Research Paradigm

The study was informed by the positivist philosophical approach. Positivists posit that knowledge or facts can be obtained only by applying a scientific method of answering research questions (Saunders et al., 2009). Hence, close-ended questions were used to obtain objective data, positioning this perspective. As quantitative data were used throughout the study and the data analyses focused on identifying statistical relationships among variables, the researcher did not have an interpreter role. Therefore, the positivist point of view was predominantly adhered to in the study.

3.2. Research Design

The study was a nonexperimental study in which a cross-sectional research design was employed. According to Creswell and Creswell (2018), a "cross-sectional study is a type of research design in which we collect data from many different individuals at a single point in time. In cross-sectional research, you observe variables without influencing them" (p. 114).

As it is often used to explore and describe human behavior, a cross-sectional design is frequently employed in social and psychological research (Singleton & Straits, 2009).

This study aimed to examine the prediction of NI by the SI and CQ variables by utilizing data from young public university students. Thus, it employs a quantitative research method to meet its objectives.

As a predictive study, the predictor variables were SI and CQ, and the criterion variable was NI. The predictor variable SI had three factors, and CQ had four factors. Demographic variables (age, sex, family SoE background, and area of residence) were treated as control variables, and their influence on the key variables of interest (SI & CQ) in predicting NI was examined.

3.3. Study Population

The population of the study included public university students who had come to universities from all corners of the country or regions of Ethiopia and had reached year three or above. Among the public universities in Ethiopia, Adama Science and Technology, Dire Dawa, Wollo, and Wolkitie universities were selected for the study (see 3.5. How selection was performed).

As universities are normally expected to be diverse in terms of cultures, sexes, original areas of residence, and so on, although they differ in their compositions, obtaining as many heterogeneous samples from one university could not be a problem associated with the representativeness of the sample. However, to address probable concerns of heterogeneity in a sample that would arise from student assignment to universities, for example, a 40--60 policy (i.e., assigning 40% of the students in their region and 60% out of their region), although evidence from the MoE was not found, and other officially unknown factors, selecting universities from different regions was assumed to help widen the chances of obtaining more heterogeneous participants. For this reason, the selection of sample universities from different

regions of Ethiopia was planned instead of conducting the study on a single public university. Nonetheless, for the pilot study, the sample was selected from Dire Dawa and Wollo universities.

3.4. Participants of the Study

As noted above, the population of the study included public university students, who were found in their third year or above in the undergraduate program. Because SI and CQ are supposed to be built over time through interactions and exposures, the participants who opted for the study were senior students in the undergraduate program who had been in the universities for three years and above. This helped decrease ambiguity related to students' limited exposure and culture-bounded experience concerns, which are taken as the most important elements in understanding SI and CQ. Consequently, the university year of stay was considered an important aspect of participation in the study.

The study did not include graduate, postgraduate, or nonregular (summer, weekend, and distance) students. It focused only on regular senior undergraduate students. This is because, as cross-cultural encounters by participants are needed to address CQ as a problem in a study, there could be significant differences between students in the regular and other programs on the variable in question. To avoid the confounding of potential substantial variations in experience and exposure among participants, students in graduate, postgraduate, and nonregular programs were not included. There were no other inclusion-exclusion criteria than those mentioned.

Therefore, to address the potential problems associated with students' lack of cross-cultural experience, lack of exposure to people from different backgrounds, and inflated gaps in these attributes, senior university students in undergraduate programs were the focus of the current study.

Fourth-year students of psychiatry nursing, fifth-year students of electrical engineering and architecture, third-year students of civics education and journalism, fourth-year students of midwifery, and third-year students of accounting for the 2021/2002 academic year at DDU and WU were excluded from the sample selection of the main study. Students in these departments participated in the pilot study.

3.5. Study Area

To determine the research setting, three key factors related to resource utilization and practicality in addressing the problem were considered. The *accessibility*, *affordability* and *sensitivity* of the study sites were focused on. 'Accessibility' refers to gaining access to study sites with less bureaucracy to complete the data collection in a timely and less expensive manner. The goal of 'affordability' in this context was to refer to the physical and material capabilities of the researcher to obtain assistants voluntarily or less costly. The issue of 'sensitivity' in this study context should be addressed in the current security situation in Ethiopia. This means that safety and security matters during the trip and at data collection vis-a-vis the area where the public universities are located were considered when deciding to select the universities.

There were no other methodological reasons than those mentioned in choosing the study areas. Taking these resource-related and practical reasons into account, four public universities in the four regions (Amhara, Oromia, Dire Dawa, & SNNPR (this region has now split into four)) were arbitrarily chosen for the study. As Mason (2002) noted, such purposive sampling is typically performed on the basis of "the expert judgment of the researcher or some available resource identified by the researcher" (p. 140).

3.6. Sample Size

According to Kothari (2004), sample size depends on the objective of the study, the design of the study, the plan for statistical analysis, and the degree of precision required for generalization and degree of confidence. Considering these facts, the ratio of observations to estimated parameters ($N:q$) was used as a guide to determine the sample size; N = the total number of observations, and q = the number of parameters in the model. Kline (2016) recommended that the $N:q$ ratio should be 20 to 1. Accordingly, for this study, which featured 20 observed variables, a minimum of 400 sample participants ($20 \times 20 = 400$) was needed. With a likelihood of a nonresponse rate of 15%, the sample size was 460 ($60 + 400 = 460$). The reason for the extra cases is qualitative justification; it is for better generalization and precision by avoiding gradual sample size deterioration because of potential nonreturns, many more outliers, invalid values, missing values, etc. When this total sample size is divided into four universities, it will be 115 ($n = 115$). This number was allotted to each.

A total of 460 participants (115 from each of the four universities) were selected for the main study. With respect to the equivalent number of distributed questionnaires, 444 were appropriately filled out and returned. Among the remaining 16 questionnaires, 12 were not returned, and 4 were not properly filled out and returned. By taking lessons from the pilot study, the data collection for the main study was carried out via a stricter approach with a plan to achieve an absolute turnaround result. However, it was finally conducted on a sample of 441 students after cases with extreme missing values were excluded. This indicated that 95% of the questionnaires for each construct were returned, which was an excellent response rate. According to Rubin and Babbie (1997), a response rate of at least 50%, 60%, and 70% is usually considered adequate, good, and very good, respectively, for analysis and reporting.

Table 1.*Distribution of Sample Participants and Questionnaires of the Main Study*

University	Distributed Questionnaires	Unreturned	Ineligible	Returned & Eligible
ASTU	115	1	0	114
DDU	115	5	1	109
WkU	115	6	2	107
WU	115	0	1	114
Total	460	12	4	444

Note: ASTU = Adama science and technology university, DDU= Dire Dawa university, WkU = Wolkite university, WU = Wollo university.

To draw the sample for the pilot study from Dire Dawa and Wollo universities, Yamane's (1967) sample size formula and stratified proportional sample size formula were used together, taking the size of the population of the two strata (DDU & WU) as the general population. Thus, the sample size calculation was performed via the following formula:

$$n = \frac{N}{1 + N(e)^2}$$

where:

where n is the sample size; N is the population size; and e is the level of precision. The assumption is that at a 95% confidence level, $p = .05$. The size of the population was 11,359. Thus,

$$\begin{aligned} n &= \frac{11,359}{1 + 11,359 \cdot 0.05^2} \\ &= \underline{\underline{386}} \end{aligned}$$

It is recommended that in proportional stratified random sampling, the sample for each stratum should be proportional to the size of the subpopulation in each stratum. Accordingly,

to have a proportional allocation of the sample of participants, the sample size for each stratum was computed as follows:

$$nk = \frac{Nk*n}{N}$$

where:

nk is the sample size in each stratum; Nk is the size of the subpopulation in stratum k ; N is the total population; and n is the sample size for the population.

The population of the two universities was ((DDU = 6,737) + (WU = 4,622) = 11,359).

With a nonresponse rate of 5% (19 + 386 = 405), the sample taken was as follows:

$$\text{DDU} = n_{\text{DDU}} = \frac{Nk*n}{N} = \frac{6,737*386}{11,359} = 228$$

$$\text{WU} = n_{\text{WU}} = \frac{Nk*n}{N} = \frac{4,622*386}{11,359} = 158$$

A total of 405 participants (239 from DDU and 166 from WU) were drawn. From the equivalent number of distributed questionnaires of the Amharic language version, 348 were appropriately filled out and returned, whereas the remaining 57 (32 from DDU & 25 from WU) were either not returned or not properly filled out. Three participants were found to be non-Ethiopian and were excluded from the dataset. Two cases were found with extreme values during the preliminary analysis. Therefore, the validation study was conducted on a sample of 343 students. This indicated that 85% of the questionnaires were returned, which was an excellent response rate.

Among the 405 questionnaires distributed to English-language participants, 312 were appropriately filled out and returned. Ninety-three (57 from DDU & 36 from WU) were either not returned or not properly filled out. From the 312 eligible questionnaires for data encoding, 26 were found again either with extreme outlying cases or with inflated missed values.

Therefore, the pilot study for English-language participants was conducted with 286 participants.

The sample included fourth-year students of psychiatry nursing, fifth-year students of electrical engineering and architecture, third-year students of civics education and journalism, fourth-year students of midwifery, and third-year students of accounting for the 2021/22 academic year at DDU and WU. The data collection was carried out in April and June 2022, and the participants provided consent.

3.7. Sampling

Once the research setting and the sample size were determined, four strata (stratum of a university in Amhara, Oromia, Dire Dawa, and SNNPR (this region has now split into four regions)) were initially formed as described above. To draw the sample from each target population, a probability sampling technique was employed because it ensures the selection of a representative sample. Because probability sampling has many classifications, a disproportionate stratified random sampling technique was specifically used. However, for the pilot study, proportional stratified random sampling was employed, as indicated above. In proportional stratified random sampling, samples are drawn in proportion to the population (see Section 3.6).

However, for the main study, disproportionate stratified random sampling was used. Colleges and departments from each stratum were selected through simple random sampling. The names of the colleges were put in a box and randomly drawn. From each selected college again, departments were drawn in the same fashion. The sample participants were finally drawn through the lottery technique of the random sampling method.

During the practical fieldwork, nonetheless, a few departments under some colleges were found not to have students who reached year three and above. This was one of the challenges in implementing the planned sampling procedure. Consequently, only departments that had

year three or above students in a college were first screened and subjected to random selection. On this basis, in the ASTU stratum, the School of Civil Engineering and Architecture, the School of Mechanical, Chemical, and Material Engineering, and the School of Electrical Engineering and Computation were randomly selected. The Architecture, Urban Planning and Design, Geomatics Engineering, Chemical Engineering, Materials Engineering, and Software Engineering departments of these colleges were randomly selected. One hundred fifteen participants were randomly selected from these departments.

In the stratum of DDU, the College of Business and Economics, College of Social Sciences and Humanities, Institute of Technology, and College of Medicine and Health Science were similarly randomly selected. In these colleges, the Departments of Logistics and Supply Management, Economics, Geography and Environmental Studies, Psychology, Mechanical Engineering, Textile Engineering, Anesthesia, and Public Health were randomly selected. The same number of participants were drawn from these departments.

In the WkU stratum, the Colleges of Computing and Informatics, Social Sciences and Humanities, and Business and Economics were randomly selected. The departments of Information Technology, Computer Science, English Language, Civic and Ethical Studies, and Accounting and Finance were also randomly selected. The needed sample size was drawn from the students in these departments.

In the stratum of WU, the School of Veterinary Medicine, Kombolcha Institute of Technology (College of Informatics), and the School of Medicine were randomly selected. The departments of Pharmacy, School of Medicine, School of Nursing and Midwifery, School of Public Health, Software Engineering, and Information System were also randomly selected. Students in these departments and schools were randomly selected until the needed sample size was obtained.

3.8. Instruments

In this section, the instruments used to measure NI, SI and CQ are presented. The original instrument characteristics and their reported statistical attributes are described. Their reliability and validity after adaptation, translation, and validation for this particular study purpose are also reported. A detailed description of the tools is given below.

3.8.1. *National Identity*

Instruments that are believed to be most appropriate for measuring collective identities such as ethnic and national identities with heterogeneous samples are commonly called ‘multigroup measures’. One of the most frequently used measures in this regard is the Multigroup Ethnic Identity Measure (MEIM) developed by Phinney (1992). Since then, the MEIM has been revised and tested (e.g., Roberts et al., 1999; Phinney & Ong, 2007; Yoon, 2011) in different settings.

The MEIM was first developed to measure the process of ethnic identity development. It has been subsequently used in several studies and has consistently shown good reliability ($\alpha = > .80$) across a wide range of ethnic groups and ages (Phinney & Ong, 2007). The two factors on the 12-item scale (MEIM, Roberts et al., 1999) are identity exploration, which comprises five items, and identity commitment, which consists of seven items. Because of its flexibility and ability to measure other types of collective identity, it has been frequently adapted to measure national identity (e.g., Maehler et al., 2019; Schwartz et al., 2012, 2014); gender and religious identities (e.g., Ashdown et al., 2014); and racial, religious and national identities (e.g., Gaines et al., 2013).

The two factors can also be used independently, if needed, or in combination when evaluating the overall strength of collective identity. Translations of the measure into different

languages are also available (e.g., Maehler et al., 2019; Musso et al., 2017; Schwartz et al., 2014; Ting & Ting, 2020; Vedder, 2005).

One of the limitations of MEIM is that it was developed primarily to measure ethnic identity, although its openness to measure other collective identities has been described by developers, as mentioned above. From the social psychological perspective, both ethnic and national identities are subtypes of social identity. To address the problem of the original instrument and boost measurement specificity, the specific ethnic-related ‘items’ of the MEIM have been replaced by the specific "Ethiopian national identity" social category in the current study. That is, Ethiopian national identity was measured, substituting the term “Ethiopia” social group in place of “my ethnic group”, which originally appeared in the MEIM.

Therefore, the MEIM (Roberts et al., 1999) was adapted, translated, validated, and used in this study, on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A total of 15 items were initially used. However, two items were not found to be appropriate for measuring the exploration construct. With those poorly functioning items, the Cronbach’s alpha reliability coefficients of the Amharic versions of exploration and commitment were .78 and .93, respectively. When the items were discarded, the reliability coefficient of exploration became .92. The English version yielded reliability coefficients of .72 and .87 for exploration and commitment, respectively, with those poor items. After the two poorly functioning items in the exploration construct were discarded, its reliability coefficient became .84.

The Amharic version, which was solely used in the main study, yielded values of .90 and .92 for the exploration and commitment factors, respectively. The NI scale in general yielded .90 (see Table 2).

3.8.2. Social Intelligence

According to the extant literature review, self-reported measures of social intelligence are not widely available or found. However, some studies have applied self-reports as indicators of social intelligence (e.g., Brown & Anthony, 1990; Frankovsky & Birkner, 2014; Kriemeen & Hajaia, 2017; Marlowe, 1986; Riggio, 1986). One of the challenges raised in measuring the construct was its abstraction to easily transform into measurable performances or explicit behaviors. To address this measurement issue adequately, Silvera et al. (2001) identified social information processing (SIP), social skills (SSs), and social awareness (SA) components of social intelligence. Consequently, they developed the Tromso Social Intelligence Scale (TSIS) instrument.

The TSIS is a multifaceted social intelligence measure with a 7-point degree of agreement ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). It is an instrument that is most frequently used in several social intelligence studies. It consists of 21 items and measures three social intelligence dimensions—SIP, SSs, and SA—each of which utilizes seven items. Consequently, the present study used this self-reported measure of social intelligence.

The reliability coefficients for the three elements of the TSIS (SIP, SSs & SA) are reported in the original measure as .79, .85, and .72, respectively. In the pilot study phase of the present study, the reliability coefficients for the Amharic language versions of the SIP, SSs, and SA were .94, .91, and .92, respectively. The English language versions of the SIP, SSs, and SA were found to be .90, .84, and .87, respectively. During the main study, the SIP, SSs, and SA of the Amharic language version yielded Cronbach's alpha coefficients of .90, .94, and .88, respectively (see Table 2).

3.8.3. Cultural Intelligence

The instrument used to measure cultural intelligence in this research was the Cultural Intelligence Scale (CQS), which was developed and validated by Ang et al. (2007) across

different samples, times, and countries, with cross-validation works on undergraduate students in Singapore and in the U.S. Subsequent studies supporting the psychometrics, factor structure, validity, and generalizability of the CQS.

It has 20 items covering the four dimensions of CQ (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ). There are four items for metacognitive CQ ($\alpha = .76$), six items for cognitive CQ ($\alpha = .84$), five items for behavioral CQ ($\alpha = .83$), and five items for motivational CQ ($\alpha = .76$). All the CQS items are measured on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The higher the score is, the higher the level of CQ (Ward et al., 2011).

One of the problems of the CQS is that it is presented as a generic tool, so it would only allow the capture of cultural intelligence in a more general way. This limitation has been alleviated in the present study by modifying and customizing the items in the Ethiopian context. In the adaptation and translation process, prominent samples of cultures in Ethiopia were sampled (see Section 3.9).

Therefore, the CQS was adapted and used in this study. During the pilot study phase, the reliability coefficients of the Amharic language versions of metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ were found to be .82, .87, .88, and .88, respectively. The reliability coefficients of the English-language versions of metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ were also found to be .81, .87, .86, and .86, respectively. The main study that used the Amharic language version of the CQS yielded Cronbach's alpha values of .81, .89, .88 and .89 for the metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ factors, respectively (see Table 2).

4.8.4. Social Desirability Responses

The original scale that was developed to measure socially desirable responses by respondents in self-report inventories constituted 33 items (Crowne & Marlowe, 1960, cited

in Liebman et al., 2002). It has been validated and used by many behavioral and social science studies. According to Barger (2002), this scale is used to identify artifactual response bias in a wide range of fields, and its importance is underscored by its visibility in respected publications and institutions such as Health Psychology, Journal of the American Medical Association, Journal of Personality and Social Psychology, National Institutes of Health, Psychosomatic Medicine, Science, etc. The instrument has been widely adapted, used, and continues to be popular.

The participants' tendency to respond in a socially desirable manner is assessed by adding up the number of items responded to by the perception of social desirability. The number of socially desirable responses ranges from 0 to 33, with higher scores representing socially desirable responses. Ten items that were assumed to be relevant to the present investigation, in context, were selected by two experts, along with the researcher, during the pilot study.

In the social desirability scale, a participant is required to decide whether the statement is 'true' or 'false' as it suits him/her. This set of items is reported to have good psychometric properties (internal consistency = 0.88, test-retest $r = 0.89$). The English version of the Marlow–Crowne Social Desirability Scale was adapted, translated into Amharic, and used in this study of the pilot phase.

3.9. Instruments Adaptation, Translation, and Content Assessment Processes

The study fully relied on pencil-and-paper data collection instruments. As a result, three main phases (i.e., adaptation, translation, and content validity assessment) were performed to ensure the reliability and validity of the measures. The adapted Amharic versions of the MEIM, TSIS, and CQS were used.

For the measurement of the NI, the original MEIM scale was first adapted by the researcher in light of social psychological theories on collective identities and presented to psychology experts for cross-adaptation and customization of the items to the Ethiopian

context. For the SI and CQ instruments, the researcher first performed the initial measurement adaptation in light of *intelligence* theories in general and the *triarchic theory of intelligence* in particular.

Eight psychology experts and one social anthropology expert with a background in history were employed (see 3.12 for their profile). Conceptual and operational definitions of the construct with its dimensions were presented to the experts.

This was followed by forward and backward translation of the adapted scale, which was originally in English, into the Amharic language first and then back to the English language. Four linguistics experts for this particular task were used (see 3.10.2 & 3.12 for more information). All of them were bilingual, at least, and participated in the translation work. They performed back-and-forth translations of the instruments before the tools were exposed for content validity assessment. The back translation and convergence assessment were performed independently by a team. As a result, modifications to each item's length, wording, grammar, vocabulary, etc., were carefully performed by the experts. Items with long and complex words, double-barreled and seemingly double-negative questions, and jargon words were modified and customized in the back-and-forth translation.

The psychology and social anthropology experts performed a content validity assessment of the instruments presented both in English and the Amharic versions of the scale in general and their items in particular. They were given all the tools and asked to rate each item of the respective scale as "Essential", "Useful but not Essential" or "Nonessential" (see Section 3.10.2 for more about the content rating method). The social anthropology expert was assumed to be an additional asset for the assessment of the NI measure but more particularly for the CQ items. In the adaptation and translation process of the CQS, prominent samples of cultures in Ethiopia were also sampled in a 'spot check' manner on the basis of the recommendation of experts from different cultures. An attempt was made to make the

compositions of the expert to be diverse divers– who were exposed to different cultures in Ethiopia.

3.10. Reliability and Validity of the Instruments

To ensure the quality of the measures and the data obtained by them, issues of reliability and validity should be given significant emphasis. In most cases, valid instruments are also most likely reliable (Bryman & Bell, 2003). The reliability and validity of the instruments are presented below.

3.10.1. Reliability

It is essential that items on a scale be reliable. There are a range of different aspects related to reliability. One of the issues that must be met is the scale's internal consistency. This refers to the degree to which the items that make up the scale are all measuring the same underlying construct. This can be examined via an internal consistency test.

To test the extent to which the measures are reliable and yield consistent results, an internal consistency reliability test of the instruments was carried out during the pilot study phase. The reliability of the measures of the constructs during the main study was also reported. Cronbach's alpha coefficient, which is the most widely used indicator of internal consistency, and the CR, which takes into consideration the loadings of the indicators, were used for a more accurate measure of reliability. Consequently, the summarized Cronbach's alpha and CR coefficients of the measures are depicted in Table 2.

Depending on the nature and purpose of a scale, different levels of reliability values are required and suggested by scholars. Preferably, the Cronbach's alpha coefficient of a scale should be above .7 and not less than .5 for a scale with fewer than 5 items (DeVellis, 2003). Composite reliability is also usually interpreted in the same fashion. Hence, the instruments used in the present research yielded more than the cutoff value, as shown in Table 2.

Inter-item correlations and item–total statistics of the adapted Amharic versions of the MEIM, TSIS, and CQS were examined to identify poorly functioning items during the pilot study. The results of the interitem correlations are reported and appended (see Appendix A, Tables A1 to A5). Except for two items in the MEIM (Exp2 and Exp3) and two items in the TSIS (SS4 and SA7), which were negatively correlated with a few items, the values of the remaining items were strongly positive, implying that the items measured the same underlying attributes of the constructs.

The degree of correlation between each item and the overall item in their respective scales is also depicted to identify items that had a low correlation with the total score. Values $< .3$ are ideally assumed to have measured something different from the scale as a whole. Two items in the MEIM (Exp2 with .077 and Exp3 with .013) and two items in the TSIS (SS4 with .243 and SA7 with .168) were found to have low correlation coefficients with the total score in their respective scales.

On the basis of the results of the internal consistency test and the EFA, these items were found to be poorly functioning items with the lowest loading values. Thus, they were deleted because they did not fit enough with the other items. The reliability coefficients were calculated and reported after the poor items were excluded.

To this end, the adapted Amharic versions of the MEIM, TSIS, and CQS, which comprised 15, 21, and 20 items, respectively, were subjected to reliability analyses during both the pilot and main studies. Two items in the MEIM and two items in the TSIS measures were discarded because they were found to be unfit in the reliability assessment. Consequently, the Cronbach's alpha coefficients of the MEIM, TSIS, and CQS during the pilot study were found to be .90, .91, and .92, respectively.

During the main study, the adapted Amharic versions of the MEIM, TSIS, and CQS, which comprised 13, 19, and 20 items, respectively, were subjected to a reliability analysis.

The Cronbach's alpha coefficients of the MEIM, TSIS, and CQS during the main study were .90, .94, and .92, respectively, demonstrating very good reliability with a sample of Ethiopian public university students (see Table 2 for more detail). Values above .7 are considered acceptable, but values above .8 are preferable (George & Mallery, 2003).

Table 2.

Reliability and Validity of the Measurement Scales: Pilot [Main]

Scale	Pilot Study			Main Study			No. of Items
	α	CR	AVE	α	CR	AVE	
Exploration	.92	.93	.70	.90	.90	.62	8 [6]
Commitment	.93	.92	.64	.92	.92	.63	7 [7]
Overall NI	.91			.90			15 [13]
SIP	.94	.93	.67	.90	.90	.57	7 [7]
SSs	.91	.92	.65	.94	.89	.60	7 [6]
SA	.92	.92	.66	.88	.88	.55	7 [6]
Overall SI	.92			.94			21 [19]
Metacognitive CQ	.82	.84	.57	.81	.81	.53	4 [4]
Cognitive CQ	.87	.86	.51	.89	.87	.55	6 [6]
Motivational CQ	.88	.87	.56	.88	.88	.60	5 [5]
Behavioral CQ	.88	.87	.59	.89	.89	.68	5 [5]
Overall CQ	.92			.92			20 [20]

Note: α = Cronbach's Alpha; CR = composite reliability; AVE = average variance extracted; NI = national identity; SIP = social information processing; SSs = social skills; SA = social awareness; SI = social intelligence; CQ = cultural intelligence.

3.10.2. Validity

The validity of a measurement refers to the extent to which it can measure what it is supposed to measure. There is no one universally accepted clear-cut indicator of a

measurement scale's validity. Among the different types of validity tests, content and construct validities were particularly emphasized and checked in the present study.

Content Validity.

According to Cohen et al. (2005) and Creswell (2009), all instruments used for data collection should be appropriate and relevant for gathering the required information. In the present study, the experts' evaluations and comments and the instruments' validation results through the pilot study were the two most important techniques used to test and validate the different validity facets of the instruments. Besides, comments by the experts about the face validity of the instruments were also made and implemented.

All the instruments were reviewed and evaluated by experts from psychology, social anthropology (with a history background) and linguistics, who have been working in academia at different universities (for a more detailed description of the experts, refer to Section 3.12).

Each expert received a booklet consisting of a description of the study, operational definitions of national identity and its dimensions/factors, general directions/instructions about the task, demographic information about the expert, and a list of 12 items of the NI, 21 items of the SI and 20 items of the CQ constructs. The experts identified few items in the *exploration* subscale to capture the issue of national identity effectively in the context of Ethiopia. Thus, they suggested an additional three items to fully capture the needed attribute of the construct. However, the original seven items of the *commitment* subscale were maintained and adapted. This resulted in the total number of items on the scale being 15. Importantly, the number of items of the MEIM became 15 after this task of the content assessment by the experts but before translation and piloting.

The experts then rated each item on the scale as "Essential," "Useful but not Essential" or "Nonessential." In other words, the experts evaluated how essential and useful they thought

each item was to measure the supposed construct, indicating the degree of relevance an item had: essential = 3, useful but not essential = 2, and nonessential = 1. A booklet of the content assessment of the MEIM by an expert, as an example of showing the specific task, is attached to this dissertation (see Appendix B).

Items rated by the experts as “essential” were directly maintained. Items that were appraised as “useful but not essential” were modified on the basis of the suggested comments. Providentially, no items were rated as “nonessential” by the experts.

Like the language experts, the content raters were bilingual, at least. However, those a few items rated by the experts as “useful but not essential” and received small modifications were scrutinized by one of the language experts for morphological curiosity. Finally, to quantify the experts’ converging consensus, the researcher employed Lawshe’s (1975) content validity ratio formula and guidelines. The formula is as follows:

$$CVR = \frac{ne - \left(\frac{N}{2}\right)}{\frac{N}{2}},$$

where:

ne is the number of panel members indicating the item "essential", and *N* is the total number of panel members (Lawshe, 1975).

According to Lawshe, raters are supposed to evaluate the relevance of an item on a three-point scale ranging from 1 to 3. To determine the retention of an item on the basis of its content validity ratio, critical values as a cutoff are given. An item needs to have a value of .75 to be retained on a scale if it is rated by eight experts (Lawshe, 1975, p. 568).

Consequently, the CVR for each item of the study variable was calculated and found to range from .75 to 1. The CVIs of the items on the MEIM, TSIS, and CQS scales were .91, .94, and .95, respectively (see Appendix C, Tables C1 to C3).

Instruments Validation through Pilot Tests.

In addition to treating the instruments on the basis of the experts' evaluation and comments, all the measurements were tested through piloting. As suggested by Creswell (2009), it is important in research to conduct a small-scale preliminary study to check the relevance and clarity of the contents of the questionnaire as well as the feasibility of the instrument in terms of time and cost. Consequently, by creating two groups, the instruments were piloted on 343 sample participants for the Amharic language version and 286 sample participants for the English language version at DDU and WU during the pilot phase of the study. However, the results of the validity assessment of the English-language version are not reported in this section, as the Amharic language version was found to be more robust and stringent. As the measures were customized to the Ethiopian context, EFA and CFA were conducted to inspect the set of items and the number of factors that influence model fit. Details of the results are presented in chapter four.

Convergent Validity: To assess the degree to which all the items of the factors measured the same underlying construct they were supposed to measure, the researcher examined convergent validity. One criterion for determining convergent validity is the average variance extracted (AVE). According to Hair et al. (2019), the AVE should be greater than .50 to reveal the presence of convergent validity. In the pilot study, the AVEs of the exploration and commitment constructs were .70 and .64, respectively, which indicated convergent validity and showed correlations between the observed factors within each latent variable. The AVEs of the SIP, SSs, and SA constructs were .67, .65, and .66, respectively, which showed convergent validity and exhibited correlations between the observed factors within each latent variable. The AVEs of metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ were .57, .51, .56, and .59, respectively.

Discriminant Validity: To determine the extent to which the variables correlated with their factor rather than with another factor, discriminant validity was examined. Discriminant validity can be tested via various methods. The AVE is one of those methods used for examination. In the pilot study of the NI, the square root of the AVE of the latent variables was .83 and .80, which, in turn, is greater than the correlation between them (i.e., $r = .22$), confirming the discriminant validity of the measurement model. The square roots of the values of the AVEs of the latent variables of the SIP, SSs, and SA were .82, .80, and .81, respectively, which, in turn, are greater than the correlations between them (i.e., .40, .39 & .70), confirming the discriminant validity of the measurement model. The values of the square root of the AVE of the latent variables of metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ were .75, .71, .74, and .77, respectively, which are greater than the correlation coefficients between them ($r = .46$ to $.68$), revealing discriminant validity. Table 2 depicts the indicative values of the reliability and validity of the measures.

3.11. Data Analysis

Both descriptive and inferential statistical analyses were employed. The descriptive statistics and scores of the variables are presented descriptively via tables. The researcher used descriptive statistics basically to present basic information regarding the variables. By employing inferential statistics, inferences about the variable of interest in the population are made.

Data screening and assumptions checking for the statistical analyses were conducted on the univariate and multivariate levels first. The data screening task for multivariate levels, for example, is vital for identifying potential multicollinearity because multivariate tests are sensitive to extremely high correlations among predictor variables (Fidell et al., 2000). Hence, normality, linearity, homoscedasticity, singularity, multicollinearity and multivariate outliers were initially checked during the data screening process and at the beginning of every specific

statistical analysis. To inspect and identify outlying cases, histograms and boxplots were used. By investigating the missing value pattern, multiple imputation with the maximum likelihood method was applied to statistically address some of the missing values created by probable random error.

Exploratory Factor Analyses were employed to test consistency from sample to sample and to inspect the pattern of the items that indicate the already identified underlying factors of the NI, SI, and CQ measures without imposing a priori constraints. Because the factors under each variable have been theoretically assumed to be correlated with each other, oblique rotation was applied.

To investigate and understand the relationship between observed and unobserved variables and, consequently, to test model fit, CFA was used. The dataset of the pilot study was split into two parts to conduct the EFA and CFA on separate and independent data. Additionally, the general data of the main study data were subjected to CFA for robust validation with a larger dataset. In the pilot study, multigroup CFA was used, particularly to test MI between the Amharic- and English-language versions of the NI measure. Partial correlation was also employed during the pilot study to inspect the possible biasing effect on these measures of key variables, as they relied on self-reported responses.

A one-sample t-test was employed to know the level of students' NI, SI, and CQ. The Pearson correlation was used to explore the degree of relationship between variables and to determine whether a linear relationship existed before the predictive model was tested. To determine the proportion of variance in the NI scores explained by the variables of interest only (SI & CQ), multiple regression was used. To assess the degree of prediction of the criterion variable made by the predictor variables with and without demographic variables (i.e., age, sex, family SoE background, and original area of residence), sequential multiple linear regression, particularly, was used. The unique variance in the dependent variable

explained by each of the independent variables was examined. The relative contribution of each block to the model was assessed. The overall model, in terms of its ability to predict the criterion variable, was assessed and reported. Dummy coding was applied to assess the contribution of the categorical predictor variables in the regression model.

To analyze these statistics, IBM SPSS version 25 and AMOS 23 software were used, employing maximum likelihood estimation.

3.12. Overall Research Procedure

In general, the research was carried out in two main phases: a pilot study and a main study. More specifically, however, it went through different stages, including a vast review of related literature initially; developing a plan of action for activities; deciding on the research setting and the target population; dealing with measurement issues; adapting data collection instruments; translating and validating the instruments; determining sample size and sampling strategies; collecting data (twice); analyzing and discussing and reporting; preparing manuscripts for publication; and preparing monographs.

In light of these key activities and general procedures, first, a review of related literature to develop a theoretical background for the problem was performed. In the umbrella of the literature of psychology in general and social psychology in particular, theories, conceptual issues, and empirical results related to the title were reviewed. They have substantially become an integral part of the study, mainly the background, problem statement, objectives, conceptualization and operationalization of the study variables, and review of related literature sections.

Second, on the basis of a review of the vast related literature and measurements, data collection instruments were chosen, adapted, translated, and subjected to content validity examinations by experts before more stringent validation via pilot testing. This was one of the phases in which more time was spent to ensure that valid and reliable instruments were

exposed for piloting. As the study utilized self-reported data collection instruments, forward and backward translations of the scales were performed by using experts, as mentioned in the previous sections. The experts' comments and ratings were so immense that substantial modifications to the tools' items were made. The instruments (both in the Amharic and English language versions) were finally reviewed by a supervisor and became ready for piloting and subsequent refinement through statistical methods (see Appendix D & E).

After these rigorous validation processes were performed, the instruments were finally made ready for data collection for the main study. Before leaving Addis Ababa, nonetheless, the researcher held support letters from AAU (see Appendix F & G) and sent a copy of them to the already contacted assistant data collectors in advance to fix issues such as gaining access to the study sites, obtaining students' list from the registrar office or departments, and scheduling the dates of data collection beforehand. These were performed in March 2022 (for the pilot) and at the end of February 2023 (for the main study).

During both fieldwork times, a modest introduction to the general objective of the study and brief training on the particular data collection task were given to the assistant data collectors before the actual data collection started. At this stage of the data collection, the work officially started by meeting instructors and asking their permission to allow the data collection to be carried out for approximately 20 minutes during their normal classes. Filling out the Amharic language version of the main study questionnaires, indeed, took approximately 23 minutes on average. It was more common during the pilot study, taking approximately 25 minutes on average. The English language version participants took approximately 29 minutes to complete the questionnaires during the pilot study.

This support from the instructors on board was immense because the assisting data collectors knew most of them and were friends. Some of the instructors even helped in the process of drawing the sample participants, facilitating the sessions, and informing their

students to fill in the questionnaires carefully and seriously. This by itself was enormously helpful to obtain the trust of the participants and to obtain quality data from them at the end.

Every questionnaire comprised a separate ‘consent form’ page to be signed by the participants at the front (see Appendix H & I). A general introduction about the aim of the study and specific instructions on the instruments were given orally to the participants at the beginning of each data collection session. To provide more protection and assurance for any potential threats, participants were told to generate a three-digit code in a comprehensive rule set by the research team and to write it down on a blank space provided to it. It was planned to use the code given by the participants later in the data coding process as well for a complete and uniform dataset. However, the codes given by the participants were not found suitable (for example, the same code was generated by different participants), so a new code was ultimately given by the researcher. The data collection was conducted in group sessions, consisting of students with fewer than 20 participants in a classroom for better administration and maximizing the possibility of properly completing questionnaires.

It was initially assumed that the mere data collection of the pilot phase would take two days at each study site, but it actually took four days (from April 4 to April 7, 2022) at DDU and five days (from May 31 to June 4, 2022) at WU. There was an unexpected overlap of exam days with the already scheduled data collection days, especially in WU. Because of the high-temperature nature of Dire Dawa and its surroundings, data collection at DDU was possible only in the morning before 11:00 AM.

The data collection for the main study was conducted between March and May 2023, March 21 to 26 in DDU, March 29 to April 3 in ASTU, April 5 to 8 WkU, and May 15 to 19 in WU.

The data collection tasks in both rounds of fieldwork were performed by the main researcher (with the exception of WkU) and assisting data collectors. During the pilot study’s

data collection, a total of five assistants were involved at both sites. During the main study, eight assistant data collectors were used. Many instructors also participated voluntarily in one way or another in both rounds of fieldwork, but more particularly during the pilot study.

3.13. Ethical Considerations

Priority attention was given to ethical issues. A written permission was obtained from the copyright holders of the CQS instrument. The developers of the MEIM and TSIS have officially described that the instruments can be used for academic purposes and investigations without notifying them or asking permission. The principle of informed consent was obtained from all the participants, as per the ethical standards aligned with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards in the APA. Hence, each participant expressed his/her consent to participate in the study by signing the ‘consent form’. The participants were told to withdraw if they wanted to leave the study at any time (see Appendix H for more details of the terms). The main researcher and assisting data collectors tried to ensure privacy to avoid any potential threats that could be caused by being participants as much as possible. Techniques such as keeping the participants anonymous, employing pseudonyms (generated codes), and ensuring that the data obtained remained confidential and secure were employed to ensure privacy.

Furthermore, attention was given not to intrude into participants' personal preferences and any intention of pressuring them to give responses for the mere sake of obtaining information. An ethical clearance letter from the Research Ethics Committee of Addis Ababa University, College of Education and Behavioral Studies, School of Psychology, was also obtained (see Appendix J).

CHAPTER FOUR

Results

This chapter comprises the results of the two phases of the study, presented in two major parts. In Part One, the results of the pilot study are presented. This section predominantly reports the validation results of the adapted Amharic language versions of the instruments. Given the complexity of accurately measuring the constructs, a substantial portion of the dissertation is dedicated to this validation process. A rigorous approach was employed to ensure appropriateness of the instruments, and the results are reported. The demographic information of the participants is also included. A report on MI or language equivalence, of the NI measure—which was conducted to ensure more robust validation and to select the language version that demonstrated greater measurement accuracy—is incorporated. Intercorrelations among variables are reported to test linearity and to demonstrate the plausibility of prediction in contexts with limited data. The most important lessons learned from the pilot study and applied in the main study are also noted.

Part Two presents the findings of the main study, organized into five key sections. First, the results of the CFAs are reported, providing evidence for the structural validity of the instruments used in the study. Second, descriptive statistics and demographic information of the participants are presented to offer a comprehensive overview of the study sample. Third, the levels of NI, SI, and CQ among the students are examined and discussed. Fourth, the interrelationships among the key variables are explored to identify patterns of association. Finally, in the fifth section, the results of multiple regression analyses are reported, highlighting the extent to which the independent variables predict the dependent variable.

4.1. Results of the Pilot Study

The data for the overall social intelligence measure were found from 343 cases, after which two cases with extreme missing values of 36.4% and 20% were discarded from the

dataset at the initial stage. Two hundred thirty-seven (69%) participants were male, and 105 (31%) were female. One participant did not mention his or her sex. The mean age of the participants was 22.05 years ($SD = 1.30$). Twenty-six participants did not state their age. With respect to the original areas where the participants came from, 133 (38.8%) were from rural areas, and 194 (56.6%) were from urban areas of Ethiopia. Sixteen participants did not respond to the question about their area of residence. With respect to the family socioeconomic background of the students, 35 (10.2%), 56 (16.3%) and 246 (71.7%) participants were from high, low, and medium socioeconomic backgrounds, respectively. Six participants did not state their family socioeconomic status.

In the preliminary data screening stage of the pilot study, many problematic cases and cases that missed items in the respective measures were found. After those cases were discarded and cases that missed below 5% in terms of item-wise were statistically treated via the multiple imputation method, subsequent analyses were conducted. Consequently, the study was conducted on a sample of 343 participants.

After the data screening was completed, the general dataset was subject to assumption checking before factor analysis at the preliminary analysis phase. Significant problems were not observed in this regard. Importantly, the assumptions below were checked after the problematic cases were deleted from the dataset.

4.1.1. Checking for Outliers

To check for outliers, inspection of the histogram and boxplot was performed, and the results are reported herein. There were data points sitting on their own, which indicated outliers, on the histogram. However, they were too few to consider them as potential threats to the subsequent key statistical analyses. As shown in the boxplots (see Appendix K, Figures J1 to K3), nine cases (DDU115, WU329, DDU134, DDU090, DDU108, DDU100, DDU190, DDU180 & WU330) in the NI, seven cases in the SI (DDU134, DDU198, DDU200,

DDU111, DDU202, WU329 & DDU199) and four cases in the CQ (DDU90, DDU134, DDU104 & DDU200) measures deviated from the rest. When such points are identified, some statistical authors suggest changing the value to a less extreme value and including the case in the analysis without allowing the score to distort the statistics (Tabachnick & Fidell, 2007) instead of removing them from the data file.

However, the descriptive statistics (Table 3) can indicate how much these outlying cases are likely to be problematic. The difference between the *mean* and the 5% trimmed mean is an important indicator to determine. If the two mean values are very significantly different, these data points need to be held on for further investigation. Here, the two mean values for NI (50.38 & 50.83), SI (99.89 & 102) and CQ (103.73 & 104.49) cannot be taken as very different, although the SI measure showed a slightly increased difference. The implication, in general, is that the values were not very much different from the remaining distribution. As removing such cases is not advisable, they were retained.

4.1.2. Assessing Normality

According to Gravetter and Wallnau (2004), ‘normality’ is used to describe “a symmetrical, bell-shaped curve, which has the greatest frequency of scores in the middle with smaller frequencies toward the extremes” (p. 48). Normality can be assessed by using different techniques. Numerical methods (skewness and kurtosis indices), graphical methods (boxplots, histograms, P-P plots, and Q-Q plots) and formal normality tests (Kolmogorov–Smirnov tests) were initially used to assess the normality of the data from the pilot study.

Table 3 provides some information regarding the distribution of scores of the continuous variables (i.e., skewness and kurtosis). As the study employed parametric statistical techniques, this information is important for inspection. The skewness value provides an indication of the symmetry of the distribution. Kurtosis, on the other hand, provides information about the ‘peakedness’ of the distribution (Westfall, 214). A skewness and

kurtosis value of zero implies that the distribution is perfectly normal, which is very unlikely in the social sciences, according to scholars.

Positive skewness values indicate that scores are positively skewed, which means that scores are clustered to the left at low values of the graph. The negative skewness values indicate a clustering of scores at the high end of the graph. On the other hand, positive kurtosis values indicate that the distribution is rather peaked (i.e., clustered in the center). Kurtosis values below 0 indicate a distribution that is relatively flat (i.e., too many cases in the extremes) (Tabachnick & Fidell, 2013). They noted that skewness does not make a substantive difference in analyses with reasonably large samples. They added, “Kurtosis can result in an underestimate of the variance, but this risk is also reduced with a large sample (200+ cases)” (Tabachnick & Fidell 2007, p. 80).

Consequently, the data in the current study were found to be relatively normally distributed, with skewness and kurtosis values ranging from -.507 to -1.292 and from -.077 to 1.450 respectively. The skewness and kurtosis values indicated that the data were normally distributed. Hair et al. (2010) noted that skewness between -2 and +2 and kurtosis between -7 and +7 of a dataset are considered normally distributed. Curran et al. (1996) suggested normality thresholds of 2.0 and 7.0 for skewness and kurtosis, respectively, when assessing multivariate normality, such as factor analyses and MANOVA. Auxiliary graphs that show the normality of the scores are appended (see Appendix L, Figures L1 to L3).

Table 3.*Descriptive Statistics (n = 343)*

Variables	N	Minimum	Maximum	Mean	Std.		
					Deviation	Skewness	Kurtosis
Age	317	20	26	22.05	1.30	.445	-.192
Exploration	343	7	30	21.30	4.63	-.661	.354
Commitment	343	8	35	29.09	5.65	-1.292	1.091
Overall NI	343	15	65	50.38	8.49	-.927	.987
SIP	343	8	49	37.65	7.81	-.946	.913
SSs	343	6	42	31.03	7.52	-.908	.758
SA	343	6	42	31.22	6.73	-.659	-.077
Overall SI	343	20	132	99.89	16.64	-.958	1.450
Metacognitive CQ	343	6	28	22.05	4.49	-.912	.627
Cognitive CQ	343	6	42	24.73	7.71	-.507	-.158
Motivational CQ	343	5	35	27.74	6.10	-.987	.551
Behavioral CQ	343	5	35	26.20	6.41	-.843	.520
Overall CQ	343	33	140	103.73	19.62	-.606	.169

Note. NI = national identity; SI = social intelligence; SIP = social information processing; SSs = social skills; SA = social awareness; CQ = cultural intelligence. 5% Trimmed Mean of exploration = 21.25; commitment = 31.59; overall NI = 50.83; SIP = 38.16; SSs = 31.53; SA = 31.52; overall SI = 102; metacognitive CQ = 22.35; cognitive CQ = 28.00; motivational CQ = 28.21; behavioral CQ = 26.62; overall CQ = 104.49

The descriptive statistics above (Table 3) provide information about the NI, SI, and CQ variables with their factors. An important piece of statistical information that is essential for making decisions regarding outliers is the *5% trimmed mean*, as described previously. This value is obtained by removing the top and bottom 5% of cases and then calculating a new mean value (Pallant, 2020). As noted above, by comparing the original means of NI ($M =$

50.38), SI ($M = 99.89$) and CQ ($M = 103.73$) with their new trimmed means of NI (50.83), SI (102) and CQ (104.49), it is possible to see whether those extreme scores had a strong influence on the mean. If these two mean values are very different, investigating these data points further might be necessary. In the present pilot study, the differences were not large. The implication of these results is that there were no many outlying cases that would result in errant data outcomes.

Kolmogorov–Smirnov statistics were also examined to test normality. A nonsignificant result of the Kolmogorov–Smirnov test is usually considered an indication of normality. The Sig. values of the NI, SI, and CQ measures were $p < .05$, suggesting that they did not comply with the assumption. However, this is common in larger samples. The degree of impact was rechecked at the beginning of every specific statistical analysis employed in this study.

4.1.3. Exploratory Factor Analysis

An examination of the factor structure of the variables was performed to check that the factors were meaningfully correlated and represented by all adapted and translated items of the NI, SI, and CQ measures. Consequently, the measures were subjected to EFA.

Prior studies (see Chapter 5, Section 5.1) have suggested that NI is a two-factor structure that comprises exploration and commitment. Social intelligence has been conceived as a three-factor structure that includes SIP, SSs, and SA. Cultural intelligence has also been identified as a four-factor construct, including metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ.

On this basis, the present study in the pilot phase conducted EFA with the aim of validating whether the factor structure of the adapted measures could be consistent with those of previous studies, using a sample of senior undergraduate students in two public university settings in Ethiopia. The results are presented here, followed by an assumption checking report.

Assumption Checking.

The first step in FA, in general, is to assess the suitability of the data for the statistical analysis of factors. Among the most important assumptions to be assessed, sample size, the correlational strength of the items, linearity and significant outliers were emphasized and checked.

There is no common consensus among scholars regarding cutoffs of *sample size* for FA. For example, Gorsuch (1983) and Kline (1994) suggested that at least 100 subjects should be sampled for FA. According to Tabachnick and Fidell (2007), “.... A smaller sample size (e.g., 150 cases) should be sufficient if solutions have several high loading marker variables .80” (p. 613). They concluded that the overall sample size should be 150+ and that there should be a ratio of at least five cases for each of the variables. Other authors argued that it is not the sample size that should be of concern but the ratio of the participants to the items presented. For example, Nunnally (1978) suggested that a 10 to 1 ratio (ten cases for each item) can be sufficient for FA, although some scholars have suggested that a 5 to 1 ratio is adequate for the case in question (e.g., Tabachnick & Fidell 2013).

The current pilot study met the assumption of sample size adequacy for factor analysis, as it included 343 cases and 15 NI, 21 SI and 20 CQ measurement items. According to the KMO model, the index that shows sample adequacy ranges from 0 to 1. Guided by the KMO model, the KMO values of the present pilot study for NI, SI and CQ (after poorly functioning items were discarded) were found to be .925, .869 and .894, respectively, revealing the adequacy of the sample size for the EFA.

Bartlett’s test of sphericity was also performed, and the values were found to be significant. Bartlett’s test of sphericity tests the original correlation matrix as an identity matrix, indicating that the variables are unrelated and therefore unsuitable for structure detection or that they are correlated enough that the correlation matrix diverges significantly

from the identity matrix (Shrestha, 2021). The significant value ($p < .05$) indicates that factor analysis can be conducted on the dataset. In this pilot study, the Bartlett test of sphericity values for all the measures were found to be significant ($p < .05$), indicating that the data were good enough to run EFA (see Appendix M, Table M1).

The other important assumption when running an EFA is *the factorability of the correlation matrix*. This assumption dictates that the correlation matrix should show at least some correlations of $r = \geq .3$. With respect to the strength of the relationships among items (variables), scholars have suggested an examination of the correlation matrix for coefficients $> .3$ (e.g., Tabachnick & Fidell 2013). It is most commonly and widely recommended that the majority of the items' correlation coefficients be $\geq .3$. In the pilot study phase, with the exception of a few items, the majority of items had $\geq .3$ correlations (see Appendix A, Tables A1, A4 & A5). Thus, the specific assumption was not violated.

Because factor analysis is based on correlation, it is assumed that the relationships between the variables are *linear*. Unless there is clear evidence of a curvilinear relationship, authors (e.g., Pallant, 2020) proposed that it is safe to proceed to the analysis provided that an adequate sample size and ratio of cases to variables are attained.

Significant Outliers is the last, but not the least, assumption that was checked in this study and expected to be met to conduct the EFA. Factor analysis can be sensitive to outlying cases, as other multivariate analyses do so. As measures were taken at the initial data clearance and screening phase, extreme outliers were not found at this stage.

Results of the Exploratory Factor Analysis of the National Identity Measure.

In the EFA, two items of the NI measure (Item No. 2 & 4 before they were assigned as Exploration 2 & 3 in their specific NI dimension order in the SPSS) were found to be poor. Their correlation with the majority of the items was found to be negative (see Appendix A, Tables A1 & A3). Their commonality values were found to be very poor, resulting in values

of .030 and .025 for exploration items 2 and 3, respectively. These items were deleted, and significant improvement was shown in the indices of the measure. The total variance explained increased (from 64.085% to 71.224%), and noticeable differences were shown in the factor loading values of the remaining items.

To check and determine how many factors to extract, the Kaiser criterion (Kaiser, 1960) and scree plot (Catell, 1961) were used. By applying Kaiser's criterion, factors that had an eigenvalue of ≥ 1 were maintained. The eigenvalues for each factor are given (see Appendix N, Table N1). As scree plots are visually depicted figures, looking at the shape of the plot would provide important information regarding the factors. Hence, guided by Catell's (1961) scree test, it is observed in the figure (Appendix N, Figure N1) that there was a clear break between the second and third factors.

Table 4.

Factor Loadings of the Rotated Two-Factor Measure of the National Identity Construct (n = 343)

	Factor		Communalities
	1	2	
I have a strong attachment to my Ethiopian nationality	.950		.827
I am happy that I am an Ethiopian	.881		.720
I feel good about my Ethiopian cultural, historical, traditional, etc., backgrounds	.871		.723
I have a lot of pride in my Ethiopian nationality	.848		.705
I have a clear understanding of my Ethiopian nationality and what it means for me	.809		.787
I have a strong sense of belonging to my Ethiopian nationality	.774		.736
I understand pretty well what my Ethiopian nationality group membership means to me	.689		.521
I have spent time trying to find out more about my Ethiopian nationality, such as its history, traditions, customs, etc.		.954	.787
To learn more about my Ethiopian nationality background, I have often talked to people about it		.951	.813
I have explored seeking to know more about cultural issues of my Ethiopian nationality, such as special food, music, dressing, etc.		.820	.706
I have explored more about the historical facts of symbols of my Ethiopian nationality, such as the Ethiopian national flag		.757	.660
I have spent time trying to know the historical facts and cultural practices of other subgroups under Ethiopian nationality membership		.743	.679
I have spent time trying to learn about the festivals of Irreecha, Fichee-Chambalaalla, Ashenda, and so on		.715	.601
I participate in organizations or social groups that include most members of my Ethiopian fellows without considering their specific ethnicity, religion, gender, etc.			.030
I think a lot about how my life will be affected by my Ethiopian national group membership			.025

Note. Extraction Method: Maximum Likelihood; Rotation Method: Promax with Kaiser Normalization. Rotation converged in 3 iterations; Items ≤ 0.4 factor loadings suppressed. 1 = commitment; 2 = exploration.

Maximum likelihood extraction and promax rotation methods were employed. The factor loading structure (Table 4) shows that the items loaded on factor 1 were items 13, 5, 14, 9, 3, 6 and 7. All these items were *Commitment* measurement items of the national identity construct. The items on factor 2 were items 1, 8, 10, 12, 11 and 15. All these items, on the other hand, are the items that measure the *exploration* dimension of the national identity construct. It describes the degree of correlation between the items and the factors in terms of their order of strength of the relationship. Importantly, the factor loading values in the table refer to the EFA results obtained after the two items were deleted. The items are included at the end of the table simply to show the items' content and values and for the mere sake of reporting in general. The EFA results constituted the 13 items of the NI measure.

Table 4 also presents information about how much of the variance in each item was explained. In this case, item number 2 (Exp2) and item number 4 (Exp3), which appear at the end of the table, had poorly loaded communalities, with values of .030 and .025, respectively. Those items had values $< .3$, indicating that the items did not fit enough with the other items in the measure. This implies that these items ought to be discarded from the measure. All the remaining items had values greater than .6. This means that their greater communality values and their strong factor loadings on their respective factors caused the remaining items to be maintained in the measure. However, the two items that showed negative item correlations, in addition to their significantly lowest communality values, needed to be removed to improve the quality of the measure. Removing such items will likely increase the total variance explained as well. As a result, they were removed from the measure.

Therefore, the EFA results of the final 13-item NI measure showed that the commitment items strongly loaded on factor 1 and the exploration items strongly loaded on factor 2, explaining a total of 71.224% of the variance.

Results of Exploratory Factor Analysis of the Social Intelligence Measure.

The 21-item social intelligence measure of the Amharic language version was subjected to EFA. Consequently, two items (SS4 & SA7) were found unfit. They were negatively correlated with all the remaining items. They didn't show acceptable factor loading values. They yielded the lowest commonality values: SS4 (.190) and SA7 (.055). Hence, these items were removed. The EFA results presented below in Table 5 of the rotated three-factor of the SI construct show the values after the deletion of the two items. The items and their values are included in the table for the mere sake of reporting their values. They were not included in the computation of the EFA again; it reveals the result of the 19 SI items.

After these poorly functioning items were removed, the EFA results showed considerable change and progress, with strong loadings of items (see Table 5). The total variance explained increased from 62.515% to 65.531%. Significant differences in the factor loading values of the other items are also shown. The results revealed the presence of three factors in the social intelligence construct. The three factors explained a total of 65.531% of the variance, comprising 34.062%, 19.254%, and 12.215% of the variance, respectively (see Appendix N, Table N2).

Kaiser's criterion and a scree plot were used to check the already determined number of factors that were extracted by previous researchers. On the basis of Kaiser's criterion, factors that had an eigenvalue of ≥ 1 were maintained. The results of the scree test revealed that the slope of the curve levelled off between the third and fourth factors (see Appendix N, Figure N2).

Table 5.

Factor Loadings of the Rotated Three-factor Measure of the Social Intelligence Construct (n = 343)

Items	Factor			Commonalities
	1	2	3	
I can often understand what others are trying to accomplish without the need for them to say anything	.890			.794
I understand others' wishes	.858			.739
I understand other people's feelings	.847			.721
I can predict how others will react to my behavior	.843			.714
I can predict other people's behavior	.828			.687
I can often understand what others mean through their expressions, body language, etc.	.817			.671
I know how my actions will make others feel	.789			.637
I have no difficulties to fit in easily in social situations mostly		.852		.732
I know how to exhibit respect for others in different social situations		.792		.641
I am good at entering new situations and meeting people for the first time		.782		.617
I have no problems getting along with other people mostly		.782		.612
It doesn't take me a very long time to get to know others well mostly		.779		.614
I am good at getting on good terms with new people		.755		.563
People are mostly comfortable with me when I say what I think			.861	.745
I realize it when I offend others or make them feel bad			.827	.684
I am always mindful of my actions thinking seriously about others' reactions toward what I do			.779	.613

Factor Loadings of the Rotated Three-factor Measure of the Social Intelligence Construct
(continued)

Items	Factor			Communalities
	1	2	3	
I am not very surprised with the things people from a different or similar background			.760	.585
I often feel that it is not very difficult to understand others' choices			.748	.563
I can identify predictable and unpredictable people and treat them and/or act accordingly			.704	.509
I often feel uncertain if what I am doing is right around new people		-.446		.190
Other people become angry with me without explaining to me why				.055

Note. Extraction Method: Maximum Likelihood. Rotation Method: Promax with Kaiser Normalization.

Maximum likelihood extraction and promax rotation methods were employed. The rotated solution showed that all individual items of the measure significantly loaded on all the factors. Items 1, 2, 6, 9, 14, 17 and 19 measured the SIP dimension of the SI. That is, all the SIP items strongly loaded on factor 1. Items 4, 7, 10, 12, 15, 18 and 20 measured the SS dimension of the SI. Except for item 4, the SS items strongly loaded on factor 2. Items 3, 5, 8, 11, 13, 16 and 21 measured the SA dimension of the SI. Except for item 8, the remaining SA items strongly loaded on factor 3. There were no items found cross-loading on the factors. In terms of their order of strength of relationship, items 14, 9, 6, 17, 1, 19 and 2 had strong correlations with factor 1; items 7, 20, 10, 12, 15 and 18 had strong correlations with factor 2; and items 11, 16, 3, 5, 21 and 13 had strong correlations with factor 3.

Table 5 also presents the amount of variance explained by each item. The two poor items that were described at the end of the table (SS4 & SA8, which were subsequently encoded as SA7)

yielded unacceptable commonality values of .190 and .055, respectively, indicating that they did not fit with the remaining items in the measure. They also showed negative item correlations. Hence, they were deleted from the measure. All the remaining items had commonality values greater than .5.

In general, the EFA results of the final 19 items of the SI measure revealed that the SI was a three-factor construct: SIP, SSs, and SA. The SIP items strongly loaded on factor 1; the SSs items strongly loaded on factor 2; and the SA items strongly loaded on factor 3.

Result of Exploratory Factor Analysis of the Cultural Intelligence Measure.

Like the NI and SI constructs, the Amharic language version of the CQS, which consists of 20 items, was subjected to EFA.

When Kaiser's criterion and a scree plot were applied, the number of factors that were extracted and determined in previous studies were again identified. Hence, four factors were maintained. The four components yielded eigenvalues of 8.555, 2.058, 1.646 and 1.185, respectively. The four factors individually explained 40.655%, 8.327%, 6.231% and 3.959%, respectively. Hence, the results revealed that the Amharic language version of the CQ measure was a four-factor construct, explaining a total of 59.172% of the variance (see Appendix N, Table N3 & Figure N3).

Table 6.

Factor Loadings of the Rotated Four-factor Measure of the Cultural Intelligence Construct (n = 343)

Items	Factor				Communalities
	1	2	3	4	
I know the arts, crafts, music, and specific holidays of the Wolayta, Harari, Gamo, etc., cultures of Ethiopia	.922				.762
I know the favorite food and the feeding rules associated with in the Amhara, Somali, Hadya, Tigray and Guragie cultures in Ethiopia	.799				.738
I know the rules of dressing, hairstyle, and related cultural practices of the Hammer, Kambata, Afar, etc., cultures in Ethiopia	.793				.627
I know the cultural values, norms and religious beliefs of cultures in Ethiopia such as the Afar, Somali, Siltie, etc.	.668				.594
I know some vocabulary (e.g., greeting words) and rules of communication of languages in Ethiopia such as Guragigna, Oromifa, Tigregna, and so on	.563				.500
I know the legal and economic systems of the cultures in the Northern, Southern, Eastern, Western and Central parts of Ethiopia	.540				.350
I use facial expressions and vocals differently to suit different cross-cultural situations		.824			.637
I vary the rate of my speaking (e.g., pause & silence) when a cross-cultural situation requires it		.797			.616
I change my nonverbal behavior when a cross-cultural situation requires it		.752			.605
I change my verbal behavior (e.g., accent & tone) when a cross-cultural communication requires it		.730			.621

*Factor Loadings of the Rotated Four-factor Measure of the Cultural Intelligence Construct
(continued)*

Items	Factor				Communalities
	1	2	3	4	
I alter my facial expressions when a cross-cultural interaction requires it		.718			.598
I enjoy interacting with people from different cultures			.849		.677
I am curious to learn more and to know better about cultures that are new to me			.845		.715
I am confident that I can socialize with the locals in a culture that is new to me			.832		.664
I enjoy living in cultures that are unfamiliar to me and can adjust myself to deal with the stress associated with it			.517		.485
I am confident that I can get accustomed to the living systems (e.g., shopping conditions) of other cultures in Ethiopia			.490		.573
I try to adjust my cultural knowledge when I interact with people from a culture that is unfamiliar to me				.739	.616
I check the accuracy of my cultural knowledge when I interact with people from different cultures				.628	.480
I am conscious of my cultural knowledge when interacting with people from different cultural backgrounds				.573	.489
I am conscious of the cultural knowledge that I am going to apply at cross-cultural situations and/or interactions				.557	.487

Note. Extraction Method: Maximum Likelihood. Rotation Method: Promax with Kaiser Normalization.

The extraction and rotation methods used were the maximum likelihood and promax methods, respectively. All of the items were found to strongly load with their respective factors (see Table 6). The items loaded on factor 1 were items 3, 5, 6, 8, 9 and 10, all of which measured the cognitive CQ dimension of the CQ. The items on factor 2 were items 12, 13, 15, 17 and 18, all of which measured the behavioral CQ dimension of the CQ. The items loaded on factor 3 were items

11, 14, 16, 19 and 20; all of them measured the motivational CQ dimension of the CQ. The items that loaded on factor 4 were items 1, 2, 4 and 7; all of these items measured the metacognitive CQ dimension of the CQ. In terms of their correlational strength within the factors, items 9, 8, 10, 6, 5 and 3 yielded strong correlations with factor 1. Items 13, 15, 17, 12 and 18 had strong correlations with factor 2. Items 11, 16, 14, 19 and 20 were strongly correlated with factor 3. Items 2, 7, 1 and 4 had strong correlations with factor 4.

The degree of variance explained by each item ranged from .480 (item no. 7 or metacognitive 4) to .762 (item no. 9 or cognitive 5).

4.1.4. Confirmatory Factor Analysis

Following the EFA, CFA was conducted to check and test the plausibility of the multidimensional structure and factor structure of the NI, SI, and CQ constructs. It was conducted to examine the relationships between observed factors and latent variables. The observed indicators for each latent variable were identified, and their correlations were defined by conducting first-order and second-order CFA models. The CFA was performed on the second group of data, which constituted a sample of 173 participants.

Hu and Bentler (1999) recommended that to minimize Type I and Type II errors under various conditions, it is important to use the combination of one of the different types of fit indices, such as absolute fit indices, relative (or comparative) fit indices, parsimony fit indices, and those based on the noncentrality-based parameter. Thus, to determine whether the measurement model would fit the current sample data or not, the relative chi-square test (χ^2/df), goodness-of-fit index (GFI), incremental fit index (IFI), Tucker–Lewis index (TLI), Bentler–Bonett normed fit index (NFI), Bentler’s comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) were used.

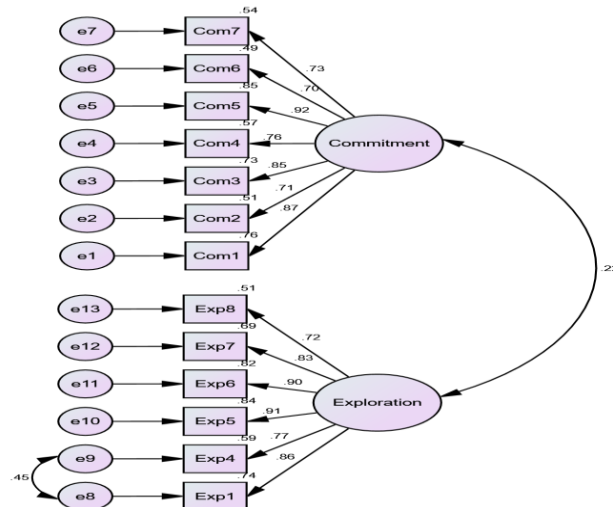
According to Collier (2020) and Hair et al. (2019), CFI, IFI, and TLI values of $\geq .90$ and RMSEA values of $\leq .08$ are considered adequate fits for a measurement model. RMSEA $\leq .05$, SRMR $\leq .08$, and CFI, IFI, and TLI $\geq .95$ values indicate excellent model fit (Browne & Cudeck, 1993; Collier, 2020). In addition, the rule of thumb of the relative chi-square test (χ^2/df) < 3 as an indicator of good model fit was used. Table 7 presents the summarized results of the fit indices of the measurement models.

Result of Confirmatory Factor Analysis of the National Identity Measure.

The adapted Amharic language version of the NI measure, which consists of 13 items, was subjected to confirmatory factor analysis. The results are presented below.

Figure 2.

Measurement Model of the Two-factor National Identity Measure



In the pilot study, the first model yielded values that showed a relatively good model fit, resulting in a relative chi-square test ($\chi^2/df = 2.242$), GFI = .895, IFI = .955, TLI = .944, NFI = .921, CFI = .954, RMSEA = .085, SRMR = .049. However, the RMSEA was $> .08$ ($p < .05$), so respecification of the measurement model was needed. On the basis of the modification indices

recommendations, an error term correlation between items 1 and 4 of the exploration factor was performed (see Figure 2). Consequently, the second model resulted in a relative chi-square test ($\chi^2/df = 1.830$), GFI = .912, IFI = .970, TLI = .963, NFI = .937, CFI = .970, RMSEA = .069 ($p > .05$), SRMR = .037. The variance explained by the observed variables (R^2) ranged from .512 (Exploration item 8) to .854 (Commitment item 5). This means that the explained variance ranged from 51.2% to 85.4%, and the unexplained variance or residual ranged from 14.6% to 48.8%.

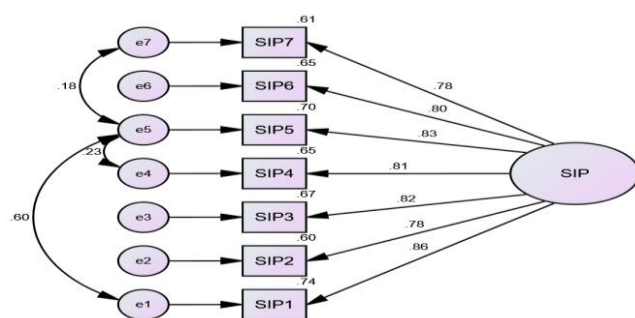
Result of Confirmatory Factor Analysis of the Social Intelligence Measure.

To examine the relationships between the observed factors and latent variables of the adapted Amharic language version of the SI measure, a confirmatory factor analysis was conducted next to the exploratory factor analysis. As noted before, the dataset was first split into two parts. Consequently, the CFA for the SI measure was also conducted on the second cluster of the dataset, which comprised 173 sample participants.

By using a first-order CFA test first, observed items (indicators) for each variable with its metric value were identified. To determine whether the data could fit the proposed measurement model or not, combinations of the various fit indices that were used for the NI measurement above were used.

Figure 3.

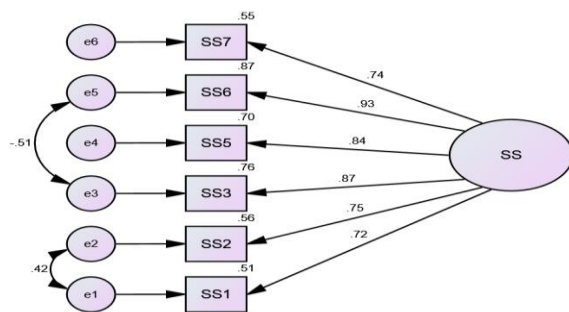
First-Order Measurement Model for Social Information Processing



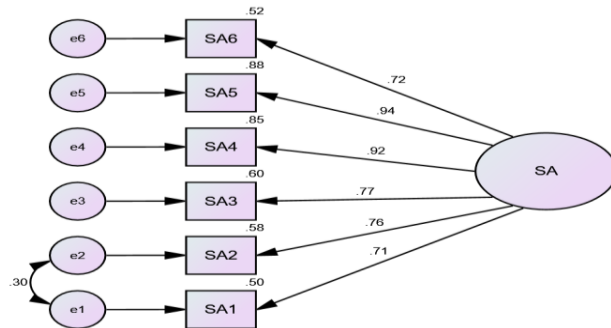
The SIP variable consists of seven items. On the basis of the recommendation of the modification indices, covariance of the error terms was needed. Accordingly, the correlation of the error terms between items 1 and 5 (e1 & e5), items 4 and 5 (e4 & e5) and items 5 and 7 (e5 & e7) was determined (see Figure 3). The model subsequently yielded a relative chi-square test ($\chi^2/df = 1.729$), GFI = .969, IFI = .992, TLI = .984, NFI = .981, CFI = .992, RMSEA = .065, ($p > .05$), SRMR = .021. The standard regression weight ranged from .781 (SIP7) to .858 (SIP1).

Figure 4.

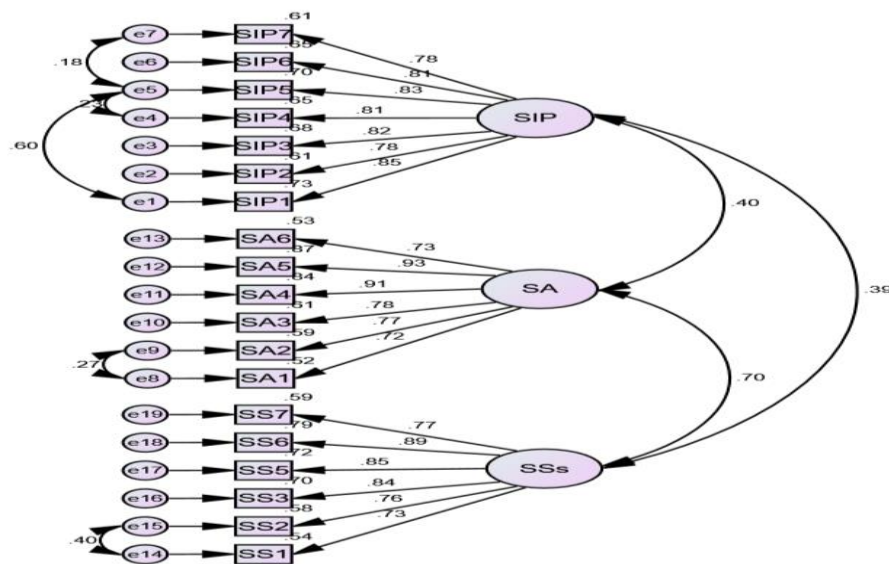
First-Order Measurement Model for Social Skill



The SS measurement model comprises six items. To improve the model, a correlation of error terms for this measurement model was also needed. After correlation of the error terms between items 1 and 2 (e1 & e2) and between items 3 and 6 (e3 & e5), as depicted in Figure 4, a relative chi-square test ($\chi^2/df = 1.237$), GFI = .984, IFI = .998, TLI = .995, NFI = .988, CFI = .998, RMSEA = .037, ($p = .554$), SRMR = .019, was performed. The standard regression weight ranged from .717 (SS1) to .931 (SS6).

Figure 5.*First-Order Measurement Model for Social Awareness*

The first-order measurement model of the SA had six items. For a better model fit, a correlation of error terms between item 1 and item 2 (e1 & e2) was conducted on the basis of the modification indices suggested by AMOS 23. Figure 5 shows a diagram of the measurement model. Consequently, a relative chi-square test was performed ($\chi^2/df = 1.458$), GFI = .978, IFI = .995, TLI = .991, NFI = .985, CFI = .995, RMSEA = .052, ($p = .424$), SRMR = .036. The standard regression weight was found to range from .709 (SA1) to .938 (SA5).

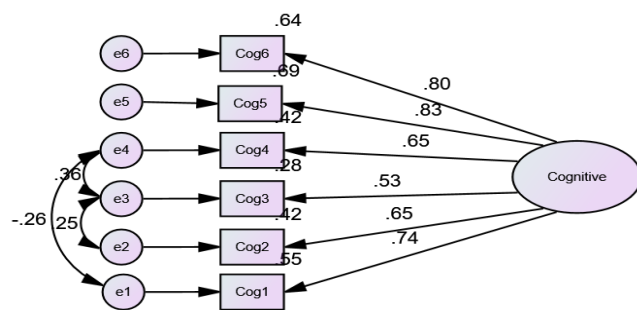
Figure 6.*Diagram of the Three-factor Social Intelligence Measurement Model*

The results of the confirmatory factor analysis of the social intelligence scale were the same as the first-order results of the factors (see Figure 6). It yielded values that indicated a good model fit; a relative chi-square test ($\chi^2/df = 1.430$), IFI = .977, TLI = .972, NFI = .926, CFI = .976, RMSEA = .050, ($p = .486$), SRMR = .054. The variance explained by the observed variables (R^2) ranged from .525 (SA1) to .870 (SA5). In other words, the explained variance ranged from 52.5% to 87%, so the unexplained variance or residual ranged from 13% to 47.8%.

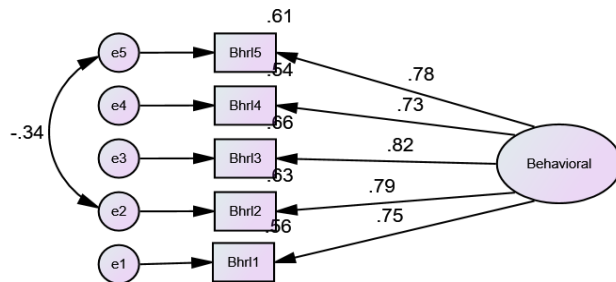
Result of Confirmatory Factor Analysis of the Cultural Intelligence Measure.

Figure 7.

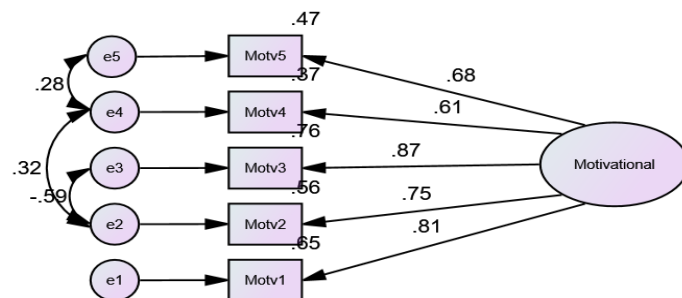
First-Order Measurement Model for Cognitive CQ



The CFA first-order measurement model of the cognitive CQ factor, which constituted six items, resulted in poor model fit, yielding a relative chi-square test ($\chi^2/df = 5.456$), GFI = .917, IFI = .910, TLI = .847, NFI = .892, CFI = .908, RMSEA = .161, ($p = .000$), SRMR = .060. Thus, the error terms were correlated (see Figure 7). The respecified model resulted in a chi-square test ($\chi^2/df = 2.055$), GFI = .976, IFI = .986, TLI = .964, NFI = .973, CFI = .986, RMSEA = .078, ($p = .192$), SRMR = .029. The standard regression weight was found to range from .525 (Cog3) to .829 (Cog5).

Figure 8.*First-Order Measurement Model for Behavioral CQ*

The first-order CFA measurement model of the behavioral CQ factor comprises five items. It produced a relative chi-square test ($\chi^2/df = 2.597$), GFI = .972, IFI = .981, TLI = .961, NFI = .969, CFI = .980, RMSEA = .096, ($p = .099$), SRMR = .029. The value of the RMSEA was slightly greater than the cutoff. Thus, modification was needed (see Figure 8). Consequently, the respecified model resulted in a chi-square test ($\chi^2/df = .971$), GFI = .991, IFI = 1.00, TLI = 1.001, NFI = .991, CFI = 1.00, RMSEA = .000, ($p = .620$), SRMR = .017. The standard regression weight ranged from 0.735 (Bhrl4) to 0.815 (Bhrl3).

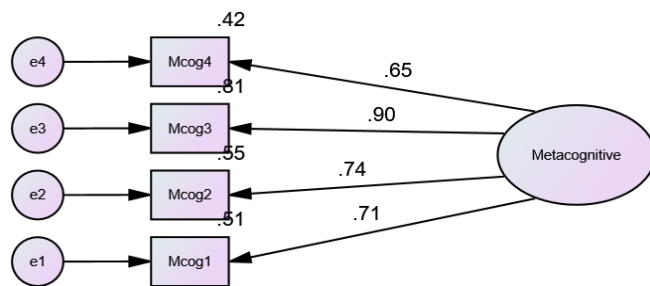
Figure 9.*First-Order Measurement Model for Motivational CQ*

The motivational factor consisted of five items. The first-order measurement model produced a relative chi-square test ($\chi^2/df = 8.532$), GFI = .917, IFI = .908, TLI = .814, NFI = .897, CFI =

.907, RMSEA = .209, ($p = .000$), SRMR = .053. Hence, correlation of the error terms had to be conducted (see Figure 9). Consequently, the respecified model resulted in a chi-square test ($\chi^2/df = 1.037$), GFI = .995, IFI = 1.000, TLI = .999, NFI = .995, CFI = 1.000, RMSEA = .015, ($p = .497$), SRMR = .014. The standard regression weight was found to range from .611 (Motv4) to .869 (Motv3).

Figure 10.

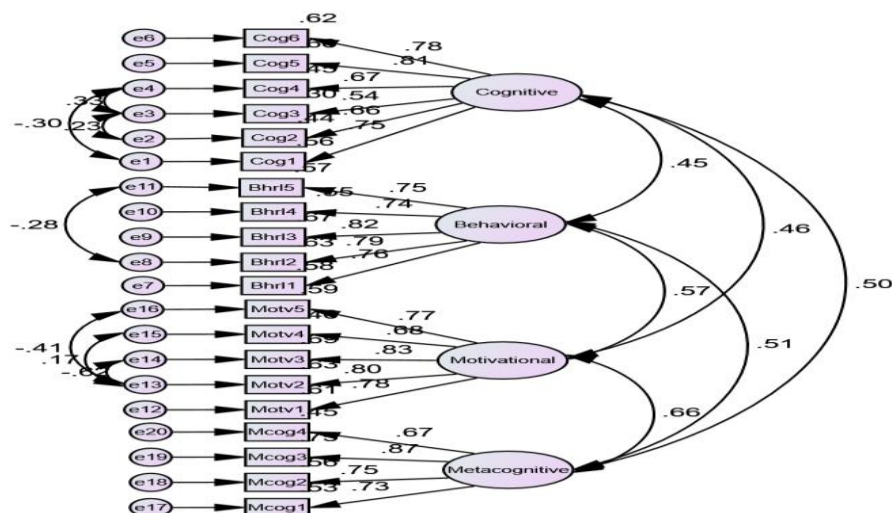
First-Order Measurement Model for Metacognitive CQ



The CFA first-order measurement model of the metacognitive CQ factor, which constituted four items, resulted in an excellent model fit, yielding a relative chi-square test ($\chi^2/df = .553$), GFI = .997, IFI = 1.003, TLI = 1.010, NFI = .996, CFI = 1.000, RMSEA = .000, ($p = .693$), SRMR = .012. Figure 10 depicts the model. The standard regression weight ranged from .647 (Mcog4) to .898 (Mcog3).

Figure 11.

Diagram of the Four-factor Cultural Intelligence Measurement Model



The CFA result of the four-factor cultural intelligence measurement model that comprised 20 items produced a relative chi-square test ($\chi^2/df = 1.677$), IFI = .942, TLI = .928, NFI = .867, CFI = .941, RMSEA = .063, ($p = .060$), SRMR = .066, which indicated a need for respecification. The correlation of the error terms was determined on the basis of the model modification indices (see Figure 11). Consequently, a relative chi-square test ($\chi^2/df = 1.470$), IFI = .974, TLI = .969, NFI = .923, CFI = .974, RMSEA = .052, ($p = .388$), and SRMR = .062 were obtained. The four-factor cultural intelligence measurement model was relatively the same as the results of the first-order CFA of the factors. The variance explained by the observed variables (R^2) ranged from .296 (Cog3) to .751 (Mcog3). That is, the explained variance ranged from 29.6% to 75.1%.

The loadings of the standardized regression weight for the 20 items of cultural intelligence ranged from .544 (Cog3) to .867 (Mcog3). All the correlations among the latent and observed variables were significant ($p < .05$), and the majority of the loadings were greater than .7. All indicator variables significantly loaded on the expected and identified latent variables.

Table 7.*Model Fit Indices and Acceptable Criteria*

Variables	Model Fit Indices Values								Acceptable (Yes/No)
	<i>CMN/DF</i>	<i>CFI</i>	<i>GFI</i>	<i>TLI</i>	<i>IFI</i>	<i>NFI</i>	<i>RMSEA</i>	<i>SRMR</i>	
NI	1.830	.970	.912	.963	.970	.937	.069	.037	Yes
SIP	1.729	.992	.969	.984	.992	.981	.065	.021	Yes
SSs	1.237	.998	.984	.995	.998	.988	.037	.019	Yes
SA	1.458	.995	.978	.991	.995	.985	.052	.036	Yes
Cognitive	2.055	.986	.976	.964	.986	.973	.078	.029	Yes
Behavioral	.971	1.00	.991	1.001	1.00	.991	.000	.017	Yes
Motivational	1.037	1.000	.995	.999	1.000	.995	.015	.014	Yes
Metacognitive	.553	1.000	.997	1.010	1.003	.996	.000	.012	Yes

Note. CMN/DF = Chi-square/degree of freedom, CFI = Comparative Fit Index, GFI = Goodness-of-Fit Index, TLI = Tucker–Lewis Index, NFI = Normed Fit Index, RMSEA = Root Mean Square Error of Approximation, SRMR = Standardized Root Mean Square Residual. NI = national identity, SIP = social information processing, SSs = social skills, SA = social awareness. Acceptable model fit indices for CMN/DF = < 3; CFI, GFI, TLI, IFI, NFI > .9; RMSEA, SRMR < .08.

4.1.5. Measurement Equivalence of the Two Language Versions

Measurement equivalence or invariance between the Amharic and English language versions of the NI measure was conducted on the data of the pilot study obtained from the two groups to ensure that the translated version had the same meaning as the original MEIM. This specific analysis was also used to determine which language version was better for use in the main study. Three hundred forty-three participants in the Amharic version and 286 participants in the English

version participated in the study. The four types of MI (configural, metric, scalar and residual) were examined.

By employing a test of confirmatory factor analysis, the observed indicators (items) for each variable with its metric value were identified. Before the MI test, two CFAs were conducted for the Amharic and English versions. Given that the latent structure was multifactorial (i.e., made up of two factors), the pattern of factors and factor loadings was confirmed by the CFA. Item–factor relationships were also defined. To show the predictive power and the extent to which variations are explained by each item, R-squared values are also given (see Table 8). All values in square brackets in this specific section represent the values for the English version.

To determine whether the current sample data fit the measurement model or not, the relative chi-square test (χ^2/df), CFI, IFI, TLI, RMSEA and SRMR (see Table 9) were used.

Table 8.

Standardized Regression Weights and proportion of variances of the Measure: Amharic [English]

Item	Factor Loading		R^2
	<i>Commitment</i>	<i>Exploration</i>	
2. I have a clear understanding of my Ethiopian nationality	.711 [.674]		.505 [.454]
3. I am happy that I am an Ethiopian	.778 [.712]		.605 [.506]
4. I have a strong sense of belonging to my Ethiopian nationality	.697 [.657]		.486 [.431]
5. I understand pretty well what my Ethiopian nationality group membership means to me	.642 [.625]		.412 [.390]
7. I have a lot of pride in my Ethiopian nationality	.781 [.749]		.610 [.561]
11. I have a strong attachment to my Ethiopian nationality	.757 [.756]		.573 [.571]
12. I feel good about my Ethiopian cultural, historical, traditional, etc., backgrounds	.687 [.666]		.471 [.443]
1. I have spent time trying to find out more about my Ethiopian nationality, such as its history, traditions, customs, etc.		.875 [.586]	.766 [.343]
6. To learn more about my Ethiopian nationality background, I have often talked to other people about it		.682 [.673]	.465 [.452]
8. I have explored seeking to know more about cultural issues of my Ethiopian nationality, such as special food, music, dressing, etc.		.736 [.718]	.541 [.515]
9. I have spent time trying to know the historical facts and cultural practices of other subgroups under Ethiopian nationality membership		.807 [.601]	.651 [.362]
10. I have explored more about the historical facts of symbols of my Ethiopian nationality, such as the Ethiopian national flag		.730 [.749]	.471 [.561]
13. I have spent time trying to learn about the festivals of <i>Irreecha</i> , <i>Fichee-Chambalaalla</i> , <i>Ashenda</i> , and so on		.644 [.674]	.415 [.454]

The variance explained by the observed variables (R^2) for the Amharic version, for example, ranged from .415 (exploration item 13) to .766 (exploration item 1). This means that the

explained variance ranged from 41.5% to 76.6%. For the English version, the variance ranged from .362 (exploration item 9) to .571 (commitment 11). Comparatively, the Amharic versions of the items explained greater variance than did the English versions (see Table 8 for more detail).

Table 9.

Model Fit Indices for the Adapted MEIM (Amharic, $n = 343$; English, $n = 286$)

Model	χ^2	df	χ^2/df	CFI	IFI	TLI	RMSEA	SRMR
A. 2-Factor Amharic Version	140.250	61	2.299	.966	.966	.956	.062	.048
B. 2-Factor English Version	140.942	64	2.202	.945	.945	.933	.065	.051

Note. χ^2 = chi-square; df = degree of freedom; CFI = comparative fit index; IFI = incremental fit index; TLI = Tucker–Lewis index; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean square residual.

Table 9 depicts the model fitness indices for both the Amharic and English versions of the measure. The model for both versions yielded values of good model fit indices ($\chi^2 = 140.250$; $p < .05$, CFI = .966; IFI = .966; TLI = .956; RMSEA = .062; and SRMR = .048 for the Amharic version) and ($\chi^2 = 140.942$; $p < .05$, CFI = .945; IFI = .945; TLI = .933; RMSEA = .055; and SRMR = .051 for the English version).

Table 10.

Goodness-of Fit Indices and Variations of Statistical Values of the MI for the Amharic and English Versions of the MEIM

Model	χ^2	df	CFI	RMSEA, 90% CI	SRMR	$\Delta\chi^2$	Δdf	ΔCFI	$\Delta RMSEA$	$\Delta SRMR$
Configural	252.157	122	.965	.041 (.034, .048)	.047	-	-	-	-	-
Metric	259.537	133	.966	.039 (.032, .046)	.053	7.38	11	.001	-.002	.006
Scalar	276.841	144	.964	.038 (.032, .045)	.046	17.304	11	-.002	-.001	-.007
Residual	389.423	157	.937	.049 (.043, .055)	.053	112.582	13	-.027	.011	.007
Partial invariance	278.060	155	.967	.036 (.029, .042)	.046	1.219	11	.003	-.002	0

Note. χ^2 = chi-square; df = degree of freedom; CFI = comparative fit index; RMSEA = root-mean-square error of approximation; CI = confidence interval; SRMR = standardized root-mean-square residual; ΔCFI = change in CFI (all values not significant); $\Delta RMSEA$ = change in RMSEA (all values not significant); $\Delta SRMR$ = standardized root-mean-square residual.

Table 10 shows the full results of the examination of measurement invariance. In the *configural invariance* testing of the arrangement across groups, the parameters were freely estimated in each group, resulting in a good general model. All of the paths were statistically significant in each group. The values of the CFI, RMSEA and SRMR were found to be more than adequate, yielding .965, .041 and .047, respectively.

By constraining the factor loadings to make them equal across groups, a model to examine the *metric invariance* was generated next. One approach is to carry out a chi-square difference test, which tests whether the model represents a significantly worse fit to the data than the previous model does (i.e., configural invariance; $\chi^2_{\text{difference}} = \chi^2_{\text{metric}} - \chi^2_{\text{configural}} = 259.537 - 252.157 = 7.38$). The same computation was performed for the degree of freedom; $df_{\text{difference}} =$

$df_{metric} - df_{configural} = 133 - 122 = 11$. This is rooted in the assumption that the model with the equality constraints (i.e., metric invariance) was nested within the configural model so that it is possible to test whether there is a statistically significant reduction in fit as a result of adding the equality constraints. Assuming $df = 11$, $\alpha = .05$, the chi-square test p -value is .76. This demonstrated that there was no statistically significant difference in the chi-square values, confirming that the metric invariance model's assumption holds true.

Another way to test MI is to inspect the differences in values of indices such as the CFI, RMSEA and SRMR between models. A model with a higher CFI is assumed to locate the data more accurately than a model with a lower CFI. When equality constraints are imposed, it is usually expected that the model with the imposed equality constraints fits at least somewhat worse than the model without those constraints. A frequently applied criterion for a nested model is $\Delta CFI \leq -.01$ to determine whether the use of equality constraints leads to a significantly worse fit than the earlier model (without those constraints) (Cheung & Rensvold, 2002). Other researchers have also suggested the use of other alternative fit indices for determination (e.g., $\Delta RMSEA$, $\Delta SRMR$; Meade et al., 2008). Chen (2008) also recommended a criterion of a $-.01$ change in CFI, paired with changes in RMSEA of .015 and SRMR of .030 (for metric invariance) or .015 (for scalar or residual invariance).

For the present metric invariance test, ΔCFI , $\Delta RMSEA$ and $\Delta SRMR$ were found to be .001, -.002 and .006, respectively. The values indicated that the improvement in model fit was not significant with the imposition of the equality constraints. Therefore, the results of the fit indices change with the results of the chi-square test, which shows that the application of the equality constraints results in a nonsignificant drop-in fit. Consequently, it is concluded that metric

invariance was supported. The results generally indicated the presence of metric invariance, inspecting some of those indices of model fitness.

On the basis of the assumption that metric invariance holds, it was checked for *scalar (or strong) invariance*, which is the invariance of intercepts for indicator variables. Essentially, this is a test of whether the item intercepts are consistent/invariant across groups. Without further investigation of the estimates and intercepts, the values of ΔCFI , $\Delta RMSEA$ and $\Delta SRMR$ were found to be -.002, -.001 and -.007, indicating scalar invariance. Nonetheless, a series test of intercepts was performed by relaxing the equality of the constraints to improve the model by determining the intercepts that were somewhat noninvariant and resulted in values of lower model fit indices. The chi-square difference test was used for comparisons. However, a significant difference was not obtained; thus, the baseline scalar invariant model was maintained.

Finally, residual invariance was tested. The changes in RMSEA and SRMR were within acceptable ranges ($\Delta RMSEA = .011$ and $\Delta SRMR = .007$), but the change in CFA was slightly outside the range given as a cutoff, yielding $\Delta CFI = -.027$. Consequently, score tests were performed to test each residual for invariance. The partial invariance model, where the residual variance for ‘Exploration items 1 & 4’ were freely estimated across the groups, resulted in changes in CFA, RMSEA and SRMR ($\Delta CFI = .003$, $\Delta RMSEA = -.002$ and $\Delta SRMR = 0$). On the basis of the less invariant parameters identified, the fit of a partial model was examined, where all factor loadings, intercepts and residuals were constrained equal except the residual variance related to ‘Exploration 1 & 4’, against the model supposing full scalar invariance. Compared with the other models, apart from residual invariance, a significant difference was not observed.

4.1.6. Intercorrelations among Variables

The results in Table 11 below show the intercorrelations between the factors and variables of the study. The correlation table shows that there was no variable that was negatively related to another variable. In terms of the strength of relationships, medium and strong positive correlations between national identity and social and cultural intelligence were found.

Table 11.

Pearson Correlation Coefficient between Factors and Variables ($n = 343$, $p < .05$)

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Exploration	-											
2. Commitment	.55**	-										
3. Metacognitive	.36**	.42**	-									
4. Cognitive	.27**	.27**	.48**	-								
5. Motivational	.33**	.43**	.61**	.48**	-							
6. Behavioral	.26**	.31**	.47**	.45**	.57**	-						
7. SIP	.16**	.18**	.37**	.29**	.30**	.35**	-					
8. SSs	.33**	.32**	.40**	.28**	.48**	.41**	.33**	-				
9. SA	.17**	.09	.23**	.13*	.25**	.22**	.26**	.50**	-			
10. NI	.85**	.91**	.45**	.30**	.44**	.33**	.19**	.37**	.14*	-		
11. CQ	.38**	.44**	.76**	.80**	.82**	.79**	.41**	.49**	.26**	.47**	-	
12. SI	.29**	.26**	.45**	.32**	.46**	.44**	.72**	.81**	.75**	.31**	.52**	-

** . Correlation is significant at the 0.01 level (2-tailed), * . Correlation is significant at the 0.05 level (2-tailed); SIP = social information processing, SSs = social skills, SA = social awareness, NI = national identity, CQ = cultural intelligence, SI = social intelligence.

In particular, social intelligence was found to be positively correlated with national identity ($r = .31$, $p < .01$), and cultural intelligence was found to be positively correlated with national identity ($r = .47$, $p < .01$), indicating that students with greater social and cultural intelligence are likely to have greater national identity. Similarly, social intelligence was found to be positively

correlated with cultural intelligence ($r = .52, p < .01$), indicating that students with greater social intelligence could also have greater cultural intelligence.

Partial Correlation.

This statistical technique is usually performed when we speculate that an additional variable might contaminate the variables of interest. Therefore, by statistically controlling and/or removing the influence of the confounding variable assumed to influence the relationships, it is likely possible to obtain clearer and more truthful data results that would provide an indication of the relationships among our key variables. Accordingly, to control for the possible biasing effect in self-reported measures of the MEIM, TSIS, and CQS, partial correlation was used to explore the relationships among the NI, SI, and CQ constructs during the pilot study phase. That is, the influence of responding in a socially desirable manner was assessed (see Table 12).

Table 12.

Pearson Product-moment Correlations Between National Identity, Social Intelligence, Cultural Intelligence, and Social Desirability ($n = 343$)

Control Variables	Variables	NI	SI	CQ	SDR
None*	NI	-	.31**	.47**	.14
	SI		-	.52**	.14
	CQ				.18
	SDR				-
SDR	NI	-	.30	.45	
	SI		-	.51	
	CQ			-	

*, Zero-order correlations; **, The correlation is significant at the 0.01 level (2-tailed); NI = national identity; SI = social intelligence; CQ = cultural intelligence; SDR = socially desirable responses.

Table 12 provides two different types of information in two sections: the Pearson product–moment correlation between the NI and the SI and CQ (without controlling the SDR) and the correlation between the NI and the SI and CQ (controlling the SDR). When no control variable was added in operation, the correlation between NI and SI was $r = .31$, and the correlation between NI and CQ was $r = .47$. When the SDR variable was included, partial correlations between NI and SI and between NI and CQ were found, with $r_{\text{partial}} = .30$ and $r_{\text{partial}} = .45$, respectively. When each of the two correlation coefficients (.31 with .30) and (.47 with .45) are compared, only a small decrease in the strength of the correlation is obtained. This suggests that the observed relationships between the variables were not due to the influence of responding to the items in a socially desirable manner.

4.2. Lessons Learned from the Pilot Study and Recommendations for the Main

Study

The overarching lessons that were assumed to be taken from phase one (pilot study) were achieved: (a) the feasibility of the procedure to achieve the objectives of the study was checked, and (b) the adapted instruments were validated enough to be used for the main study. In addition to these important purposes, decisions on the language version of the instruments were made, and some modifications were made before data collection for the main study, considering the following two particular issues:

First, using the Amharic language version of the instruments was far more worthwhile than the English version was. Apart from the superiority of the psychometric properties shown, approximately one-fifth of the questionnaires were not appropriately filled out.

The researcher has remained speculative of the occurrence that this might be because of language barriers. There were reasons for this judgment; (a) although it was not quantitatively

reported and formally accounted for, many participants asked the meanings of the majority of the items while they were filling out or ticking a mark; (b) many participants were found confusing ‘religion’ with ‘region’ so that they filled in the region where they had come from for the question of religion; and (c) a significant number of participants were notably seen being perplexed on the term “ethnic background” on the background section of the questionnaires so that they filled out unrelated stuff, keeping there were also many participants who declined to describe. However, a greater quality turnaround was found in the equivalent translated Amharic versions of the questionnaires.

Second, examining the levels of NI, SI, and CQ was not initially considered one objective of the study. However, it was suggested that it be relevant to the area in general and to the dissertation in particular. Consequently, it was implemented in the main study.

2.3. Results of the Main Study

4.3.1. Demographic Information and Descriptive Statistics Results

The data were obtained from 441 respondents; 295 males (66.9%) and 138 females (31.3%) participated. Eight of the participants did not describe their sex. The mean age of the participants was 22 years ($SD = 1.255$). Thirty-one participants did not state their age. Two hundred sixty participants (59%) were from urban areas, and 158 (35.8%) were from rural areas of Ethiopia. Twenty-three participants did not mention where they were originally from for the urban–rural question. Concerning family socioeconomic background, 342 (77.6%) were from medium socioeconomic backgrounds, 42 (9.5%) were from low socioeconomic backgrounds, and 35 (7.9%) were from high socioeconomic backgrounds. Twenty-two participants did not describe their family socioeconomic background.

The maximum and minimum values demonstrated that sufficient ranges of diversity and variability in response were obtained (see Table 13). Before the multivariate analysis was conducted, data screening was performed. Some outlying cases and missing values at the preliminary stage of the analysis were found. By inspecting the histogram and boxplot, a few data points were found to be outliers. The values of these data points could not seriously affect the analyses and did not lead to errant data outcomes. Table 13 also depicts the data distribution, presenting the 5% trimmed mean, skewness, and kurtosis values. The difference between the mean and the trimmed mean values of each variable was not large. This implies that the few outlying cases in the dataset were not too far from the rest. The skewness and kurtosis values indicated that the data were normally distributed.

4.3.2. Confirmatory Factor Analyses Results

Confirmatory factor analyses were also conducted in the main study to validate the results obtained in the pilot study with a greater sample size. In this section, the plausibility of the multidimensional structure of the National Identity, Social Intelligence and Cultural Intelligence constructs was tested with a better sample size via CFA. Similarly, in the pilot study, the observed indicators (items) for each variable were identified by conducting a first-order CFA. However, they are not presented here for the sake of avoiding repetitiveness. The model fit indices results of the initial and respecified measurement models of each measure are reported. The CFAs were performed on the dataset, which constituted a sample of 441 senior students in regular undergraduate programs.

The combinations of different types of fit indices, such as absolute fit indices, relative fit indices, parsimony fit indices, and those based on noncentrality-based parameters, were used to determine model fitness. Accordingly, the relative chi-square test (χ^2/df), incremental fit index

(IFI), Tucker–Lewis index (TLI), Bentler–Bonett normed fit index (NFI), Bentler–comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) were used to determine whether the adapted measurement model would fit the current sample data. Standardized estimates (β) and squared multiple correlations (R^2) are also reported to show the weights and proportions of explained variances. In evaluating the measurement model through CFA, Collier (2020) recommends reporting the standardized estimate along with the proportion of explained variance. This approach facilitates the comparison of indicator weights and variance explained.

Confirmatory Factor Analysis Results for National Identity.

In the CFA of the second phase study of national identity, the initial model yielded values of model fit indices that showed a relatively good model fit, resulting in $\chi^2 = 280.381$, $df = 64$, p value = .000, CMIN/DF = 4.381, GFI = .906, IFI = .944, TLI = .944, NFI = .944, CFI = .943, RMSEA = .088, SRMR = .040.

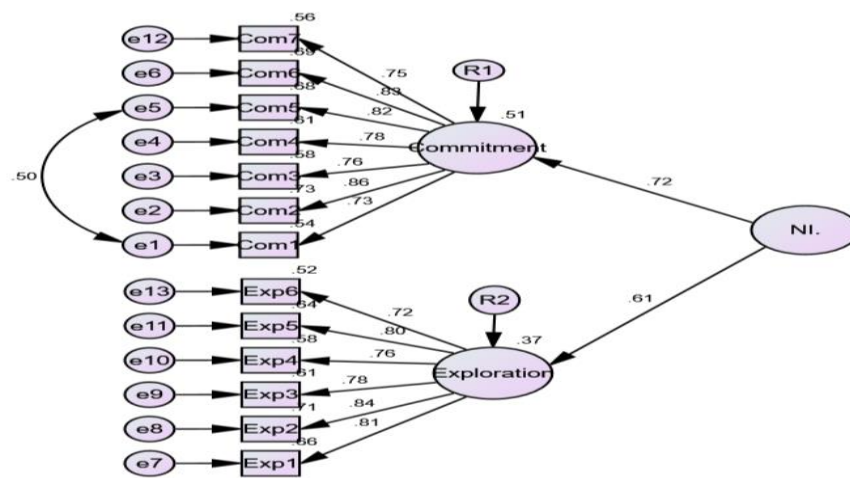
However, the RMSEA was $> .08$, and the CMIN/DF was $> .3$. The correlation of the error terms between items 1 and 5 of the commitment factor was accounted for to improve the model. Consequently, the second model resulted in $\chi^2 = 186.464$, $df = 63$, p value = .000, CMIN/DF = 2.960, GFI = .937, IFI = .968, TLI = .960, NFI = .952, CFI = .968, RMSEA = .067, SRMR = .038.

The measurement model for national identity was found with $\chi^2 = 186.464$, $df = 63$, p value = .000, CMIN/DF = 2.960, GFI = .937, IFI = .968, TLI = .960, NFI = .952, CFI = .968, RMSEA = .067 (90% CI [.056, .078]), SRMR = .038, which indicated a good model fit. The confidence interval suggests that it is possible to be 90% confident that the true RMSEA value lies between .056 and .078, indicating a good level of precision. Furthermore, standardized residual

covariances were evaluated against a criterion value of 2.58 to determine whether the final measurement model was well specified. They fell between -.022 and 1.707. According to Collier (2020), a model with standardized residual covariances < 2.58 is well specified. Hence, the CFA revealed that the national identity measurement model was well specified for undergraduate senior public university students in Ethiopia.

Figure 12.

Measurement Model of the National Identity Construct



All the standardized factor loadings (β) were found to be significant at $p < .001$ and ranged from .72 to .86. The squared multiple correlations (R^2) ranged from .52 (Exploration item 6) to .73 (Commitment item 2). This means that the explained variance ranged from 52% to 73%, which in turn, the unexplained variance or residual ranged from 27% to 48%. Similarly, the standardized factor loading (β) values of the unobserved variables (commitment and exploration) were found to be .72 and .61, respectively (see Figure 12). The variances explained by the unobserved variable (R^2) were found to be .51 (commitment) and .37 (exploration). In general, the factor loadings showed that the indicators highly correlated with their respective factors, suggesting a large effect size, according to Cohen (1988).

The measurement model for national identity contained 91 informational pieces provided by the data (distinct sample moments) and 28 distinct parameters to be estimated. This yielded 63 degrees of freedom (91-28), which indicated an overestimated model. The model consisted of 31 variables: 13 observed and 18 unobserved. It had 30 total regression weights, of which 11 were freely estimated and 19 were fixed. It also comprises 1 covariance and 16 variances, all of which are freely estimated. The measurement model for national identity, in general, had 47 factors; 28 were freely estimated, and 19 were fixed.

Confirmatory Factor Analysis Results for Social Intelligence.

To revalidate the relationships between the observed factors and latent variables of the social intelligence construct, CFA was conducted on the main study data. The initial model for social intelligence resulted in $\chi^2 = 476.472$, $df = 149$, $p \text{ value} = .000$, $CMIN/DF = 3.198$, $GFI = .897$, $IFI = .936$, $TLI = .926$, $NFI = .909$, $CFI = .935$, $SRMR = .051$, and $RMSEA = .071$ ($p > .05$). For better model fit, covariance between $e3$ and $e4$ and between $e8$ and $e9$ was performed. Consequently, $\chi^2 = 390.849$, $df = 147$, $p \text{ value} = .000$, $CMIN/DF = 2.659$, $GFI = .914$, $IFI = .952$, $TLI = .944$, $NFI = .925$, $CFI = .952$, $SRMR = .050$, and $RMSEA = .061$ (90% CI [.054, .069]), indicating a high precision level. The standardized residual covariances were between .014 and 2.00, indicating that the model was well specified.

The loadings of the standardized regression weight (β) for the 19 items of social intelligence were found to range from .66 (social skills item 1) to .85 (social skills item 5).

The variance explained by the observed variables (R^2) ranged from .441 (Social Skills item 1) to .716 (Social Skills item 5), which means that the explained variance ranged from 44.1% to 71.6%, respectively. All the correlations among the latent and observed variables were significant at $p < .001$, and the majority of the loadings were greater than .7, significantly loading

on the expected and identified latent variables. Using the rules of thumb (Tabachnick & Fidell, 2007), all the factor loadings were considered fair to excellent, and all indicator variables significantly loaded on the expected latent variable.

Figure 13.

Measurement Model of the Social Intelligence Construct

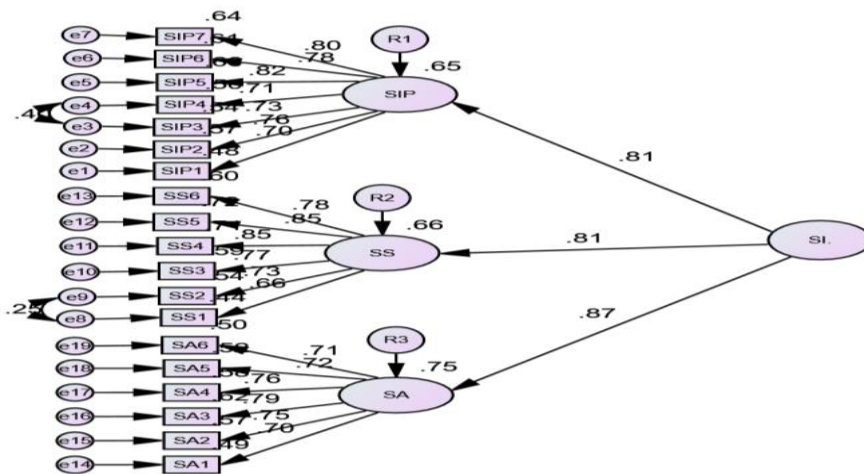


Figure 13 shows the measurement model diagram along with the standardized estimates for the social intelligence measure, which was obtained from AMOS via CFA. All the indicators were reflected by their respective unobserved variables. The unique variances that could not be explained by the unobserved factors were represented by the measurement error (e) of each indicator. The measurement model for social intelligence contains 190 distinct sample moments (or the number of informational pieces provided by the data) and 43 distinct parameters to be estimated. This resulted in 147 (190-43) degrees of freedom, indicating an overestimated model. The model comprised 45 variables, of which 19 were observed variables and 26 were unobserved variables.

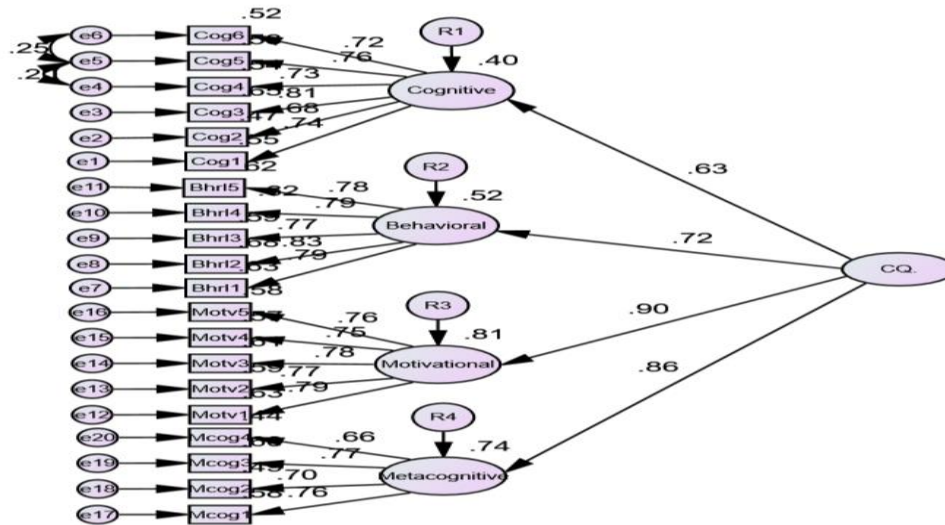
The model had 44 regression weights in total, 18 of which were estimated and 26 of which were fixed. It also consisted of two covariances and 23 variances, all of which were estimated. In general, the final measurement model for social intelligence had 69 factors in total, 43 of which were estimated and 26 of which were fixed.

As shown in Figure 13, the CFA results validated the theoretical underpinnings of the multidimensional notion of social intelligence, which is a combination of the three dimensions of SIP, SSs, and SA (Silvera et al., 2001).

Result of Confirmatory Factor Analysis of the Cultural Intelligence Measure.

The CFA result of the four-factor cultural intelligence measurement model that comprised 20 items produced a $\chi^2 = 441.085$, $df = 164$, $p \text{ value} = .000$, $CMIN/DF = 2.690$, $GFI = .905$, $IFI = .944$, $TLI = .935$, $NFI = .944$, $CFI = .944$, $RMSEA = .062$, $SRMR = .047$, which indicated a need for respecification for a better model fit. On the basis of the model modification indices, the correlation of the error terms between items e4 and e5 and between items e5 and e6 was conducted. Consequently, $\chi^2 = 408.979$, $df = 162$, $p \text{ value} = .000$, $CMIN/DF = 2.525$, $GFI = .913$, $IFI = .950$, $TLI = .941$, $NFI = .920$, $CFI = .950$, $RMSEA = .059$ (90% CI [.052, .066]), and $SRMR = .044$ were obtained.

All the loadings of the standardized regression weight (β) for the 20 items of the CQ measure were found to be significant at $p < .001$ and ranged from .68 (cognitive CQ item 2) to .82 (behavioral CQ item 2). The majority of the loadings, with the exception of one item (Metacognitive CQ item 4), were greater than .7. The R^2 ranged from .47 (cognitive CQ item 2) to .68 (behavioral CQ item 2). That is, the explained variance ranged from 47% to 68%. All the indicator variables significantly loaded on the expected and identified latent variables (see Figure 14).

Figure 14.*Measurement Model of the Cultural Intelligence Measure*

After the first-order model was examined, a general measurement model test of the CQ was constructed to determine the regression weight of each of the CQ factors toward the CQ construct and to define the general measurement model. The theorized measurement model was overidentified with 210 distinct sample moments and 46 parameters to be estimated with 164 degrees of freedom (210-46). The model comprises 49 variables: 20 observed and 29 unobserved variables. It constituted a total of 48 regression weights, 19 of which were freely estimated and 29 of which were fixed. It constituted two covariances and 25 variances, all of which were freely estimated. The model overall had 75 factors in total, of which 46 were freely estimated and 29 were fixed. The general goodness-of-fit indices for the measurement model revealed that the four-factor model fit the data well. The CFA results validated the theoretical underpinnings of the multidimensional nature of cultural intelligence, which is a combination of the four dimensions of behavioral CQ, cognitive CQ, motivational CQ, and metacognitive CQ (Earley & Ang, 2003).

4.3.3. Results of the Students' Level of National Identity, Social, and Cultural Intelligence

The students' levels of national identity, social intelligence, and cultural intelligence were measured. As discussed before, translated and validated measures of national identity and social and cultural intelligence scales were used. On the basis of the mean values of the previous studies on the constructs, comparisons of the mean values were made to determine the levels. The students exhibited remarkably high levels of national identity and cultural intelligence, as the observed mean scores substantially exceeded the expected mean values (see Table 13). However, the mean score for social intelligence was marginally lower than the anticipated mean value, indicating a significantly abstemious level of the construct.

Table 13.

Students' Level of National Identity, Social and Cultural Intelligence (n = 441)

Variables	No. of items	Min	Max	Mean	Expected Mean	SD	t value	Sig.	Skewness	Kurtosis
NI	13	22	65	51.28	43.42	9.40	13.34	***	-.830	-.064
SI	19	49	133	99.16	102.69	18.50	-2.79	**	-.385	-.570
CQ	20	48	140	101.49	88.64	18.90	10.45	***	-.360	-.377

Levels of significance are at .01 & * significance are at .000 (2-tailed); NI = national identity; SI = social intelligence; CQ = cultural intelligence; 5% Trimmed Mean of NI = 52.43, SI = 99.74, CQ = 102.48.

4.3.4. Results of the Correlation between National Identity and Social and Cultural Intelligence

The relationships between national identity and social and cultural intelligence were examined and are reported below. Table 14 presents the results of the Pearson correlation coefficients with the variables' means and standard deviations. A significant positive correlation was found among students' national identity, social intelligence, and cultural intelligence.

Students' social intelligence was positively correlated with their national identity ($r = .49, p < 0.01$), suggesting that students with higher social intelligence also had a stronger Ethiopian national identity. Similarly, students' cultural intelligence was positively correlated with their national identity ($r = .58, p < 0.01$), indicating that students with greater cultural intelligence had a more pronounced Ethiopian national identity. Furthermore, students' social intelligence was highly positively correlated with their cultural intelligence ($r = .72, p < 0.01$), meaning that more socially intelligent students were also more culturally intelligent.

Table 14.

Variable Means, Standard deviations, and Pearson Correlation Coefficients

Variable	Mean	SD	NI	SI	CQ
1. National Identity (NI)	51.28	9.40	1		
2. Social Intelligence (SI)	99.16	18.50	.49**	1	
3. Cultural Intelligence (CQ)	101.49	18.90	.58**	.72**	1

** The correlation is significant at the 0.01 level (2-tailed), N = 441.

No variable was negatively related to another variable. Concerning the strength of the relationships, medium and high correlations between variables were found. Except for the correlation between social intelligence and national identity, which was found at the highest edge of the medium level, the correlations between national identity and cultural intelligence and between social intelligence and cultural intelligence were found to be high. In this context, different authors suggest different interpretations. Cohen (1988, p. 79–81) suggested that a correlation is small ($r = .10$ to 0.29), medium ($r = .30$ to 0.49), or large ($r = .50$ to 1.0).

4.3.5. Results of Multiple Regression

Multiple regression was used to obtain answers to the following research questions: “How well do the independent variables, in general, predict NI? How do the two independent variables of interest (SI and CQ) independently predict NI? Which is the best predictor of NI among the independent variables? If we control for the possible confounding of demographic variables, is this set of variables still able to predict a significant amount of the variance in NI?”

Therefore, to determine the predictive power of all the independent variables and the key variables of interest to national identity, sequential multiple linear regression was used. The degree of prediction to the criterion variable made by the key predictor variables (SI & CQ) after controlling for sex, age, original area of residence, and family socioeconomic background was also assessed. Each independent variable’s contribution, by controlling one over the other, was also investigated. The variables’ relative contributions were independently assessed. Interpretations of the results are also given, according to the aforementioned research questions.

Before running the regression analysis and presenting its results, the assumptions of multiple regression were checked and reported below.

Sample size is one of the assumptions that need to be met to employ MR. The issue of sample size is usually related to generalizability. Small samples might not allow us to obtain repeatable and generalizable results with other samples and in different settings. Therefore, the question here is ‘How many cases or participants are needed for MR?’

Different authors provide different guidelines concerning the number of cases required for multiple regression. Stevens (1996) says, “For social science research, approximately 15 participants per predictor are needed for a reliable equation” (p. 72). Tabachnick and Fidell (2007) also gave a formula for calculating sample size requirements, taking into account the

number of independent variables that we have; $N > 50 + 8m$ (where m = number of independent variables). In both conditions, the present study satisfied the assumption of sample size, as it was conducted on a sample of 441 participants, which is far greater than those suggested by the authors.

Multicollinearity and *singularity* are also assumptions that should be checked and met before running MR. Multicollinearity is a condition where the IVs are highly correlated (most commonly $\geq .90$), singularity occurs when the IVs are perfectly correlated and one IV is a combination of one or more of the other IVs. In this study, the correlations between the IVs are given in Table 14. Therefore, these specific assumptions were not violated.

However, to investigate multicollinearity further, if it was not manifested in the correlation matrix, a collinearity diagnosis was carried out. Table 15 includes this information. In this table, tolerance and variance inflation factor (VIF) values are given. Tolerance is an indicator of how much of the variability of the specified independent variable is not explained by the other independent variables in the model (Fox, 1991). If this value is $< .1$, it indicates that the correlation of the particular variable with other variables is high, suggesting the likelihood of the presence of multicollinearity (Fox, 1991). The VIF, on the other hand, is just the inverse of the tolerance value (1 divided by tolerance). VIF values above 10 are usually a concern, indicates a serious collinearity problem (e.g., Menard, 2002; Pallant, 2020).

In this study, however, the tolerance value for each independent variable was not less than $.1$; thus, the multicollinearity assumption was not violated. This is also supported by the VIF values, which were quite below the cutoff point (i.e., 10). Hence, rigorous examination of the assumption of multicollinearity in the present research showed that the assumption was not violated.

Normality, linearity, homoscedasticity, no significant outliers, and the independence of residual assumptions were also checked. They all refer to different aspects of the distribution of scores and relationships between variables. One of the mechanisms of these assumptions can be inspected by examining the normal probability plot (P-P) or scatterplot or histogram of the regression standardized residual, which were obtained as part of the analysis in the MR. In the normal P-P plot, it is expected that the points will lie in a fairly straight diagonal line that runs from the bottom left to the top right. If this result is obtained, it would mean that there are no major deviating points from normality. In the scatterplot of the standardized residuals graph, it is usually expected that the residuals will be more or less rectangularly distributed, with the majority of the scores centered in the center, as the authors suggest. The data in the present study met these assumptions (see Appendix O, Figure O1, O2 & O3).

According to the scatterplot, few outliers were found in the present research. It is usually common to find many outlying residuals if the study is conducted on a large sample size. It may not be necessary to take action to remove them if there are a few. The Mahalanobis distances were further scrutinized. To identify which cases are outliers, however, and to determine the critical chi-square value, the number of IVs in the regression analysis is used because the degrees of freedom are important (Tabachnick & Fidell, 2007). In this research, there are two IVs; therefore, the critical value is 13.82. To determine whether any of the cases had a Mahalanobis distance value greater than 13.82, residual statistics were used and inspected (see Appendix O, Table O1). The maximum value in the data of the current study was 12.249, which did not exceed the cutoff value. Given the sample size of the study, as noted above, it was good not to have significant outliers found.

The casewise diagnostic statistics (see Appendix O, Table O2) present information about unusual or strange cases that have standardized residual values above 3.0 or below -3.0. In a normally distributed sample, only 1% of cases are expected to fall outside this range (Pallant, 2020). In this study, two cases were found in this range: ASTU093 and DDU160, with residual values of -3.295 and -3.099, respectively. The table shows that these cases (ASTU093 & DDU160) recorded 27 and 37 total NI scores, respectively. However, the model-predicted values were 52.05 and 60.62, respectively. The model did not predict those participants' scores very well—they had much less Ethiopian national identification than had been predicted.

To check whether these unusual cases have any unwarranted influence on the model as a whole, Cook's distance in the residual statistics was checked (see Appendix O, Table O1). Cases with values > 1 are assumed to be potential problems (Pallant, 2020). In this study, the maximum value for Cook's distance was .071, indicating that there were no major problems. Therefore, those cases identified as unusual were retained in the analysis. They were not discarded from the analysis, as they had no major effect.

To conclude, from the results found and presented, there were no major violations of the assumptions of MR. Consequently, it was found safe to see and evaluate the model, so the hierarchical and standard and multiple regression analyses are presented hereunder.

Results of Sequential Multiple Regression.

Sequential regression or hierarchical multiple regression was used to address the amount of variance in the independent variables in the prediction of the outcome variable. On the basis of the results of the assumption checking, the data met the assumptions of sufficient sample size, normality, singularity, linearity, homoscedasticity, no multicollinearity, significant outliers, and residual independence. The dependent variable was quantitative and was measured via an

interval scale. Upon examining the scatter plot, a positive linear relationship between the SI, CQ, and NI was found, indicating that there were no significant bivariate outliers, as shown above. The strong correlation observed between SI and CQ cannot be a concern of multicollinearity. The tolerance and variance inflation factor (VIF) values indicate that the correlation is healthy. In this study, the tolerance value for the SI was .474, and for the CQ, it was .477, both of which exceed .1. The VIF values for SI and CQ were found to be 2.111 and 2.098, respectively. Hence, multicollinearity did not pose a concern impacting the overall predictive fit.

The model that included demographic variables, social intelligence (SI), and cultural intelligence (CQ) to predict national identity (NI) was assessed. This evaluation examined the ability of the key variables to predict national identity while controlling for potential confounding factors such as sex, age, original area of residence, and family SoE background.

In a hierarchical MR, variables are introduced in predetermined steps or blocks. In the first block, sex, age, original area of residence, and family socioeconomic background were included in the analysis, allowing for the statistical control of these variables. In the second step, SI was entered as an independent block, enabling an assessment of whether this variable could account for a significant portion of the variance in predicting NI. In the third block, CQ was also entered as an independent block, allowing for the evaluation of its ability to explain any remaining variance in the dependent variable (national identity) after accounting for the effects of the earlier variables. Essentially, the influence of sex, age, original area of residence, and family socioeconomic background was removed to focus on the predictive power of SI and CQ. The results of this analysis are presented below.

Table 15.
Regression Statistics from Sequential Analysis

Variables	R^2			Sig. F change				Tolerance	VIF
	R^2	Change	F		β	t	Sig.		
Model 1	.024	.024	1.903	.093					
Sex					-.104	-2.021	.044	.927	1.079
Age					.096	1.845	.066	.912	1.096
Residence: Urban					-.037	-.689	.491	.875	1.143
SoE background: High					.103	1.555	.121	.568	1.761
SoE background: Medium					.111	1.681	.094	.566	1.768
Model 2	.256	.233	22.623	***					
Sex					-.062	-1.363	.174	.920	1.087
Age					.115	2.517	.012	.911	1.097
Residence: Urban					-.045	-.967	.334	.875	1.143
SoE background: High					.050	.872	.348	.564	1.773
SoE background: Medium					.087	1.509	.132	.565	1.770
Social Intelligence (SI)					.487	11.103	***	.979	1.021
Model 3	.352	.096	30.496	***					
Sex					-.058	-1.363	.174	.920	1.087
Age					.090	2.110	*	.906	1.104
Residence: Urban					-.028	-.641	.522	.872	1.146
SoE background: High					.028	.521	.603	.562	1.778
SoE background: Medium					.063	1.167	.244	.563	1.776
Social Intelligence (SI)					.164	2.785	**	.474	2.111
Cultural Intelligence (CQ					.448	7.620	***	.477	2.098

Note. Dependent variable: National identity. *prediction is significant at .05. **prediction is significant at .01. ***prediction is significant at .000 (2-tailed). SoE = socioeconomic; VIF = variance inflation factor.

Table 15 provides a comprehensive overview of the three models analyzed in this study. Model 1 establishes the foundational framework by incorporating key demographic variables, including sex, age, original area of residence, and socio-economic status (SoE). Building upon this initial framework, Model 2 introduces an additional dimension by integrating social intelligence (SI), thereby encompassing all variables from both blocks—specifically, sex, age, original area of residence, SoE background, and SI. Model 3 further expands this framework by incorporating cultural intelligence (CQ), thus integrating all variables from the previous models, namely, sex, age, original area of residence, SoE background, SI, and CQ.

The R^2 values associated with these models offer insights into the extent to which each configuration explains the variance in national identity (NI). For example, Model 1 accounts for only 2.4% of the variance in NI, as indicated by an R^2 value of .024. However, with the inclusion of social intelligence in Model 2, the explained variance significantly increased to 25.6%. This noteworthy enhancement underscores the importance of SI and illustrates a substantial contribution beyond the variance explained by the initial demographic variables—namely, sex, age, original area of residence, and SoE background. Furthermore, the change in R^2 value provides insight into the percentage of variance in the dependent variable, national identity, that can be specifically attributed to the independent variables, particularly social intelligence (SI). After accounting for demographic factors, SI was found to account for 23.3% of the variance in national identity, highlighting its statistically significant impact ($p < .001$). This finding suggests that SI plays a pivotal role in shaping national identity beyond mere demographic influences.

The analysis then advanced to Model 3, which included all relevant variables of interest, resulting in an explained variance of 35.2%. Within this model, cultural intelligence (CQ) emerged as a key factor, contributing an additional 9.6% increase in the coefficient of

determination (R^2) after controlling for previously examined variables, including sex, age, original area of residence, SoE background, and SI. This substantial increase was statistically significant, indicating a meaningful difference at a high level of confidence ($p < .001$).

To delve deeper into how each variable influenced the final prediction, the study examined the independent variables using the comprehensive results from Model 3. For that, the standardized coefficients of the *beta* values were evaluated. This means that the values of each of the variables were standardized (i.e., converted to the same scale) so that comparison was possible. The analysis highlighted those three variables—age, social intelligence, and cultural intelligence—significantly contributed to the prediction of national identity ($p < .05$). Cultural intelligence stood out with the highest unique contribution ($\beta = .448, t = 7.620, p < .001$), showing a strong influence. While social intelligence had the second highest unique contribution ($\beta = .164, t = 2.785, p < .01$), age had the least significant contribution ($\beta = .090, t = 2.110, p < .05$) to the prediction of national identity. This means that CQ made the strongest unique contribution to explaining national identity when the variance explained by the other variable in the model was controlled for. However, both SI and CQ were found to make statistically significant contributions to the prediction of national identity, indicating that there was no overlap with each other in the model. The remaining variables in the equation did not yield significant contributions.

Another important insight derived from the standardized beta coefficients in the regression analysis is their role in indicating the relative consequence of each independent variable on the dependent variable. Specifically, standardized beta values reveal how many standard deviations the dependent variable is expected to change for each one standard deviation increase in an independent variable, assuming all other variables are held constant.

In this analysis, the standardized beta coefficient for Social Intelligence (SI) was found to be .164. This means that for every one standard deviation increase in SI—equivalent to an 18.50-point rise—National Identity (NI) is expected to increase by .164 standard deviations. Given that the standard deviation of NI is 9.40, this translates to an actual change of 1.545 units in NI (i.e., $.164 \times 9.40 = 1.545$). In other words, when a participant's SI score increases by 18.50 points, their NI score is predicted to increase by approximately 1.545 points, provided that other variables remain constant.

Similarly, the standardized beta value for Cultural Intelligence (CQ) was calculated as .448, indicating a stronger relationship with NI than SI. This means that a one standard deviation increase in CQ—which corresponds to an 18.90-point rise—is associated with a .448 standard deviation increase in NI. Again, using the NI standard deviation of 9.40, this results in an estimated increase of 4.211 points in NI ($.448 \times 9.40 = 4.211$). Thus, for every 18.90-point increase in CQ, the NI score is expected to increase by around 4.211 points, assuming all other influencing factors are held constant.

It is important to note that these interpretations are valid only under the assumption that all other variables in the model are statistically controlled or held constant. This allows for a clearer understanding of the isolated impact of each predictor variable (SI and CQ) on the outcome variable (NI).

In summary, the overall model demonstrated a high level of statistical significance, as evidenced by an F-value of 58.071 with 7 and 393 degrees of freedom $F(7, 393) = 58.071, p < .001$, indicating that it effectively accounts for a substantial portion of the variance within the data. However, it is crucial to underline that while demographic variables provide essential contextual background, they did not significantly contribute to predicting national identity, as

shown by an F-value of 1.903 with 5 and 395 degrees of freedom $F(5, 395) = 1.903, p > .05$), indicating a failure to reach statistical significance.

Results of Standard Multiple Regression.

To determine the independent contribution of SI and CQ, a standard multiple regression was used. In this case, these variables were entered into the model simultaneously. The results indicated how this set of variables predicted NI and how much unique variance each variable explained in NI. Although the contributions of these variables were already examined through the sequential regression analysis described earlier, this particular analysis was conducted to see if significant differences in model performance could arise due to the chosen statistical method.

Table 16.

Regression Statistics from Standard Multiple Regression

variables	R		Beta			
	R	Square	F		t	Sig.
Social Intelligence (SI)	.583 ^a	.340	113.045	.154	2.763	**
Cultural Intelligence (CQ)				.462	8.278	***

Note. Dependent variable: National identity; * $p < .05$, ** $p < .01$ & *** $p < .001$ (2-tailed).

Table 16 presents a summary of the regression model of the standard MR. The results show that social and cultural intelligence contribute to national identity ($R^2 = .340, F = 113.045, p < .001$), explaining 34% of the variance. Both predictor variables were found to be significant predictors of the outcome variable, resulting in social intelligence ($\beta = .154, t = 2.763, p < .01$) and cultural intelligence ($\beta = .462, t = 8.278, p < .001$). Compared with social intelligence, cultural intelligence had a greater contribution to national identity.

The values presented by the sequential and standard multiple regression methods are not very different. Using the former method, the model predicted 32.8%, and the latter method predicted 34% of the variance. Concerning the variables' contribution to the prediction of the outcome variable, CQ contributed 44.8% in the sequential method and 46.2% in the standard method. Social intelligence contributed 16.4% when the sequential method was used and 15.4% when the standard method was used.

Table 17.

Regression Statistics of Factors

Variables	Model 1			Model 2		
	<i>B</i>	<i>SE</i>	β	<i>B</i>	<i>SE</i>	β
Sex	-2.026	1.003	-.104*	-1.037	.815	-.053
Age	.715	.387	.096	.479	.310	.064
Residence: Urban	-.704	1.023	-.037	-.718	.816	-.037
SoE Background: High	3.460	2.225	.103	1.396	1.779	.041
SoE Background: Medium	2.676	1.592	.111	1.725	1.271	.072
Metacognitive				.416	.125	.188**
Cognitive				-.031	.060	-.024
Motivational				.553	.102	.331***
Behavioral				.152	.081	.102
SIP				.006	.072	.005
SSs				.125	.077	.095
SA				.036	.086	.025
R^2			.024			.352***
R^2 Change						.328***
F			1.903			30.496***

* $p < .05$, ** $p < .01$ & *** $p < .001$; B = unstandardized beta, SE = standard error, β = standardized beta; SoE = socioeconomic background, SIP = social information processing, SSs = social skills, SA = social awareness.

To identify which component among the factors of Social Intelligence (SI) and Cultural Intelligence (CQ) made the most substantial contribution to predicting national identity, an additional multiple regression analysis was performed. This analysis aimed to determine the relative predictive power of the individual dimensions within SI and CQ. The results revealed that the metacognitive and motivational dimensions made statistically significant contributions to the prediction of national identity. Specifically, the metacognitive component accounted for 18.8% of the variance in national identity scores, indicating a notable relationship between individuals' awareness and control over their cultural thought processes and their sense of national identity. Even more prominently, the motivational component explained 33.1% of the variance, suggesting that individuals' interest, drive, and confidence in functioning in culturally diverse settings are strongly linked to their identification with national identity. These results underscore the unique and substantial role these two dimensions play in shaping individuals' national identification.

CHAPTER FIVE

Discussion

The study examined the influence of social intelligence (SI) and cultural intelligence (CQ) on national identity (NI) within Ethiopian universities, specifically focusing on senior undergraduate students. This chapter presents the findings of the study and addresses the research questions introduced at the outset. It also includes a brief overview of the validation process conducted to ensure the reliability and accuracy of the data collected. Following this, the chapter provides a comprehensive discussion of the predictive results, highlighting the relationships among the variables and their implications for understanding national identity in the university context.

5.1. Instruments' Validations

To collect the data, adapted instruments that underwent rigorous validation procedures were employed. The validation process included assessments of item stability and patterns, factor structure, model fit, reliability, and the overall construct validity of the measures for NI, SI, and CQ. A pilot study was conducted to ensure that the instruments were appropriate for the target context—an essential step when using adapted tools. The results presented in Chapter Four are discussed below.

5.1.1. The Amharic Version of the Ethiopian National Identity Measure

One of the most widely used measures of collective identity, including national identity, is the Multigroup Ethnic Identity Measure (MEIM) developed by Phinney (1992). It has since undergone revisions and been tested across various settings (e.g., Roberts et al., 1999; Phinney & Ong, 2007; Yoon, 2011). While alternative measures like the Ethnic Identity Scale (EIS) by

Umaña-Taylor et al. (2004) have been proposed, their substantive differences from the MEIM are minimal (Cokley, 2007).

Originally designed to assess ethnic identity development in adolescents and young adults, the MEIM is suitable for individuals aged 12 and above. It has demonstrated strong reliability (typically $\alpha > .80$) across diverse populations. Roberts et al. (1999) identified two underlying factors through factor analysis: *exploration* (a developmental and cognitive component) and *commitment* (an affective and attitudinal component). The current 12-item version includes five items on exploration and seven on commitment, rated on a 5-point Likert scale.

For three basic reasons, the MEIM (Roberts et al., 1999) was preferred for the current study. The first is that most measures address specific ethnic or national groups, so they use group-specific instruments (e.g., Felix-Ortiz et al., 1994; Suinn et al., 1992). In contrast, the MEIM was designed in a way that would enable the assessment of collective identities across diverse ethnic and national groups. Content specific to particular groups, such as cultural values, beliefs, and norms, was not included (Phinney & Ong, 2007). The second important reason why MEIM was chosen for this study was because of its openness and flexibility. The developers of the measure underscored that, depending on the situation, their measure "can be complemented by additional measures" (Phinney & Ong, 2007, p. 28). Third, the instrument assesses the core components of social identity, which are assumed to be common across all ethnic groups of a nation, and more importantly, it is founded on the social identity theory of Tajfel and Turner (1986). For more details about the instrument and its adaptation, see Chapter Three, Section 3.8.1. & 3.9.

In the present study, the 15 items of the adapted NI measure were subjected to EFA to determine the pattern of the items and the stability of the factors in a new sample. The EFA results reaffirmed that national identity is a two-factor construct: exploration and commitment.

This result is consistent with those of previous studies on the construct (e.g., Gaines et al., 2013; Maehler et al., 2019; Musso et al., 2017; Phinney & Ong, 2007; Roberts et al., 1999; Schwartz et al., 2012). The items were not cross-loaded, and the majority of the correlations between items and factors were strong. When two poor items were removed, the quality of the measure improved.

Confirmatory factor analysis was also used to examine model fitness by combining the different types of fit indices. The results revealed that all the observed variables were significantly represented by their latent variables and that good model fit was attained. However, an overlap between items 1 and 4 of the exploration construct was found at the pilot stage. The items read "I have spent time trying to find out more about my Ethiopian nationality, such as its history, traditions, customs, etc." and "To learn more about my Ethiopian nationality background, I have often talked to other people about it." Two hypothetical explanations can be given for this: (a) it seems that these two items measure a similar notion of identity exploration, and (b) it might trigger questions regarding identity exploration by individuals themselves independently and by agents.

The results, in general, revealed that national identity is a two-factor construct and that the Amharic language version is a reliable and valid measure.

5.1.2. The Amharic Version of the Social Intelligence Measure

According to the review of the extant literature, there are limited options for instruments to examine social intelligence, but those few can generally be classified into three broad categories: methods based on achievement characteristics, methods based on evaluation by others, and methods based on self-evaluation. Two main problems are commonly associated with the first two methods: (a) they are time-consuming and difficult to administer, and (b) they are usually

not correlated with one another (Wong et al., 1995). Different explanations have been given for these inconsistencies in general, for example, low reliability among many nonverbal methods and disagreements among ratters for measuring the construct (Miller & Ross, 1975).

The Tromsø Social Intelligence Scale (TSIS) has been widely used as a self-report measure in recent social intelligence (SI) studies. In this study, the TSIS was adapted and validated to align with the research objectives. Exploratory Factor Analysis (EFA) confirmed the three-factor structure of SI—Social Information Processing (SIP), Social Skills (SSs), and Social Awareness (SA)—consistent with previous findings (e.g., Chater et al., 2023; Dorgan & Cetin, 2009; Frankovsky & Birkner, 2014; Kyoung et al., 2019). Items loaded cleanly onto their respective factors, with strong inter-item correlations, though two poorly performing items were removed to improve measurement quality.

Subsequently, CFA was conducted to assess model fit using multiple fit indices. Overlapping content was observed between certain items within the SIP, SSs, and SA factors (e.g., SIP1 & SIP5; SS1 & SS2; SA1 & SA2). To achieve an acceptable model fit, error terms between overlapping items within their respective factors were correlated.

The items that overlapped under the SIP are "I can predict other people's behavior" (SIP1) and "I can often understand what others are trying to accomplish without the need for them to say anything" (SIP5). The supposition that could be given as a hypothetical explanation for this overlap is that there seemed to be a similar interpretation of 'prediction' by the participants, regardless of the notion of prediction that the two items were assumed to measure distinctively. An overlap between items 4 and 5 was also found. Item 4 reads "I understand others' wishes" (SIP4). It seemed that the participants understood this item in a similar way to item five. Item five again was found to overlap with item seven, which was read as "I can often understand what

others mean through their expressions, body language, etc." (SIP7). However, cross-validation of these items in a different dataset would be important for future studies in this area.

In the SSs factor, the overlapping items include "I know how to exhibit respect for others in different social situations" (SS1) and "I am good at entering new situations and meeting people for the first time" (SS2). The hypothetical explanation for the overlap between these two items of the SS factor is that there seems to be the same understanding of showing respect for others and being in new situations, although the situations would be different. In the SA factor, the overlapping items read as "I am always mindful of my actions thinking seriously about others' reactions toward what I do" (SA1) and "I am not very surprised with the things people from a different or similar background" (SA2). The possible supposition for this overlap is that because people are very concerned about their behaviors and actions toward others, they would be less amazed by people's different actions that arise from differences in backgrounds. Afterwards, the CFA results revealed that all the observed variables were significantly represented by their latent variables, so a good model fit was obtained.

The overall results of the study, in general, revealed that the Tromso Social Intelligence Scale (TSIS) in the Amharic version was reliable and valid enough.

5.1.3. The Amharic Version of the Cultural Intelligence Measure

The test of validation of the 20-item CQS revealed a four-factor structure similar to that of the original CQS, which included cognitive CQ, behavioral CQ, motivational CQ, and metacognitive CQ. The four-factor structure was replicated across multinational samples (e.g., Shannon & Begley, 2008; Shokef & Erez, 2008; Ward et al., 2009) and multiple countries, including India (Jyoti & Kour, 2015), Korea (Moon, 2010a), the Philippines (Presbitero, 2016),

Turkey (Sahin et al., 2013), and Saudi Arabia (Al-Dossary, 2016). Across studies, the CQS has shown good internal consistency reliability.

All the items were found to have high loading values for their respective factors. There were no cross-loadings either. The results of the CFA also revealed that the four CQ factors demonstrated acceptable model fit. However, in the cognitive CQ factor, item 1 (Cog1) was found to overlap with item 4 (Cog4). Item 3 (Cog3) was slightly confounded with item 2 (Cog2) and item 4. The items read "I know the legal and economic systems of the cultures in the northern, southern, eastern, western and central parts of Ethiopia" (Cog1) and "I know the favorite food and the feeding rules associated with the Amhara, Somali, Hadya, Tigray and Guragie cultures in Ethiopia" (Cog4). The possible hypothetical explanation for this overlap could be attributed to the convergence between places and cultures. It seems that if the participants understood the legal and economic systems of the cultures in the northern, southern, eastern, western, and central parts of Ethiopia, they would probably know the favorite food and the feeding rules in these areas. This is because the ethnic groups mentioned in item four reside in the northern, southern, and eastern parts of Ethiopia.

Item 3 of the cognitive CQ dimension, "I know the cultural values, norms and religious beliefs of cultures in Ethiopia such as the Afar, Somali, Siltie, etc." (Cog3), was confounded with item 2, "I know some vocabulary (e.g., greeting words) and rules of communication of languages in Ethiopia such as Guragigna, Oromifa, Tigregna, and so on", with item 4 stated above. The probable explanation for the overlap between these items could be attributed to the possible relationships among the participants and the cultural values, norms, religious beliefs, and vocabularies of others.

In the behavioral CQ dimension, items 2 (Bhrl2) and 5 (Bhrl5) were found to overlap with each other. They read as "I use facial expressions and vocals differently to suit different cross-cultural situations" and "I alter my facial expressions when a cross-cultural interaction requires it", respectively. The tentative hypothetical explanation for these items' overlap could be that the items measured the notion of facial expressions and vocals similarly.

In the motivational CQ dimension, item 2 was found to overlap with items 3, 4, and 5. That is, item 2, "I am confident that I can socialize with the locals in a culture that is new to me", was confounded with item 3, "I am curious to learn more and to know better about cultures that are new to me"; item 4, "I enjoy living in cultures that are unfamiliar to me and can adjust myself to deal with the stress associated with it"; and item 5, "I am confident that I can get accustomed to the living systems (e.g., shopping conditions) of other cultures in Ethiopia." The possible tentative description for the overlap between this single item (i.e., item 2) and these three items (i.e., items 3, 4 & 5) could be because it constituted a measure of self-assurance related to motivation to adapt to new cultures, although all the items were supposed to measure distinctive attributes of self-assurance motives.

To conclude, all the items that showed overlap need to be exposed for cross-validation studies in a different dataset to come to a reliable and plausible conclusion. Future studies need to consider this topic.

5.1.4. Measurement Equivalence of the Amharic and English Language Versions of the National Identity Measure

To determine the more robust measure from the two language versions and subsequently choose the better one for the study purposes, a test of measurement invariance or equivalence was conducted on the NI measure during the piloting. Below, the results are discussed.

Measurement invariance (MI) can be tested via CFA. To test measurement invariance, four basic steps were described by Widaman and Reise (1997). They are configural, weak factorial (metric), strong (Scalar), and strict (residual or invariant uniqueness). Diane and Marc (2016) also summarized the four measurement invariance steps considered as (1) configural or equivalence of model form; (2) metric or weak factorial or equivalence of factor loadings; (3) scalar or strong factorial or equivalence of item intercepts or thresholds; and (4) residual or strict or invariant uniqueness or equivalence of item residuals.

Configural invariance is a test of whether the constructs have the same pattern of free and fixed loadings across groups. If configural invariance is not met, it can be concluded that the assessment tool does not measure the same construct across groups.

Metric invariance is considered satisfied when all item factor loadings are equal between groups. Metric invariance means that each item contributes to the latent factor to an analogous degree across groups. To make a meaningful comparison of predictive associations between groups, metric equivalence is needed.

The third step is scalar invariance, which is satisfied when every item in each group exhibits the same point of origin (i.e., intercept) across the groups; this level of equivalence is necessary for comparing group means (Chen, 2008). When scalar invariance is met, all the mean differences in the shared variance of the items are captured by the mean differences in the latent factor.

The final step in the MI test is residual invariance, which means that the error variances across groups are similar. According to Diane and Putnick (2016), residual invariance means that the sum of specific variance (variance of the item that is not shared with the factor) and error variance (measurement error) is similar across groups. They further noted that "...there could be

more measurement error and less specific variance in one group than another, and residual invariance could still be supported if the totals of these two components were similar" (p. 6). Although testing residual invariance is important for full factorial invariance, according to Vandenberg and Lance (2000), it is not a prerequisite for testing mean differences because the residuals are not part of the latent factor, so invariance of the item residuals is inconsequential to the interpretation of latent mean differences.

Consequently, the present study conducted five series of analyses to reach a conclusion regarding MI between the Amharic and English language versions of the NI measure. First, data screening and assumptions checking for the multivariate levels of statistical analyses in each group of the dataset were carried out. A few outlying cases were found. However, they were not excluded from the multivariate analyses because they were not problematic cases. Hence, normality, linearity and homoscedasticity, singularity, multicollinearity, and multivariate outliers were checked. Second, by employing descriptive statistics, scores of the key variables and demographic information were analyzed and presented descriptively via percentages and means. Third, correlational analysis was employed to obtain an overview of poor items and subsequently determine the degree of relationship between items and factors. Pearson correlation coefficients were employed for this purpose. Fourth, the relationships between the observed factors and latent variables were assessed. The factor structure in each group was examined. By employing a test of first-order CFA, the observed indicators (items) for each variable with its metric value were identified. Fifth, multigroup CFA was conducted to test the four levels of MI described above.

The difference indices used to determine model fit in Chapter Four were similarly used to evaluate the model goodness of fit of the MI investigation. Consequently, each measurement model's quality was assessed via the following well-recognized standards: $RMSEA \leq .08$, $SRMR$

$\leq .10$, and $CFI \geq .90$ for adequate model fit and values of $RMSEA \leq .05$, $SRMR \leq .08$, and $CFI \geq .95$ for excellent model fit (Browne & Cudeck, 1993; Collier, 2020).

In addition, a relative chi-square test (χ^2/df) < 3 is taken as an indicator of good model fit. The Akaike information criterion (AIC; Akaike, 1987) was used to compare the quality of competing baseline models; a smaller number indicates a more ideal model. As measures of invariance, the use of other alternative fit indices (e.g., $\Delta RMSEA$, $\Delta SRMR$: Meade et al., 2008; CFI: Cheung & Rensvold, 2002) was applied. According to these authors, a change in $RMSEA$ (i.e., $\Delta RMSEA$), with a change $\leq -.015$, indicates invariance between MI levels (Meade et al., 2008). Change in CFI (i.e., ΔCFI), where invariance is encountered on the basis of a change in $CFI \leq -.015$ (Cheung & Rensvold, 2002). That is, if there was no decrease in ΔCFI and $\Delta RMSEA$ between increasingly restrictive MI models of greater than .01 and .015, respectively, the assumption of MI was accepted at each level.

In the past, significant changes in the chi-square for two nested models were used as a criterion to assess MI (Byrne et al., 1989; Reise et al., 1993). According to Cheung and Rensvold (2002) and Meade et al. (2008), chi-square is excessively sensitive to small and nonsignificant deviations from a "precise" model, so researchers have shifted their emphasis from chi-square to alternative fit indices in the search for optimal model fit. This is why alternative fit indices were more frequently used in this study to determine model fit.

Consequently, the fit indices for testing the configural, metric, scalar, and residual invariance were found to be adequate to show invariance (see Chapter Four, Section 4.1.5). However, the partial invariance model fit the data better than the full residual model did. This partial invariance model is therefore used as a baseline model for the subsequent invariance tests.

The study showed that the assumptions for the MI of the Amharic and English language versions of the national identity measure were met. The presence of the two-factor model in both the Amharic and English versions (configural invariance), which is consistent with previous studies, showed that the instrument was conceptualized and understood by the two groups similarly, although it was presented in two different languages. The result that the factor loadings of the items were similar across the two groups (metric invariance) suggested that the predictive association may be meaningfully compared between groups because the measurement items can similarly be understood by the sample participants whether they are presented in Amharic or English.

Scalar invariance was attained in the current study, which means that the mean scores of the two groups could be eloquently compared and that the levels of the underlying items of the two versions were similar. The assumption that residual invariance was met in the study also means that group-to-group comparisons of raw observed scores can be meaningfully made without considering the uneven impact of measurement error. These results are consistent with those of previous studies that examined MI on the construct across groups with different adapted versions of languages (e.g., Fisher et al., 2020; Maehler et al., 2019; Mastrotheodoros et al., 2012).

5.2. The Levels of National Identity, Social Intelligence and Cultural Intelligence among Students in Ethiopian Public Universities

The study examined the students' levels of NI, SI, and CQ. As shown in the results section, computations of comparisons of the mean values based on the previous study results were performed to determine the levels of students on the constructs. The results revealed that the students presented remarkably high levels of NI and CQ. They were also found abstemiously at a significant level of the SI. Given the current state of ethnic salience in Ethiopia, students were

found to have strong NI. This could be a somewhat unforeseen result for those who say that Ethiopian national identity has become weak as of now. In the extant literature, there are no clear-cut study results regarding the convergence and divergence between ethnic and national identities. Some authors say that if ethnic attachment increases, national attachment should decrease (e.g., Robinson, 2009), although the two identities are not mutually exclusive. In multicultural states, the increased salience of national identity would produce a concurrent reduction in the relative salience of ethnic differences (e.g., Chandra, 2001; Laitin & Posner, 2001). They noted that decreasing ethnic salience may be one of the mechanisms of turning a citizenry into a nation. Consequently, correlates of ethnic salience should be negative predictors of national attachment.

Claiming that this notion of identity study is ideologically informed and politically embedded because it ignores the psycho-sociohistorical distinctiveness of national identity, social psychologists, on the other hand, argue that individuals can have multiple forms of identities, preferring the maintenance of an exclusive ethnic or national or both identities (Verkuyten & Martinovic, 2012). However, dual identity does not necessarily mean that national and ethnic identities are equally strong (Simon & Grabow, 2010; Simon & Ruhs, 2008). The degree of identification could lead to different degrees of loyalty to the group. Scholars have agreed upon views of identity as multiple, constantly renegotiated, and subjective relations with a national group (Brubaker & Cooper, 2000).

The students' SI was also found to be significantly moderate, but their CQ was high. Compared with other segments of the population, university students tend to have higher levels of SI (e.g., Alkhaldi & Alkhutaba, 2018; Bhat & Khandai, 2016; Omogbai & Jesuorobo, 2024; Uygun & Aribas, 2020) and CQ (e.g., Al-Jarrah, 2016; Senel, 2020; Sousa et al., 2023; Teneta-

Skwiercz, 2022). The reason may be that the university environment exposes students to different intercultural and social encounters by meeting students from different cultural backgrounds, which may help develop the capabilities of the two constructs. Ethiopian public university settings are diverse and include students from different ethnic and cultural groups across the country. This can be an opportunity and an asset for the development of the constructs.

In addition, the demanding and intensive nature of the academic environment for cognitive advancement and enlightenment would contribute to the development of the capabilities of social information processing, social skill, and social awareness, which are components of social intelligence (Silvera et al., 2001), and the cultural intelligence components of metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ (Earley & Ang, 2003). Considering the richness of culture and diversity of ethnic groups, the results of this study cannot be considered counterintuitive.

Social psychology researchers further argue that individuals' relationships in a group should not be considered an expression of identity; explaining group identification is sometimes different from explaining members' relationships (e.g., Huddy et al., 2021; Karasawa, 1991), as noted in the introduction section. They reported that national identity exists at two different poles: (a) it exists in the public sphere in the form of articulated and highly selective speech produced by several social agents and institutions (intellectual elites, media, state institutions, etc.), and (b) it is expressed through several socially shared lifestyles and feelings, which are sometimes not appropriately represented by public versions of identity (Wynter et al., 2001). Because national identity is not publicly spoken, it does not show its absence or weakness.

To the best of the present researcher's knowledge, studies on national identity from the social psychology perspective are rare in Ethiopia. A closer investigation to the present study is that of

Keller's and Omwami's (2007) investigation about the perceptions of national identity, citizenship, government service delivery, equity, and popular participation of Ethiopians in the regional states of Oromia, Southern Nations and Nationalities and People's (SNNP), Tigray, Amhara, Benishangul-Gumuz, and Addis Ababa. The results generally did not reveal contradictions between participants' ethnic identities and their Ethiopian national identities.

With respect to Ethiopian nationality and unity, the participants supported the idea that Ethiopian nationality and unity were more important than self-determination. The present study revealed that Ethiopian national identity among public university students was high. Given the complex nature of conflicts, the Ethiopian national identity was not found to be weak.

5.3. Relationships among National Identity, Social Intelligence and Cultural Intelligence among Ethiopian Public University Students

The study also assessed the relationships among NI, SI, and CQ. There was a significant positive correlation among students' NI, SI, and CQ. This means that students with stronger Ethiopian national identities had greater SI. Similarly, students with higher CQ had a more pronounced Ethiopian national identity. Students' SI was also highly positively correlated with their CQ, and hence, students who were more socially intelligent were also more culturally intelligent.

Studies examining the direct associations among NI, SI, and CQ are hardly existed in the literature. However, investigations conducted on various subtypes of social identities and SI have shown similar positive correlations between the constructs (Falahi et al., 2020; Haslam et al., 2022). This can be attributed to the fact that people with greater SI can better understand others' perspectives and can synchronize with their own feelings, beliefs, and attitudes. This can foster a more inclusive, cohesive, tolerant, and accepting national identity, as the members involved can

relate to and appreciate the ideas, practices, and experiences of diverse members of that nation. This, correspondingly, has empirical support, as strong national identity was found to facilitate people's adaptation to their environment because it meets a series of motives or identity functions (Simon, 2004; Vignoles et al., 2006).

Students with the capacity to understand others and behave (or act) accordingly can have healthy relationships with their fellow citizens, which contributes to having a strong national identity. They will be adept at forming new relationships, expanding their networks, maintaining existing ones, and effectively resolving interpersonal conflicts. These abilities significantly influence their exploration of shared values and the commonalities that emerge. These capabilities considerably positively influence the national identity level of individuals, contributing to exploring and determining the values embedded and the commonalities that surfaced and maintaining collective identities in a diversified nation such as Ethiopia.

Self-definition within a specific social group is explored through social identity theory, which establishes a link between an individual's cognitive and perceptual processes and the behaviors of social groups. Motivational and emotional factors are significant contributors to this dynamic (Tajfel & Turner, 1979). The affective and cognitive processes individuals engage in regarding their social environment are crucial in shaping and sustaining the identities of social groups.

Similarly, the triarchic theory of intelligence seeks to elucidate the concept of intelligence in relation to an individual's internal and external worlds (Sternberg, 1988). This theory comprises three subtheories, each relating to a specific facet of intelligence. The componential subtheory corresponds to analytical intelligence, which encompasses the ability to solve problems; the contextual subtheory pertains to practical intelligence, referring to the capacity to effectively

navigate one's environment; and the experiential subtheory relates to creative intelligence, or the ability to address novel situations and challenges (Sternberg, 1985, 1988). According to Sternberg, intelligent thought is not arbitrary or random; rather, it is purposefully directed toward behavioral goals that are significant to the individual's life, including adaptation to the environment and the selection and shaping of that environment (Gross, 1996).

The strong positive relationship between NI and CQ revealed in the present study also has theoretical, conceptual, and empirical support. For example, social identity theory indicates that an attempt to share others' values and thoughts gives rise to "we-ness" on the basis of "the shared attributes around which group members coalesce" (Cerulo, 1997, p. 386). Cultural intelligence assumes these important elements for strong identification, as discussed before. Developing the three facets of intelligence enhances an individual's ability to engage effectively in group interactions and to sustain group identity.

Studies conducted on heterogeneous and culturally diverse nations have also shown that culturally diverse states and nations have higher levels of nationalism than more homogeneous states do (Robinson, 2009). This seems counterintuitive to the general belief regarding national identity, as the more homogeneous a population is, the easier it is to build a stronger nation. The tentative justification for higher levels of nationalism in heterogeneous nations could be attributed to a significant number of members having higher CQ so that there would be a greater degree of cohesiveness and identification. As there is a positive correlation between CQ and cross-cultural adjustments (Subramaniam et al., 2011), people in multicultural states can have higher CQ, which is vital to building identity with a nation.

The strong correlation between social intelligence (SI) and cultural intelligence (CQ) can be attributed to their intrinsic relationship as interconnected constructs of intelligence. Numerous

studies have illuminated this significant link, such as the research conducted by SuB and Beauducel (2005) and Crowne (2009), which underscore the common underlying elements that enable individuals to effectively comprehend and navigate various social contexts. These studies reveal how both forms of intelligence contribute to our ability to interact harmoniously within diverse environments. However, it is crucial to acknowledge that, despite their interrelationship, SI and CQ are distinct constructs that offer unique insights into human behavior and social dynamics (e.g., Crowne, 2009). Afterwards, Kutner et al. (2005) noted “The fact that some or all predictor variables are correlated among themselves does not, in general, inhibit our ability to obtain a good fit nor does it tend to affect inferences about mean responses or predictions of new observations” (p. 289).

5.4. Contributions of Social and Cultural Intelligence in Predicting National Identity

This study examined the predictive power and contributions of social intelligence (SI) and cultural intelligence (CQ) to Ethiopian national identity (NI) among university students. The findings revealed that both SI and CQ are statistically significant predictors of NI. Specifically, students who demonstrated higher levels of social and cultural intelligence were more likely to express a stronger sense of identification with the Ethiopian national identity. These results are consistent with previous studies in related domains, particularly those exploring social identity and self-efficacy in culturally diverse contexts, which have shown similar linear relationships among such variables. For instance, Espinosa et al. (2013, as cited in Espinosa et al., 2016) found that greater national identification is associated with increased acceptance of others, stronger interpersonal confidence, and a heightened sense of contribution to society.

Social identity, as a construct, fosters psychological connectedness among members of the same group. Therefore, individuals' ability to navigate social relationships effectively (SI) and

adapt successfully across different cultural environments (CQ) can serve as strong indicators of their national identity development. Haslam et al. (2022) note that social identity provides a shared sense of meaning, belonging, efficacy, and emotional support. In this context, both social intelligence and cultural intelligence help cultivate and reinforce these attributes. They can effectively harness these qualities. A deeper understanding of both one's own culture and the diverse cultures present within a nation contributes to the development of a coherent and inclusive sense of national identity.

Furthermore, a student's curiosity and intrinsic motivation to engage with and learn about other cultures in a pluralistic society like Ethiopia can enhance inclusive national identification. Such attitudes promote appreciation, mutual respect, and recognition among members of different cultural groups. These experiences help reinforce a collective national identity that honors diversity while emphasizing shared values and goals. As such, students with high social intelligence and cultural intelligence are better positioned to discover common ground across different cultural backgrounds, respect existing differences, and actively contribute to the cohesion of a diverse national community.

Although demographic variables, when examined independently, did not significantly predict national identity, the overall model—including the key independent variables—was found to be a significant predictor of national identity. A closer look at the individual contributions of each variable revealed that cultural intelligence (CQ) made the strongest unique contribution to the model, followed by social intelligence (SI). Age also emerged as a statistically significant, albeit smaller, predictor. These results suggest that variability in age is associated with differing degrees of national identification. Supporting this finding, Windari (2021) reported that age contributes meaningfully to an individual's attachment to their national identity.

Additionally, the study tested whether the predictive strength of SI and CQ remained consistent after controlling for demographic variables. The results confirmed that both SI and CQ continued to significantly predict national identity even after accounting for demographic influences. To the best of the researcher's knowledge, few—if any—studies have investigated this specific relationship within the Ethiopian context. However, Keller and Omwami (2007) conducted a relevant investigation and found no overall contradiction between participants' demographic characteristics and their Ethiopian national identity. Nonetheless, they reported differences in magnitude based on certain demographic indicators. In particular, region of residence was identified as a critical factor influencing national identity variability. For example, when regional residence was included in the regression model, only participants from Amhara showed a statistically significant increase in national pride compared to the reference group from Tigray.

CHAPTER SIX

Summary, Conclusion, and Recommendations

In this chapter, summaries of the main results of the study, conclusions, recommendations for future researchers, and recommendations for relevant stakeholders are provided. The summaries, conclusions, and recommendations presented here are based on the results and overall findings from the two phases of the study.

6.1. Summary

The general objective of this study was to examine social intelligence (SI) and cultural intelligence (CQ) as predictors of national identity (NI) among public university students of Ethiopia, particularly senior undergraduate students. The students' levels of NI, SI, and CQ, the relationships among them, and the abilities of the SI and CQ constructs to predict NI were assessed.

Before the variables were examined, a better language version of the English and Amharic instruments was chosen in terms of measuring the constructs in the target population. Specifically, the NI measure (i.e., the dependent variable) was subjected to a test of MI. Hence, an examination of the MI (configural, metric, scalar & residual) of the English and Amharic language versions of the MEIM was conducted. After establishing a baseline model of the scale via CFA, the four levels of MI were assessed, applying more stringent and increasingly restrictive multigroup confirmatory factor analyses. Chi-square differences and alternative fit indices were used to determine model fit.

In the configural invariance testing of arrangement across groups, the parameters were freely estimated in each group, resulting in a good general model ($CFI = .965$, $RMSEA = .041$ & $SRMR = .047$). For the metric invariance test, ΔCFI , $\Delta RMSEA$, and $\Delta SRMR$ were found to be

.001, -.002, and .006, respectively. The values indicated that the improvement in model fit was not significant with the imposition of the equality constraints. For the scalar test, the values of ΔCFI , ΔCFI , $\Delta RMSEA$, and $\Delta SRMR$ were found to be -.002, -.001, and -.007, indicating scalar invariance. The partial invariance model, where the residual variance for 'Exploration items 1 & 4' were freely estimated across the groups, yielded $\Delta CFI = .003$, $\Delta RMSEA = -.002$, and $\Delta SRMR = 0$.

Although invariance between the two language versions was found, the Amharic version was found to be a more robust measure. For example, the variance explained by the observed variables (R^2) for the Amharic version ranged from .415 (exploration item 13) to .766 (exploration item 1). This means that the explained variance ranged from 41.5% to 76.6%. For the English version, the variance ranged from .362 (exploration item 9) to .571 (commitment 11). Comparatively, the Amharic version of the items explained more of the variance than did the English version.

Concerning model fit indices values, the model for both language versions yielded values of good model fit indices (Amharic: $\chi^2 = 140.250$; $p < .05$, CFI = .966; IFI = .966; TLI = .956; RMSEA = .062; and .048) and (English: $\chi^2 = 140.942$; $p < .05$, CFI = .945; IFI = .945; TLI = .933; RMSEA = .055; and .051). The Amharic language version yielded better model fit indices.

The study also examined the factor structure, model fit, reliability, and validity of the NI, SI and CQ measures. The results of the EFA revealed that the NI has a two-factor structure: commitment and exploration. The SI reveals that the measure has a three-factor structure: SIP, SSs, and SA. CQ has a four-factor structure: metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ. The rotated solution showed that all the items substantially loaded on their respective factors. There were no poor-loading items. There were no cross-loadings either.

The results of the CFA revealed that all the observed variables were significantly represented by their latent variables and that good model fit was attained. Excellent internal consistency reliability was also observed, for example, for commitment ($\alpha = .933$) and exploration ($\alpha = .931$). The AVEs were also .64 and .70, indicating convergent validity. The square roots of the AVE were .80 and .83, confirming the discriminant validity of the measurement model. Similar results were found for the remaining constructs (i.e., $\geq .90$).

The study examined the levels of NI, SI, and CQ in the students. On the basis of the mean values of the previous studies on the constructs, comparisons of the mean values were performed to determine the levels. Students exhibited a strong level of NI and a remarkably high level of CQ and were moderately socially intelligent. It was also revealed that there is a significant positive correlation among students' NI, SI, and CQ. Students' SI was positively correlated with their national identity ($r = .49, p < .01$) and with CQ ($r = .72, p < .01$). Similarly, students' CQ was positively correlated with their national identity ($r = .58, p < .01$).

Moreover, the study examined the predictive ability of the SI and CQ constructs for the NI. The results show that SI and CQ contribute to the prediction of NI ($R^2 = .340, F = 113.045, p < .001$), explaining 34% of the variance. Both independent variables were found to be significant predictors of the outcome variable, resulting in social intelligence ($\beta = .154, t = 2.763, p < .01$) and cultural intelligence ($\beta = .462, t = 8.278, p < .001$). Compared with SI (15.4%), CQ (46.2%) had a stronger effect on the prediction of NI.

6.2. Conclusion

The results of this study provide important insights into the relationships among NI, SI, and CQ among public students in Ethiopia. On the basis of the results in general and the summaries presented above in particular, the following conclusions are drawn.

The study provides a reliable and valid measure of the constructs by revealing that those imported tools undergo rigorous adaptation, translation, and validation processes. To identify the more robust measure from the two language versions and subsequently choose the better one for the study purposes, a test of measurement invariance or equivalence was conducted on the NI measure during the piloting. The measurement of the NI was chosen for this particular test because it was the dependent variable in the study, along with other qualitative factors.

The assumptions for the MI of the English and Amharic language versions of the MEIM were met. The presence of the two-factor model in both the English and the Amharic versions (configural invariance), which is consistent with previous studies, showed that the instrument was conceptualized and understood by the two groups similarly, although it was presented in two different languages. The result that the factor loadings of the items were similar across the two groups (metric invariance) suggested that the predictive association may be meaningfully compared between groups because the MEIM items can similarly be understood by the sample participants whether they are presented in English or Amharic.

Scalar invariance was attained in the current study, which means that the mean scores of the two groups could be eloquently compared and that the levels of the underlying items of the two versions were similar. The assumption that residual invariance was met in the study also means that group-to-group comparisons of raw observed scores can be meaningfully made without considering the uneven impact of measurement error.

These results of the current study are consistent with those of previous studies that examined MI on the construct across groups with different adapted versions of languages. The results showed that the NI measure in the English and Amharic language versions was measurement invariant. However, exceeding values of indices and regression weights revealed that the

Amharic language version is a more rigorous measure than English is. The researcher believes that a similar result would be obtained if the same test of MI could be performed for the SI and CQ constructs because of the language barrier, as mentioned in the results section (see Chapter Four, Section 4.2 for more detail).

As part of the validation task, the study assessed the factor structure, model fitness, reliability, and validity of the measures before the key objectives were examined. The EFA results revealed the presence of two factors of the NI construct, three factors of SI, and four factors of CQ. Two poorly functioning items in each of the NI and SI measures were excluded from the respective measures.

These two items in the NI measure read as "I participate in organizations or social groups that include most members of my Ethiopian fellows without considering their specific ethnicity, religion, gender, etc." and "I think a lot about how my life will be affected by my Ethiopian national group membership." In the SI measure, the two items were "I often feel uncertain if what I am doing is right around new people" and "Other people become angry with me without explaining to me why." This means that these items were not found to fit the context of Ethiopia, particularly for public university students.

Therefore, valid and reliable measures of the NI, SI, and CQ constructs in the Amharic language version for undergraduate students at Ethiopian public universities have been obtained.

The study measured the students' levels of NI, SI, and CQ. The students presented remarkably high levels of NI and CQ. However, they were found at significantly abstemious levels in the SI construct. The high level of NI found by the study indicated that the students had a strong sense of identification with and connection to their Ethiopian national identity. They

were also found to have high levels of CQ, indicating that students could adapt and effectively function in culturally diverse environments or settings.

These samples presented a significantly moderate SI. This means that they possess more than adequate social information processing, social skills, and social awareness that help them navigate their environment and successfully interact with others. The study also revealed a significant positive correlation between NI, SI, and CQ. These findings indicate that these constructs are closely related and therefore reinforce each other.

Moreover, SI was found to be positively correlated with NI, indicating that students with higher SI also had a stronger Ethiopian national identity. Similarly, CQ was positively correlated with NI, indicating that students with higher CQ had a more pronounced Ethiopian national identity. Furthermore, SI was highly positively correlated with CQ, meaning that more socially intelligent students were also more culturally intelligent.

The results indicate that students with high levels of SI and CQ are more likely to identify with an Ethiopian national identity. From the study's general results, it is possible to conclude that, by helping students develop SI and CQ, it is possible to enhance students' national identity. This study highlights the importance of SI and CQ as key factors that help strengthen national identity. However, CQ emerged as a stronger predictor than SI in influencing NI. This highlights that students' ability to adapt and thrive in culturally diverse settings is a noticeable factor in developing a strong national identity.

To this end, this study introduces a new contextualized and tailored framework specifically for students in Ethiopian public university settings. The study demonstrated how NI can be affected by SI and CQ among students in a specified context. It is assumed that the framework can be used by future researchers as bedrock for further investigations. This study provides vital

insights into the multifaceted constructs of NI, SI, and CQ. This research will encourage researchers to further investigate this topic, aiming at upholding togetherness and peaceful coexistence in general and fostering a favorable learning environment for students' effectiveness in particular.

6.3. Recommendations

Ethiopia is a country with a diverse population in terms of ethnicity, culture, and religion. The interplay of human-to-human interactions is considered essential for the existence of a larger community. University students' societal and cultural values, in this regard, cannot be seen as different from those of the general society. The plan to conduct this study on public university students, who were from different backgrounds, would be, in general, important bedrock for the investigation of the construct and its relationship with other variables in the future. Consequently, the following practical recommendations for the key stakeholders that are assumed relevant and research recommendations for future researchers are given:

6.3.1. Practical Recommendations

Interventions in the Curriculum.

This study reveals the importance of SI and CQ for NI. Hence, the incorporation of the elemental aspects of the constructs in the curriculum of higher education for a targeted behavioral outcome appears to be important. This could involve developing and implementing courses that address these issues, conducting regular workshops, and putting in place strict extracurricular activities that would center on helping students develop social skills, social awareness, intercultural understanding, communication, and adaptability. The Ministry of

Education of Ethiopia and public universities are responsible entities for implementing this recommendation.

Interregional Placement and Intercultural Exchange Opportunities

The well-known contact hypothesis suggests that direct contact and interaction between members of different social and cultural groups lead to better intergroup relationships, minimizing prejudice, stereotypes, hatred, and other perceived negative attitudes. Therefore, the placement of students at universities outside of their localities or regions gives them exposure to intercultural experiences and the opportunity to learn about others. Social and cultural encounters can help them develop the ability to appreciate diversity, which in turn can help strengthen their sense of national identity. In addition, it is important to create experience-sharing and intercultural exchange opportunities for students at universities. In addition to the Ministry of Education of Ethiopia and public universities, other concerned ministerial offices such as Culture and Sport, Youth and Social Affairs, and nongovernmental organizations that work with youth development can be responsible entities for the implementation of this recommendation.

Faculty Development Centers and Programs.

Setting up social and cultural centers and implementing faculty programs to help develop SI and CQ by universities is recommended as an important task that needs to be practiced. This can be taken as an auxiliary to the curriculum intervention. Unlike conventional cultural centers that are filled with cultural physical materials, this particular center needs to be equipped with educators and program experts with knowledge of pedagogical strategies to effectively plan and implement SI and CQ development programs. The Ministry of Education of Ethiopia stated that higher education institutions continue to be the center of diversity in terms of students' religion, language, and ethnicity (MoE, 2011). Hence, public universities, mainly the Ministry of

Education, and nongovernmental organizations can be key actors in accomplishing this recommendation.

Positive Youth Development Policy.

This study could be used as a reference for policymakers and for those entities who work in positive youth development programs. The study, for example, presents insights into young students' levels of SI, CQ, and NI. This will provide a basic understanding of these entities and other key stakeholders about youth students' ability to get along with others and their ability to understand complex social relationships so that they can design strategies and/or approaches for the betterment of their future when they join the workforce.

Overall, the findings of the present study provide insights into the importance of SI and CQ as factors that contribute to the strengthening of NI among public university students in Ethiopia. The findings can inform relevant stakeholders aforementioned for interventions aimed at developing SI and CQ to foster a strong national identity among the student population.

6.3.2. Research Recommendations

Most recent works in Ethiopia have focused on the microlevel of ethnic identity. Such studies are useful for understanding social identities but cannot be taken as trouble-free when connected to national identity investigations. Therefore, considering the current state of ethnic salience in Ethiopia, other researchers should investigate the two identity constructs comparatively or by examining their consequences with other outcome variables. They could also examine how these constructs (SI, CQ & NI) may differ across various demographic variables and students' academic backgrounds or potential mediating factors that may shape these relationships. Furthermore, future researchers are encouraged to explore the attributes identified in the present study and the unique characteristics of Ethiopian culture through qualitative research.

In addition, comparative studies with other cultural contexts and longitudinal studies can be conducted on the problem. Cross-cultural comparative studies can reveal universal and context-specific factors influencing national identity formation. Longitudinal research is recommended because it enables to observe how social and cultural intelligence and national identity evolve over time, particularly in diverse settings.

6.3.3. Theoretical Recommendations

The study highlights how social and cultural intelligence contribute to Ethiopian national identity among public university students. Incorporating important theories, the following theoretical recommendations are put forth:

Integration with Social Identity Theory.

Social identity theory suggests that individuals derive and/or form part of their identity from the groups they are members of. Consequently, future studies ought to examine the ways in which how social and cultural intelligence strengthen the sense of belonging to a group. By examining and understanding how individuals navigate their social identity within a diversified environment, researchers can further assess the connection between individual intelligence and collective identity— particularly national identity.

Application of the Triarchic Theory of Intelligence.

A more refined understanding of how various forms of intelligence contribute to group identity can be gained by applying the Triarchic Theory of Intelligence, which encompasses analytical, creative, and practical facets of intelligence. Future research should look into how individuals' concepts of social identity— particularly national identity— are impacted by various types of intelligence, especially in complex and diversified sociocultural contexts. This approach

might show how the practical facet of intelligence, for example, helps navigate and understand social and cultural contexts and foster a cohesive national identity.

Integration of Social Cognitive Theory.

Understanding how social and cultural intelligence are built through interaction with peers and community members can be enhanced by utilizing the Social Cognitive Theory, which highlights the role of modeling, imitation, and observational learning in behavior and identity construction. Future studies should ponder how role models within educational settings influence students' social and cultural intelligence, and in turn, their national identity. Examining the impacts of different extracurricular activities that encourage social interaction and cultural knowledge, for example, maybe one way to do this.

Development of a Multidimensional Model.

The Triarchic Theory of Intelligence, Social Identity Theory, and Social Cognitive Theory can all be incorporated and developed into a multifaceted paradigm. This model can offer a comprehensive and exhaustive framework for comprehending the relationship between social and cultural intelligence and national identity across a range of demographic groups, considering both individual cognitive processes and collective social influences.

In conclusion, the aforementioned recommendations aim to provide a richer theoretical framework for examining and understanding the interplay between social and cultural intelligence and national identity, guided by the established theories in psychology. This study's results, in general, can be taken as an integral part of the knowledge domain of social identity, adding a body of literature to the field.

REFERENCES

- Abrams, D., & Hogg, A. (1990). An introduction to the social identity approach. In D. Abrams & M.A. Hogg (Eds.), *Social Identity Theory: Constructive and Critical Advances* (pp. 1-9). Harvester Wheatsheaf.
- Ackerman, P. L. (1987). Individual differences in skill learning: An integration of psychometric and information processing perspectives. *Psychological Bulletin*, 102(1), 3–27.
<https://doi.org/10.1037/0033-2909.102.1.3>
- Ackerman, P. L. (1996). A theory of adult intellectual development: Process, personality, interests, and knowledge. *Intelligence*, 22(2), 227–257. [https://doi.org/10.1016/S0160-2896\(96\)90016-1](https://doi.org/10.1016/S0160-2896(96)90016-1)
- Ackerman, P. L., & Humphreys, L. G. (1990). Individual differences theory in industrial and organizational psychology. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (Vol. 1, pp. 223–282). Consulting Psychologists Press.
- Adamu, A. Y. (2014). *Ethnic and religious diversity in higher education in Ethiopia: The case of Bahir Dar University*. Tampere University Press.
- Adamu, A. Y. (2023). Student ethnic diversity management in Ethiopian universities: practices, challenges, and way forward. *Higher Education*, 86(6), 1325-1340.
<https://doi.org/10.1007/s10734-022-00974-x>
- Akaike, H. (1987). *Factor analysis and AIC*. *Psychometrika*, 52(3), 317–332.
<https://doi.org/10.1007/BF02294359>
- Al-Dossary, S. A. (2016). Psychometric properties of the cultural intelligence scale in a Saudi Arabian context. *International Journal of Selection and Assessment*, 24(4), 305–311.

- Alkhaldi, H. S., & Alkhutaba, M. Y. (2018). Spiritual and Social Intelligence among University Students in the Light of Variables: A Comparative Study. *International Journal of Psychology and Behavioral Sciences*, 8(5), 81–95.
<https://doi.org/10.5923/j.ijpbs.20180805.02>
- Anderson, B. (2020). Imagined communities: Reflections on the origin and spread of nationalism. In *The new social theory reader* (pp. 282-288). Routledge.
- Ang, S., et al. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation and task performance. *Management and Organization Review*, 3(3), 335–371. <https://doi.org/10.1111/j.1740-8784.2007.00082.x>
- Ang, S., Van Dyne, L., Koh, C., & Ng, K. Y. (2004, August). The measurement of cultural intelligence. Paper presented at the *Academy of Management Meetings Symposium on Cultural Intelligence in the 21st century*, New Orleans, LA.
- Ashdown, B.A., Homa, N., & Brown, C.M. (2014). Measuring gender identity and religious identity with adapted versions of the Multigroup Ethnic Identity Measure– Revised. *Journal of Educational and Developmental Psychology*, 4(1), 226–241.
<https://doi.org/10.5539/JEDP.V4N1P226>
- Ashmore, R. D., Deaux, K., & McLaughlin-Volpe, T. (2004). An organizing framework for collective identity: articulation and significance of multidimensionality. *Psychological Bulletin*, 130(1), 80–114. <https://doi.org/10.1037/0033-2909.130.1.80>
- Assefa, H., Rupesinghe, K., & Tishkov, V. A. (1996). *Ethnicity and Power in the Contemporary World*. United Nations University Press.
- Bandura, A. (2002). Social cognitive theory in cultural context. *Applied Psychology: An International Review*, 51(2), 269–290. <https://doi.org/10.1111/1464-0597.00092>

- Barger, S. (2002). The Marlowe-Crowne affair: short forms, psychometric structure, and social desirability. *Journal of Personality Assessment*, 79(2), 286–305. [https://doi: 10.1207/S15327752JPA7902_11](https://doi.org/10.1207/S15327752JPA7902_11)
- Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory. In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace* (pp. 363–388). Jossey-Bass.
- Bateman, T. S., Griffin, R. W., & Rubinstein, D. (1987). Social information processing and group-induced shifts in responses to task design. *Group & Organization Studies*, 12(1), 88–108. <https://doi.org/10.1177/105960118701200107>
- Beamish, W., & Bryer, F. (2015) Social and emotional learning. In S, Garvis & D, Pendergast (Eds.), *Health and wellbeing in childhood*. Cambridge University Press.
- Bechhofer, F., & McCrone, D. (2009b). *National Identity, nationalism and constitutional change*. London: Palgrave Macmillan.
- Beshah, Z. (2020). *Ethnic-Based Conflicts in Ethiopia's Higher Education: The Case of Debre Berhan University* (Unpublished paper).
- Bellamy, R. (2008). *Citizenship: A very short introduction*. Oxford University Press.
- Bhat, Y. I., & Khandai, H. (2016). Social intelligence, study habits and academic achievements of college students of district Pulwama. *Research on Humanities and Social Sciences*, 6(7), 35–41. <https://doi.org/10.61778/ijmrast.v2i3.43>
- Billig, M. (1995). *Banal Nationalism*. Sage Publications.

- Boyatzis, R. E. (2009). Competencies as a behavioral approach to emotional intelligence. *Journal of Management Development*, 28(9), 749-770.
<https://doi.org/10.1108/02621710910987647>
- Boyatzis, R. E., Rochford, K., & Jack, A. I. (2014). Antagonistic neural networks underlying differentiated leadership roles. *Frontiers in Human Neuroscience*, 8(114), 1–15.
<https://doi.org/10.3389/fnhum.2014.00114>
- Boyle, G. J., & Saklofske, D. H. (2004). Editors' introduction: Contemporary perspectives on the psychology of individual differences. *The psychology of individual differences*, 1.
- Brewer, M. B. (2001). The Many Faces of Social Identity: Implications for Political Psychology. *International Society of Political Psychology*, 22(1), 115-125.
- Brief, A., & Weiss, M. (2002). Organizational behavior: Affect in the workplace. *Annual Review of Psychology*, 53(1), 279–307. <https://doi.org/10.1146/annurev.psych.53.100901.135156>
- Brislin, R., Worthlry, R., & Macnab, B. (2006). Cultural intelligence: Understanding behaviors that serve people's goals. *Group and Organizational Management*, 31(1), 40-55.
<https://doi.org/10.1177/1059601105275262>
- Brown, L. T., & Anthony, R. G. (1990). Continuing the search for social intelligence. *Personality and Individual Differences*, 11(5), 463–470.
[https://doi.org/10.1016/0191-8869\(90\)90059-Z](https://doi.org/10.1016/0191-8869(90)90059-Z)
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.). *Testing structural equation models* (pp. 136-162). Sage.
- Brubaker, R., & Cooper, F. (2000). Beyond “identity”. *Theory and Society*, 29(1), 1–47.
<https://doi.org/10.1023/A:1007068714468>
- Bryman, A., & Bell, E. (2003). *Business Research Methods*. Oxford University Press.

- Byrne, B. M., Shavelson, R. J., & Muthén, B. (1989). Testing for the equivalence of factor covariance and mean structures: the issue of partial measurement invariance. *Psychological Bulletin*, 105(3), 456–466. <https://doi.org/10.1037/0033-2909.105.3.456>
- Caligiuri, P. M. (2000). The Big Five Personality Characteristics as Predictors of Expatriates: Desire to terminate the assignment and supervisor-rated performance. *Personnel Psychology*, 53(1), 67–88. <https://doi.org/10.1111/j.1744-6570.2000.tb00194.x>
- Cameron, J. (2004). A three-factor model of social identity. *Self & Identity*, 3(3), 239–262. <https://doi.org/10.1080/13576500444000047>
- Caligiuri, P. M., Hyland, M. A., Joshi, A., & Bross, A. S. (1998). Testing a theoretical model for examining the relationship of family adjustment and expatriates' work adjustment. *Journal of Applied Psychology*, 83(4), 598–614. <https://doi.org/10.1037/0021-9010.83.4.598>
- Canney, C., & Byrne, A. (2006). Evaluating circle time as a support to social skills development: Reflections on a journey in school based-research. *British Journal of Special Education*, 33(1), 19–24. <https://doi.org/10.1111/j.1467-8578.2006.00407.x>
- Cannon, A., & Salas, E. (2001). Reflections on shared cognition. *Journal of Organizational Behavior*, 22(2), 195–202. <https://doi.org/10.1002/job.82>
- Carroll, J. B. (1993). *Human cognitive abilities: A survey of factor analytic studies*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511571312>
- Cattell, R. B. (1961). Theory of situational, instrument, second order, and refraction factors in personality structure research. *Psychological Bulletin*, 58(2), 160. <http://dx.doi.org/10.1037/h0045221>
- Cattell, R. B. (1987). *Intelligence: Its Structure growth and action*. North Holland.

- Ceci, S. J. (1996). *On intelligence: A bioecological treatise on intellectual development*. Harvard University Press.
- Cerulo, K. A. (1997). Identity construction: new issues, new directions. *Annual Review of Sociology*, 23(1), 385–409. <https://doi.org/10.1146/annurev.soc.23.1.385>
- Chandra, K. (2001). Cumulative Findings in the Study of Ethnic Politics. *APSA-CP*, 12(1), 7-11.
- Charles, H., & Trompenaars, F. (2006). Cultural intelligence: Is such a capacity credible? *Group and Organization Management*, 31(1), 56-63. <https://doi.org/10.1177/1059601105276942>
- Chater, W., Rebhi, M., Saidane, M., Guelmami, N., & Bouassida, A. (2023). Reliability and Validity of the Tromso Social Intelligence Scale (TSIS). *Advances in Physical Education*, 13(01), 53-65. <https://doi.org/10.4236/ape.2023.131006>
- Chen, F. F. (2008). What happens if we compare chopsticks with forks? The impact of making inappropriate comparisons in cross-cultural research. *Journal of Personality and Social Psychology*, 95(5), 1005–1018. <https://doi.org/10.1037/a0013193>
- Chen, G., Gully, S., Whiteman, J., & Kilcullen, B. (2000). Examination of relationships among trait-like individual differences, state-like individual differences, and learning performance. *Journal of Applied Psychology*, 85(6), 835–847. <https://doi.org/10.1037/0021-9010.85.6.835>.
- Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-to-fit indices for testing measurement invariance. *Structural Equation Modeling: A multidisciplinary Journal*, 9(2), 233–255. https://doi.org/10.1207/S15328007SEM0902_5
- Church, A. T. (1982) Sojourner Adjustment. *Psychological Bulletin*, 91(3), 540–572. <https://doi.org/10.1037/0033-2909.91.3.540>
- Citrin, J., & David, O. (2009). *Balancing national and ethnic identities: A guide for social scientists* (pp. 145–175). Cambridge University Press.

- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Cohen, L, Manio, L., & Morriso, K. (2005). *Research methods in education* (5th ed.). Taylor & Francis. <https://doi.org/10.4324/9780203224342>
- Cokley, K. (2007). Critical issues in the measurement of ethnic and racial identity: a referendum on the state of the field. *Journal of Counseling Psychology*, 54(3), 224-234.
<https://doi.org/10.1037/0022-0167.54.3.224>
- Collier, J. E. (2020). *Applied structural equation modeling using AMOS: Basic to advanced techniques*. Routledge.
- Costa, Jr., & McCrae, R. R. (2008). The revised NEO personality inventory (NEO-PI-R). In G. J. Boyle, G. Matthews & D. H. Saklofske (Eds.), *The SAGE handbook of personality theory and assessment, Vol. 2. Personality measurement and testing* (pp. 179–198). Sage Publications, Inc. <https://doi.org/10.4135/9781849200479.n9>
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Sage Publications.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Cristina, R., Juan, P., & Sara, A. (2016). Education-related factors in cultural intelligence development: A Colombian study. *Journal of Teaching in International Business*, 27(1), 41–58. <https://doi.org/10.1080/08975930.2016.1172541>
- Crowne, K. A. (2008). What leads to cultural intelligence? *Business Horizons*, 51(5), 391-399.
<https://doi.org/10.1016/j.bushor.2008.03.010>

- Crowne, K. A. (2009). The relationships among social intelligence, emotional intelligence and cultural intelligence. *Organization Management Journal*, 6(3), 148-163.
<https://doi.org/10.1057/omj.2009.20>
- CSA. (2008). Summary and statistical report of the 2007 population and housing census. *Addis Ababa, Ethiopia: Federal democratic republic of Ethiopia population census commission*, 1.
- Curran, P. J., West, S. G., & Finch, J. F. (1996). The robustness of test statistics to non-normality and specification error in confirmatory factor analysis. *Psychological Methods*, 1(1), 16-29.
- Cushner, K., & Brislin, R. W. (1996). *Intercultural Interactions: A Practical Guide*. Thousand.
- David, O., & Bar-Tal, D. (2009). A sociopsychological conception of collective identity: The case of national identity as an example. *Personality and Social Psychology Review*, 13(4), 354–379. <https://doi.org/10.1177/1088868309344412>
- Dessalegn, R., & Meheret, A. (2004). *Democratic assistance to postconflict Ethiopia: Impact and limitations* (FSS Monograph Series, No. 3). Forum for Social Studies.
- DeVellis, R. F. (2003). *Scale development: Theory and applications* (2nd ed.). Sage.
- Diane, L., & Putnick, M. (2016). Measurement invariance conventions and reporting: The state of the art and future directions for psychological research. *Developmental Review*, 41, 71–90.
<https://doi.org/10.1016/j.dr.2016.06.004>
- Dodge, K. A., & Pettit, G. S. (2003). A bio-psychosocial model of the development of chronic conduct problems in adolescence. *Developmental Psychology*, 39(2), 349-371.
<https://doi.org/10.1037/0012-1649.39.2.349>
- Dorgan, T., & Cetin, B. (2009). The Validity, Reliability and Factorial Structure of the Turkish Version of the Tromso Social Intelligence Scale. *Educational Sciences: Theory and Practice*, 9(2), 709–720.

- Durlak, J.A., Weissberg, R.P., Dymnicki, A.B., Taylor, R.D., & Schellinger, K.B. (2011). The Impact of Enhancing Students' Social and Emotional Learning: A Meta-Analysis of School-Based Universal Interventions. *Child Development*, 82(1), 405–432.
- Earley, P. C. (2002). Redefining interactions across cultures and organizations: Moving forward with cultural intelligence. *Research in Organizational Behavior*, 24, 271–299.
[https://doi.org/10.1016/S0191-3085\(02\)24008-3](https://doi.org/10.1016/S0191-3085(02)24008-3)
- Earley, P. C., & Ang, S. (2003). *Cultural intelligence: Individual interactions across cultures*. Stanford University Press.
- Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. In S. T. Fiske, D. L. Schacter & C. Zahn-Waxer (Eds.), *Annual Review of Psychology*, 53 (pp. 109–132). CA.
<https://doi.org/10.1146/annurev.psych.53.100901.135153>
- Eid, M., & Diener, E. (2001). Norms for experiencing emotions in different cultures: Inter- and intranational differences. *Journal of Personality and Social Psychology*, 81(5), 869–885. <https://doi.org/10.1037/0022-3514.81.5.869>
- Ekman, P. W. (1982). *Emotion in the Human Face* (2nd ed.). Cambridge University.
- Ellemers, N., Kortekaas, P., & Ouwerkerk, J. W. (1999). Self-categorization, commitment to the group and group self-esteem as related but distinct aspects of social identity. *European Journal of Social Psychology*, 29(2-3), 371–389. [https://doi.org/10.1002/\(SICI\)1099-0992\(199903/05\)29:2/3<371::AID-EJSP932>3.0.CO;2-U](https://doi.org/10.1002/(SICI)1099-0992(199903/05)29:2/3<371::AID-EJSP932>3.0.CO;2-U)
- Erikson, E. H. (1994). *Identity and the life cycle*. Norton & Company.
- Eshghi, P., Arofzad, S., & Hosaini, A. (2013). Relationship between social intelligence with effective influence among physical education expertise in Isfahan education organizations.

World Applied Sciences Journal, 28(12), 2177–2181.

<https://doi.org/10.5829/idosi.wasj.2013.28.12.734>

Espinosa, A., Schmitz, M., & Rottenbacher, J. (2016). Ideological bases of national identity and their influence on subjective, psychological and social well-being in Peru. *Network of Scientific Journals from Latin America, the Caribbean, Spain and Portugal*, 11(35), 18–32.

Falahi, Z., Sadeghi Afjeh, Z., & Kochak Entezar, R. (2020). The model of social trust based on social intelligence, social identity and social isolation based on the moderating role of gender and family economic status on senior high school students in Tehran. *Iranian journal of educational sociology*, 3(1), 106-118.

Federal Democratic Republic of Ethiopia (FDRE). (2009, September). *Higher education proclamation* (No. 650/2009). *Federal Negarit Gazeta*, 15(64), 4976–5044.

Felix-Ortiz, M., Newcomb, M., & Myers, H. (1994). A multidimensional measure of cultural identity for Latino and Latina adolescents. *Hispanic Journal of Behavioral Sciences*, 16(2), 99–116.

Fidell, S., Pearsons, K., Tabachnick, B., & Howe, R. (2000). Effects on sleep disturbance of changes in aircraft noise near three airports. *The Journal of the Acoustical Society of America*, 107(5), 2535–2547. <https://doi.org/10.1121/1.428641>

Finneran, N. (2003). The Persistence of memory: Nationalism, identity and the represented past. The Ethiopian experience in a global context. *Studies in Ethnicity and Nationalism*, 3(1), 21–37. <https://doi.org/10.1111/j.1754-9469.2003.tb00035.x>

Fisher, S., Zapolskib, T.B., Wheeler, L., Arora, P.G., Barnes-Najore, J. (2020). Multigroup Ethnic Identity Measurement invariance across adolescence and diverse ethnic groups. *Journal of Adolescence*, 83, 42–51. <https://doi.org/10.1016/j.adolescence.2020.07.006>

- Fiske, S., & Taylor, S. (2007). *Social Cognition: From Brains to Culture*. McGraw-Hill.
- Fisseha, Y. (2016). *Conceptualizations and impacts of multiculturalism in the Ethiopian education system*. University of Toronto.
- Fitch, K. (1998). *Speaking relationally: culture, communication and interpersonal connection*. Guildford Press.
- Flavell, J. H. (1979). Meta-cognition and cognitive monitoring: A new area of cognitive inquiry. *American Psychologist*, 34(10), 906–911. <https://doi.org/10.1037/0003-066X.34.10.906>
- Ford, M. E. (1994). A new conceptualization of social intelligence. In R. J. Sternberg (Ed.), *Encyclopedia of Human Intelligence* (pp. 974–978). NY: Macmillan Publishing Company.
- Ford, M. E., & Tisak, M. S. (1983). A further search for social intelligence. *Journal of Educational Psychology*, 75(2), 196–206. <https://doi.org/10.1037/0022-0663.75.2.196>
- Fox, J. (1991). *Regression Diagnostics*. Sage.
- Frankovsky, M., & Birknerová, Z. (2014). Measuring social intelligence-the MESI methodology. *Asian Social Science*, 10(6), 90-97. <https://doi.org/10.5539/ass.v10n6p90>
- Frankovsky, M., & Birkner, Z. (2014). Measuring Social Intelligence-The MESI Methodology. *Asian Social Science*, 10(6), 1911-2025.
- Frederiksen, N., Carlson, S., & Ward, W. C. (1984). The place of social intelligence in a taxonomy of cognitive abilities. *Intelligence*, 8(4), 315–337. [https://doi.org/10.1016/0160-2896\(84\)90015-1](https://doi.org/10.1016/0160-2896(84)90015-1)
- Gaines, S.O., Marelich, W., Bunce, D., Robertson, T., & Wright, B. (2013). Multigroup Ethnic Identity Measure (MEIM) expansion: measuring racial, religious, and national aspects of sense of ethnic identity within the United Kingdom. *Identity: An International Journal of Theory and Research*, 13 (4), 289–317. <https://doi.org/10.1080/15283488.2013.780973>

- Gardner, H. (1993). *Multiple intelligence: The theory in practice*. Basic Books.
- Gebrewold, B. (2009). Ethiopian nationalism: An ideology to transcend all odds. *Africa Spectrum*, 44(1), 79–97. <https://doi.org/10.1177/000203970904400106>
- Geleta, A., & Amsale, F. (2016). An assessment of educational leaders' multicultural competences in Ethiopian Public Universities. *European Scientific Journal*, 12(10), 387 – 402. <https://doi.org/10.19044/esj.2016.v12n10p387>
- Gellner, E. (1983). *Nations and nationalism*. Oxford.
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update* (4th ed.). Allyn & Bacon.
- Gorsuch, R. (1983). *Factor analysis* (2nd ed.). Lawrence Erlbaum Associates.
- Gravetter, F. J., & Wallnau, L. B. (2004). *Statistics for the behavioral sciences: A short course and student manual*. University Press of America.
- Grigorenko, E. L. (2000). Heritability and intelligence. In R. J. Sternberg (Ed.), *Handbook of Intelligence* (pp. 53–91). New York: Cambridge University Press.
<https://doi.org/10.1017/CBO9780511807947.005>
- Gross, R. (1996). *Psychology, the study of mind and behavior*. Hodder & Stoughton.
- Gudina, M. (2003). *Ethiopia: Competing ethnic nationalisms and the quest for democracy, 1960-2000*. Addis Ababa University Press.
- Guibernau, M. (2007). *The identity of nations*. Polity Press.
- Habib, S., Saleem, S., & Mahmood, Z. (2013). Development and validation of social intelligence scale for university students. *Pakistan Journal of Psychological Research*, 28(1), 65–83.
- Hair, J. F., Black, J. W.C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson Education Limited.

- Hair, J. F., Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.
- Hall, E. T. (1959). *The silent language*. Doubleday.
- Han, Z. (2010). On national identity, ethnic identity and cultural identity – An analysis and reflection based on historical philosophy. *Journal of Beijing Normal University (Social Science Edition)*, 1, 106–113.
- Hart, D., Richardson, C., & Wilkenfeld, B. (2011). Civic identity. In S. J. Schwartz, K. Luyckx, & V. L. Vignoles (Eds.), *Handbook of identity theory and research* (pp. 771–787). Springer.
https://doi.org/10.1007/978-1-4419-7988-9_32
- Haslam, S. A., Haslam, C., Cruwys, T., Jetten, J., Bentley, S. V., Fong, P., & Steffens, N. K. (2022). Social identity makes group-based social connection possible: Implications for loneliness and mental health. *Current opinion in psychology*, 43, 161–165.
<https://doi.org/10.1016/j.copsyc.2021.07.01>
- Haslam, S. A., Jetten, J., Postmes, T., & Haslam, C. (2009). Social identity, health and well-being: An emerging agenda for applied psychology. *Applied Psychology: An International Review* 58(1), 1-23. <https://doi.org/10.1111/j.1464-0597.2008.00379.x>
- Hedetoft, U., & Hjort, M. (2002). *The postnational self: Belonging and identity*. University of Minnesota Press.
- He, J. R., & Yan, J. R. (2008). Discussions from Ethnic Identity to National Identity. *Journal of the Central University for Nationalities: Philosophy and Social Sciences Edition*, 3, 5–12.
- Herrmann, R., Risse, T., & Brewer, M. (2004). *Transnational identities: Becoming European in the EU*. Rowman & Littlefield.

- Hogg, M. A., & Reid, S. A. (2006). Social identity, self-Categorization, and the communication of group norms. *Communication Theory* 16(1), 7–30. <https://doi.org/10.1111/j.1468-2885.2006.00003.x>
- Honeywill, R. (2016). *The man problem: destructive masculinity in Western culture*. Palgrave Macmillan.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1–55.
- Huddy, L., & Khatib, N. (2007). American patriotism, national identity, and political involvement. *American Journal of Political Science*, 51(1), 63–77. <https://doi.org/10.1111/j.1540-5907.2007.00237.x>
- Huddy, L., Ponte, A. D., & Davies, C. (2021). Nationalism, Patriotism, and Support for the European Union. *Political Psychology*, 42(6), 995–1017. <https://doi.org/10.1111/pops.12731>
- Hutchinson, J. (2019). Nations and nationalism: the first twenty-five years. *Journal of the Association for the Study of Ethnicity and Nationalism*, 25(1), 5–15. <https://doi.org/10.1111/nana.12489>
- Huynh, S. V. (2018) Social awareness and responsible decision making of students in grade 4 and 5 in Vietnam. *Journal of Education and Human Development*, 7(4), 7–15. <https://doi.org/10.15640/jehd.v7n4a2>
- Idrus, F. (2015). Examining classroom transformational spaces using the third space theory in developing students' sense of shared identity. *Theory and Practice in Language Studies*, 5(1), 28–37. <https://doi.org/10.17507/tpls.0501.04>

- Idrus, F. (2021). Exploring Cultural Intelligence Skills among International Postgraduate Students at a Higher Education Institution. *International Journal of Higher Education*, 10(4), 220–234. <https://doi.org/10.5430/ijhe.v10n4p220>
- Ilgen, D. R., & Klein, H. J. (1988). Individual motivation and performance: Cognitive influences on effort and choice. In J. P. Campbell, R. J. Campbell & Associates (Eds.), *Productivity in organizations* (pp. 143–176). Jossey-Bass.
- Imai, L., & Gelfand, M. (2010). The cultural intelligent negotiator: The impact of cultural intelligence (CQ) on negotiation sequences and outcomes. *Organizational Behavior and Human Decision Processes*, 112(2), 83–98. <https://doi.org/10.1016/j.obhdp.2010.02.001>
- Inzlicht, M., & Kang, S. K. (2010). Stereotype threat spillover: How coping with threats to social identity affects aggression, eating, decision making, and attention. *Journal of Personality and Social Psychology*, 99(3), 467–481. <https://doi.org/10.1037/a0018951>
- Ishiyama, J., & Basnet, P. (2022). Ethnic versus national identity in Ethiopia: Is ethnic identity growing and among whom? *African Security Review*, 31(1), 82–98. <https://doi.org/10.1080/10246029.2021.2009530>
- Jackson, J. W. (2002). Intergroup attitudes as a function of different dimensions of group identification and perceived intergroup conflict. *Self and Identity*, 1(1), 11–33. <https://doi.org/10.1080/152988602317232777>
- Jyoti, J., & Kour, S. (2015). Assessing the cultural intelligence and task performance equation: Mediating role of cultural adjustment. *Cross Cultural Management: An International Journal*, 22(2), 236–258. <https://doi.org/10.1108/CCM-04-2013-0072>

- Johnson, J., Lenartowicz, T., & Apud, S. (2006). Cross-cultural competence in international business: Toward a definition and a model. *Journal of International Business Studies*, 37, 525–543. <https://doi.org/10.1057/palgrave.jibs.8400205>
- Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and psychological measurement*, 20(1), 141-151. <http://dx.doi.org/10.1177/001316446002000116>
- Kanfer, R., & Heggstad, E. D. (1997). Motivational traits and skills: A person-centered approach to work motivation. *Research in Organizational Behavior*, 19, 1–56.
- Karasawa, M. (1991). Toward an assessment of social identity: The structure of group identification and its effects on in-group evaluations. *British Journal of Social Psychology*, 30, 293–307. <https://doi.org/10.1111/j.2044-8309.1991.tb00947.x>
- Keller, E. J., & Omwami, E. M. (2007). Federalism, citizenship and national identity in Ethiopia. *The International Journal of African Studies*, 6(1), 37–69.
- Kline, P. (1994). *An Easy Guide to Factor Analysis*. Routledge.
- Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.
- Kothari, C. R. (2004). *Research methodology: Methods and techniques* (2nd ed.). Wishwa Prakashan.
- Kraimer, M. L., Wayne, S. J., & Jaworski, R. A. (2001). Sources of support and expatriate performance: The mediating role of expatriate adjustment. *Personnel Psychology*, 54(1), 71–99. <https://doi.org/10.1111/j.1744-6570.2001.tb00086.x>
- Kriemeen, H., & Hajaia, S. (2017). Social Intelligence of Principals and Its Relationship with Creative Behavior. *World Journal of Education*, 7 (3) 84–91. doi.org/10.5430/wje.v7n3p84

- Kyoung, P. S., Ya Ki, Y., Eunju, S. (2019). Psychometric Properties of the Korean Version of the Tromsø Social Intelligence Scale. *The Korean Academy of Psychiatric and Mental Health Nursing*, 28(2), 165-171. <https://doi.org/10.12934/jkpmhn.2019.28.2.165>
- Kumar, K. (2003). *The Making of English National Identity*. Cambridge University Press.
- Kutner, M. H., Nachtsheim, C. J., Neter, J., & Li, W. (2005). *Applied linear statistical models*. McGraw-Hill.
- Lacanlale, E. P. (2013). Development and validation of a social intelligence inventory. *International Journal of Information and Education Technology*, 3(2), 263–267. <https://doi.org/10.7763/IJiet.2013.V3.277>
- Laitin, D., & Posner, D. (2001). The implications of constructivism for constructing ethnic fractionalization indices. *APSA-CP: Newsletter of the Organized Section in Comparative Politics of the American Political Science Association*, 12(1), 13–17.
- Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology*, 28(4), 563–575. <https://doi.org/10.1111/j.1744-6570.1975.tb01393.x>
- Levy, O., Beechler, S., Taylor, S., & Boyacigiller, N. A. (2007). What we talk about when we talk about ‘global mindset’: Managerial cognition in multinational corporations. *Journal of International Business Studies*, 38(2), 231–258. <https://doi.org/10.1057/palgrave.jibs.8400265>
- Liebman, J., et al. (2002). Cognitive and psychological correlates of adults’ eyewitness accuracy and suggestibility. *Personality and Individual Differences*, 33(1), 49–66. [https://doi.org/10.1016/S0191-8869\(01\)00135-0](https://doi.org/10.1016/S0191-8869(01)00135-0)

- Lubinski, D. (2000). Scientific and social significance of assessing individual differences: Sinking shafts at a few critical points. *Annual Review of Psychology*, 51, 405–444.
<https://doi.org/10.1146/annurev.psych.51.1.405>
- Lustig, M., & Koester, J. (1999). *Intercultural competence: Interpersonal communication across cultures* (3rd ed.). Addison Wesley Longman.
- Maehler, D. B., Zabal, A., & Hanke, K. (2019). Adults' Identity in Acculturation Settings: The Multigroup Ethnic & National Identity Measure (MENI). *Identity: An International Journal of Theory and Research*, 19(4), 245–257. <https://doi.org/10.1080/15283488.2019.164140>
- Marlowe, H. A. (1986). Social intelligence: Evidence for multidimensionality and construct independence. *Journal of Educational Psychology*, 78(1), 52–58.
<https://doi.org/10.1037/0022-0663.78.1.52>
- Mason, J. (2002). *Qualitative researching*. (2nd ed.). Sage.
- Mastrotheodoros, S., Dimitrova, R., Motti-Stefanidi, F., Abubakar, A., & Schoot, R. (2012). Measurement invariance of the Multigroup Ethnic Identity Measure (MEIM) across Bulgarian, Dutch and Greek samples. *European Journal of Developmental Psychology*, 9(4), 508–515. <https://doi.org/10.1080/17405629.2012.688099>
- Mayer, J., & Salovey, P. (1993). The intelligence of emotional intelligence. *Intelligence*, 17(4), 433–442. [https://doi.org/10.1016/0160-2896\(93\)90010-3](https://doi.org/10.1016/0160-2896(93)90010-3)
- Mayer, J., Caruso, D., & Salovey, P. (2000). Emotional intelligence meets traditional standards for an intelligence. *Intelligence*, 27(4), 267–298.
- McFatter, R. M. (1979). The use of structural equation models in interpreting regression equations including suppressor and enhancer variables. *Applied Psychological Measurement*, 3(1), 123–135. <https://doi.org/10.1177/014662167900300113>

- Meade, A. W., Johnson, E. C., & Braddy, P. W. (2008). Power and sensitivity of alternative fit indices in tests of measurement invariance. *Journal of Applied Psychology, 93*(3), 568–592. <https://doi.org/10.1037/0021-9010.93.3.568>
- Miguel, E. (2004). Tribe or nation? Nation-building and public goods in Kenya versus Tanzania. *World Politics, 56* (3), 327–362. <https://doi.org/10.1017/S0043887100004330>
- Miller, D., & Ross, M. (1975). Self-serving bias in attribution of causality: Fact or fiction? *Psychological Bulletin, 82*(2), 213–225. <https://doi.org/10.1037/h0076486>
- Miltenberger, R. G., Fuqua, W. R., & Woods, D. W. (1998). Applying behavior analysis to clinical problems: Review and analysis of habit reversal. *Journal of Applied Behavioral Analysis, 31*(3), 447–469. <https://doi.org/10.1901/jaba.1998.31-447>
- MoE. (2011). *Education Statistics: Annual Abstract*. Addis Ababa: Ministry of Education.
- Moon, T. (2010a). Emotional intelligence correlates of the four-factor model of cultural intelligence. *Journal of Managerial Psychology, 25*(8), 876–898.
- Mummendey, A., Kessler, T., Klink, A., & Mielke, R. (1999). Strategies to cope with negative social identity: Predictions by social identity theory and relative deprivation theory. *Journal of Personality and Social Psychology, 76*(2), 229–245.
- Murdock, G. P. (1987). *Outline of cultural materials* (5th rev. ed.). HRAF.
- Murphy, K. R. (1996). *Individual differences and behavior in organizations*. Jossey-Bass.
- Musso, P., Moscardino, U., & Inguglia, C. (2017). The Multigroup Ethnic Identity Measure–Revised (MEIM-R): Psychometric evaluation with adolescents from diverse ethnocultural groups in Italy, *European Journal of Developmental Psychology*. Taylor & Francis Group. <https://doi.org/10.1080/17405629.2016.1278363>

- Nelson, T. O. (1996). Consciousness and meta-cognition. *American Psychologist*, 51(2), 102–116. <https://doi.org/10.1037/0003-066X.51.2.102>
- Nigbur, D., & Cinnirella, M. (2007). National identification, type and specificity of comparison and their effects on descriptions of national character. *European Journal of Social Psychology*, 37(4), 672–691. <https://doi.org/10.1002/ejsp.382>
- Nunnally, J.C. (1978) *Psychometric theory* (2nd Ed.). McGraw-Hill.
- Omogbai, E. O., & Jesuorobo, W. O. (2024). Social Intelligence as a predictor of competencies among prospective counselors in public universities. *Academic Journal of Psychology and Counseling*, 5(2), 126–149. <https://doi.org/10.22515/ajpc.v5i2.8548>
- Pabian, S., & Vandebosch, H. (2014). Developmental trajectories of cyberbullying perpetration and social intelligence during early adolescence. *Journal of Early Adolescence*, 36(2), 145–170. <http://dx.doi.org/doi:10.1177/0272431614556891>.
- Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. Routledge.
- Phinney, J. S. (1990). Ethnic identity in adolescents and adults: Review of research. *Psychological Bulletin*, 108(3), 499–514. <https://doi.org/10.1037/0033-2909.108.3.499>
- Phinney, J. S. (1992). The multigroup ethnic identity measure: A new scale for use with diverse groups. *Journal of Adolescent Research*, 7(2), 156–176.
<https://doi.org/10.1177/074355489272003>
- Phinney, J. S., & Ong, A. (2007). Conceptualization and measurement of ethnic identity: current status and future directions. *Journal of Counseling Psychology*, 54(3), 271–281.
<https://doi.org/10.1037/0022-0167.54.3.271>
- Phinney, J. S., Berry, J. W., Vedder, P., & Liebkind, K. (2006). The acculturation experience:

- Attitudes, identities and behaviors of immigrant youth. In J. W. Berry, J. S. Phinney, D. L. Sam, & P. Vedder (Eds.), *Immigrant youth in cultural transition: Acculturation, identity, and adaptation across national contexts* (pp. 71–116). Lawrence Erlbaum Associates.
<https://doi.org/10.4324/9780415963619-4>
- Prasolova-Førland, E. (2004, November). Supporting social awareness among university students in 3D CVEs: Benefits and limitations. In Proceedings of the 2004 International Conference on Cyberworlds (pp. 127–134). IEEE. <https://doi.org/10.1109/CW.2004.59>
- Presbitero, A. (2016). Cultural intelligence (CQ) in virtual, cross-cultural intelligence: Generalizability of measure and links to personality dimensions and task performance. *International Journal of Intercultural Relations*, 50, 29–38.
<https://doi.org/10.1016/j.ijintrel.2015.11.001>
- Prinz, W. (1999). NESSIE: An awareness environment for cooperative settings. In S. Bødker, M. Kyng, & Schmidt, K. (Eds.), *ECSCW '99*. Springer. https://doi.org/10.1007/0-306-47316-X_21
- Ramalu, S. S., Rose, R. C., Kumar, N., & Uli, J. (2010). Doing business in global arena: An examination of the relationship between cultural intelligence and cross-cultural adjustment. *Asian Academy of Management Journal*, 15(1), 79–97.
- Reise, S. P., Widaman, K. F., & Pugh, R. H. (1993). Confirmatory factor analysis and item response theory: two approaches for exploring measurement invariance. *Psychological Bulletin*, 114(3), 552–566. <https://doi.org/10.1037/0033-2909.114.3.552>
- Riggio, R. E. (1986). Assessment of basic social skills. *Journal of Personality and Social Psychology*, 51(3), 649–660. <https://doi.org/10.1037/0022-3514.51.3.649>
- Roberts, R. E., Phinney, J. S., Masse, L. C., Chen, Y., Roberts, C. R., & Romero, A. (1999). The

structure of ethnic identity of young adolescents from diverse ethnocultural groups. *The Journal of Early Adolescence*, 19(3), 301-322.

<https://doi.org/10.1177/0272431699019003001>

Robinson, A. L. (2009). *National versus ethnic identity in Africa: State, group, and individual level correlates of national identification*. Afrobarometer Working Papers, 112.

Afrobarometer.

Rubin, A., & Babbie, E. (1997). *Research methods for social work* (3rd ed.). Brooks/Cole.

Ruzgis, P., & Grigorenko, E. L. (1994). Cultural meaning systems, intelligence, and personality.

In R. J. Sternberg and P. Ruzgis (eds). *Personality and intelligence*. Cambridge University Press.

Sahin, F., Gurbuz, S., Koksall, O., & Ercan O. (2013). Measuring cultural intelligence in the Turkish context. *International Journal of Selection and Assessment*, 21(2), 135–144.

<https://doi.org/10.1111/ijsa.12024>

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality*, 9(3), 185–211. <https://doi.org/10.2190/DUGG-P24E-52WK-6CDG>

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*, (4th ed.). England: Pearson Education Limited.

Scherer, K. R. (2007). Componential emotion theory can inform models of emotional competence. In G. Matthews, M. Zeidner & R. D. Roberts (Eds.), *The Science of Emotional Intelligence: Knowns and Unknowns*. (pp. 101–126). Oxford University Press.

Schmidt, F. L., & Hunter, J. E. (1998). The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings.

Psychological Bulletin, 124(2), 262–274. <https://doi.org/10.1037/0033-2909.124.2.262>

Schutte, N. S., et al. (1998). Development and validation of a measure of emotional intelligence.

Personality and Individual Differences, 25(2), 167–177. [https://doi.org/10.1016/S0191-8869\(98\)00001-4](https://doi.org/10.1016/S0191-8869(98)00001-4)

Schwartz, S. J., Park, I. J. K., Huynh, Q.-L., Zamboanga, B. L., Umaña-Taylor, A. J., Lee, R.,

Rodriguez, L. M., Kim, S. Y., Whitbourne, S. K., Castillo, L. G., Weisskirch, R. S.,

Vazsonyi, A. T., Williams, M. K., & Agocha, V. B. (2012). The American Identity Measure:

Development and validation across ethnic group and immigrant generation. *Identity: An*

International Journal of Theory and Research, 12(2), 93–128

<https://doi.org/10.1080/15283488.2012.668730>

Schwartz, S.J., Unger, J.B., Des Rosiers, S.E., Lorenzo-Blanco, E.I., Zamboanga, B.L., Huang,

S., Baezconde-Garbanati, L., Villamar, J.A., Soto, D.W., Pattarroyo, M., & Szapocznik, J.

(2014). Domains of acculturation and their effects on substance use and sexual behavior in

recent Hispanic immigrant adolescents. *Prevention Science*, 15 (3), 385–396.

<https://doi.org/10.1007/s11121-013-0419-1>

Sellers, R. M., Smith, M. A., Shelton, J., Rowley, S. A., & Chavous, T. M. (1998).

Multidimensional model of racial identity: A reconceptualization of African American racial

identity. *Personality and Social Psychology Review*, 2(1), 18–39.

https://doi.org/10.1207/s15327957pspr0201_2

Semela, T. (2012). Intergroup relations among the Ethiopian youth: Effects of ethnicity,

language, and religious background. *Journal of Developing Societies*, 28(3), 323–354.

<https://doi.org/10.1177/0169796X12453782>

- Senel, M. (2020). Investigation of the Cultural Intelligence Levels of the Turkish University Students at Foreign Language Departments. *International Journal of Language Education*, 4(3), 361–377. <https://doi.org/10.26858/ijole.v4i3.14806>
- Shannon, L. M., & Begley, T. M. (2008). Antecedents of four-factor model of cultural intelligence. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence* (pp. 41–55). M.E. Sharpe.
- Shetzer, L. (1993). A social information processing model of employee participation. *Organizational Science*, 4(2), 252–268. <https://doi.org/10.1287/orsc.4.2.252>
- Shokef, E., & Erez, M. (2008). Cultural intelligence and global identity in multicultural teams. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence* (pp. 177–191). M.E. Sharpe.
- Shrestha, N. (2021). Factor Analysis as a Tool for Survey Analysis. *American Journal of Applied Mathematics and Statistics*, 9(1), 4–11. <http://doi.org/10.12691/ajams-9-1-2>.
- Shulman, S. (2002). Challenging the civic/ethnic and west/east dichotomies in the study of nationalism. *Comparative Political Studies*, 35(5), 554–585. <https://doi.org/10.1177/0010414002035005003>
- Silvera, D., Martinussen, M., & Dahl, T. (2001). The Tromso Social Intelligence Scale, a self-report measure of social intelligence. *Scandinavian Journal of Psychology*, 42(4), 313–319. <http://dx.doi.org/10.1111/1467-9450.00242>
- Simon, B. (2004). Identity in a modern society: *A social psychological perspective*. Blackwell.
- Simon, B., & Grabow, O. (2010). The politicization of migrants: Further evidence that politicized collective identity is a dual identity. *Political Psychology*, 31(5), 717–738. <https://doi.org/10.1111/j.1467-9221.2010.00782.x>

- Simon, B., & Ruhs, D. (2008). Identity and politicization among Turkish migrants in Germany: the role of dual identification. *Journal of Personality and Social Psychology*, 95(6), 1354–1366. <https://doi.org/10.1037/a0012630>
- Singleton, R. A., & Straits, B. C. (2009). *Approaches to social research* (5th ed.). Oxford University Press.
- Small, A. D., & Verrochi, M. N. (2009). The face of need: Facial emotion expression on charity advertisements. *Journal of Marketing Research*, 46(6), 777–787. https://doi.org/10.1509/jmkr.46.6.777_JMR6F
- Smith, A. D. (1992). National identity and the idea of European unity. *International Affairs*, 68(1), 55–76.
- Smith, P. B., Giannini, M., Helkama, K., Maczynski, J., & Stumpf, S. (2005). Positive autostereotyping and self-construal as predictors of national identification. *International Review of Social Psychology*, 18(1), 65–90.
- Sousa, M., Fontão, E., Machado, I., Mendonça, J., Rodrigues, J., & Freitas, C. (2023). Assessing cultural intelligence and its antecedents in the Portuguese higher education context. *Education Sciences*, 13(6), 546. <https://doi.org/10.3390/educsci13060546>
- Sternberg, R. J. (1985). *Beyond IQ: A triarchic theory of human intelligence*. Cambridge University Press.
- Sternberg, R. J. (2003). A broad view of intelligence: The theory of successful intelligence. *Consulting Psychology Journal: Practice and Research*, 55(3), 139–154. <https://doi.org/10.1037/1061-4087.55.3.139>
- Sternberg, R. J. (1988). *The triarchic mind: A new theory of human intelligence*. Viking.
- Sternberg, R. J. (2004). *Handbook of intelligence*. Cambridge University Press.

- Sternberg, R. J. (2018). The triarchic theory of successful intelligence. In D. P. Flanagan & E. M. McDonough (Eds.), *Contemporary intellectual assessment: Theories, tests, and issues* (pp. 174–194). The Guilford Press.
- Sternberg, R. J., & Berg, C. A. (1986). Quantitative integration: Definitions of intelligence: A comparison of the 1921 and 1986 symposia. In R. J. Sternberg & D. K. Detterman (Eds.), *What is intelligence? Contemporary viewpoints on its nature and definition* (pp. 155–162). Ablex.
- Sternberg, R. J., & Detterman, D. K. (1986). *What is intelligence? Contemporary viewpoints on its nature and definition*. Ablex.
- Sternberg, R. J., Forsythe, G. B., Horvath, J., Hedlund, J., Snook, S., Williams, W. M., Wagner, R. K., & Grigorenko, E. L. (2000). *Practical intelligence in everyday life*. Cambridge University Press.
- Sternberg, R. J., & Wagner, R. K. (1989). Individual differences in practical knowledge and its acquisition. In P. L. Akerman, R. J. Sternberg & R. Glaser (Eds.), *Learning and individual differences: Advances in theory and research* (pp. 255–278). New York: Freeman.
- Stets, J. E., & Burke, P. J. (2000). Identity theory and social identity theory. *Social Psychology Quarterly*, 63(3), 224–237. <https://doi.org/10.2307/2695870>
- Stevens, J. P. (2009). *Applied multivariate statistics for the social sciences* (5th ed.). Routledge Taylor & Francis Group.
- Storm, E. (2022). The rise of the nation-state during the Age of Revolution: Revisiting the debate on the roots of nations and nationalism. *Journal of the Association for the Study of Ethnicity and Nationalism*, 28(4), 1137–1151. <https://doi.org/10.1111/nana.12857>
- SuB, H.-M., & Beauducel, A. (2005). Faceted models of intelligence. In O. Wilhelm & R. W.

- Engle (Eds.), *Handbook of understanding and measuring intelligence* (pp. 313–332). Sage Publications. <https://doi.org/10.4135/9781452233529.n18>
- Subramaniam, A., Ramalu, I., Wei, C. C., & Rose, R. C. (2011). The effects of cultural intelligence on cross-cultural adjustment and job performance amongst expatriates in Malaysia. *International Journal of Business and Social Science*, 2(9), 59–71.
- Suinn, R., Ahuna, C., & Khoo, G. (1992). The Suinn-Lew Asian self-identity acculturation scale: Concurrent and factorial validation. *Educational and Psychological Measurement*, 52(4), 1041–1046. <https://doi.org/10.1177/0013164492052004028>
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using Multivariate Statistics* (5th ed.). Allyn and Bacon.
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics*. Pearson.
- Tajfel, H., & Forgas, J. P. (2000). Social categorization: Cognitions, values and groups. In C. Stangor (Ed.), *Stereotypes and prejudice: Essential readings* (pp. 49–63). Psychology Press.
- Tajfel, H., & Turner, J. (1979). An integrative theory of intergroup conflict. In G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Brooks/Cole.
- Tajfel, H., & Turner, J. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. Austin (Eds.), *Psychology of intergroup relations* (pp. 7–24). Nelson-Hall.
- Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology*, 33, 1–39. <https://doi.org/10.1146/annurev.ps.33.020182.000245>
- Tajfel, H. (1981). *Human Groups and Social categories*. Cambridge University Press.
- Tajfel, H., & Fraser, C. (1978). *Introducing social psychology: An analysis of individual reaction and response*. Penguin Press.

- Takeuchi, R., Tesluk, P. E., Yun, S., & Lepak, D. P. (2005). An integrative view of international experiences. *Academy of Management Journal*, 48(1), 85–100.
<https://doi.org/10.5465/amj.2005.15993143>
- Tariques, I., & Takeuchi, R. (2008). Developing cultural intelligence: The roles of international network experiences. In S. Ang, & L. Van Dyne (Eds.), *Handbook of cultural intelligence: Theory, measurement, and applications* (pp. 56-70). M.E Sharpe.
- Taye, B. A. (2017). Ethnic federalism and conflict in Ethiopia. *African journal on conflict resolution*, 17(2), 41–66.
- Taylor, S. J. A. (1996). *Constructions of national identity and the nation: The case of New Zealand/Aotearoa* (Unpublished thesis). Open University, United Kingdom.
- Teferi, L. (2012). The post 1991 ‘inter-ethnic’ conflicts in Ethiopia: An investigation. *Journal of Law and Conflict Resolution*, 4(4), 62–69.
- Teneta-Skwiercz, D. (2022). Diagnosis of the level of cultural intelligence among students of economics universities in Poland. *e-mentor*, 2(94), 28–35.
<https://doi.org/10.15219/em94.1560>
- Theiss-Morse, E. (2009). Who counts as an American? *The Boundaries of National Identity*. Cambridge University Press.
- Thomas, D. C., & Inkson, K. (2003). *Cultural Intelligence: People skills for global business*. Berrett-Koehler.
- Tigner, R. B., & Tigner, S. S. (2000). Triarchic theories of intelligence: Aristotle and Sternberg. *History of Psychology*, 3(2), 168–176. <https://doi.org/10.1037/1093-4510.3.2.168>
- Ting, S. H., & Ting, S. L. (2020). Ethnic identity and other-group orientation of ethnic Chinese in Malaysia. *International Journal of Society, Culture & Language*, 8(2), 75–89.

- Ting-Toomey, S. (1999). *Communicating Across Cultures*. Guilford Press.
- Torsti, P. (2004). History culture and banal nationalism in post-war Bosnia. *Southeast European Politics*, 5(2-3), 142–157.
- Triandis, H. C. (1994). *Cultural and social behavior*. McGraw-Hill.
- Triandis, H. C. (2006). Cultural intelligence in organizations. *Group and Organization Management*, 31(1), 20–26. <https://doi.org/10.1177/1059601105275253>
- Turner, J. C., & Giles, H. (1981). Introduction: The social psychology of intergroup behaviour. *Intergroup behavior*, 1–32.
- Umana-Taylor, A. J., Yazedjian, A., & Bamaca-Gomez, M. (2004). Developing the ethnic identity scale using Eriksonian and social identity perspectives. *Identity: An International Journal of Theory and Research*, 4(1), 9–38. https://doi.org/10.1207/S1532706XID0401_2
- Uygun, K., & Aribas, B. B. (2020). Examining the relationship between social intelligence levels and communication skills of prospective social studies teachers. *Educational policy analysis and strategic research*, 15(1), 232–252. <https://doi.org/10.29329/epasr.2020.236.13>
- Vandenberg, R. J., & Lance, C. E. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices, and recommendations for organizational research. *Organizational Research Methods*, 3(1), 4–70. <https://doi.org/10.1177/109442810031002>
- Vaughan, S. (2003). *Ethnicity and Power in Ethiopia*. The University of Edinburgh.
- Vedder, P. (2005). Language, ethnic identity, and the adaptation of immigrant youth in the Netherlands. *Journal of Adolescent Research*, 20(3), 396–416. <https://doi.org/10.1177/0743558405274853>

- Verkuyten, M., & Martinovic, B. (2012). Immigrants' national identification: Meanings, determinants, and consequences. *Social Issues and Policy Review*, 6(1), 82–112.
<https://doi.org/10.1111/j.1751-2409.2011.01036.x>
- Vignoles, V., Regalia, C., Manzi, C., Golledge, J., & Scabini, E. (2006). Beyond self-esteem: Influence of multiple motives on identity construction. *Journal of Personality and Social Psychology*, 90(2), 308–333. <https://doi.org/10.1037/0022-3514.90.2.308>
- Wagner, R. K., & Sternberg, R. J. (1985). Practical intelligence in real-world pursuits: The role of tacit knowledge. *Journal of personality and social psychology*, 49(2), 436. 436–458.
<https://doi.org/10.1037/0022-3514.49.2.436>
- Ward, C., Fischer, R., Lam, F., & Hall, L. (2009). The convergent, discriminant, and incremental validity of scores on a self-report measure of cultural intelligence. *Educational and Psychological Measurement*, 69(1), 85–105. <https://doi.org/10.1177/0013164408322001>
- Ward C, Wilson J, & Fischer, R. (2011). Assessing the predictive validity of cultural intelligence over time. *Personality and Individual Differences*, 51(2), 138–142.
<https://doi.org/10.1016/j.paid.2011.03.032>
- Weis, S., & SuB, H. M. (2005). Social intelligence – A review and critical discussion of measurement concepts. In R. Schulze & R. D. Roberts (Eds.), *An International Handbook of Emotional Intelligence* (pp. 203–230). Gottingen: Hogrefe.
- Weis, S., & Suß, H. M. (2007). Reviving the search for social intelligence—A multitrait-multimethod study of its structure and construct validity. *Personality and individual differences*, 42(1), 3–14. <https://doi.org/10.1016/j.paid.2006.04.027>
- Westfall, P. H. (2014). Kurtosis as peakedness, 1905–2014. RIP. *The American Statistician*, 68(3), 191-195. <https://doi.org/10.1080/00031305.2014.917055>

- Westle, B. (2012). European identity as a contrast or an extension of national identity? On the meaning of European identity. In S. Salzborn, E. Davidov, & J. Reinecke (Eds.), *Methods, theories, and empirical applications in the social sciences* (pp. 249–254). VS Verlag für Sozialwissenschaften. https://doi.org/10.1007/978-3-531-18898-0_30
- Widaman, K. F., & Reise, S. P. (1997). Exploring the measurement invariance of psychological instruments: Applications in the substance use domain. In K. J. Bryant, M. Windle, & S. G. West (Eds.), *The science of prevention: Methodological advances from alcohol and substance abuse research* (pp. 281–324). American Psychological Association. <https://doi.org/10.1037/10222-009>
- Wiggins, J. S. (1974). Personality and prediction: Principles of personality assessment. *Educational and Psychological Measurement*, 34(1), 202–205. <https://doi.org/10.1177/001316447403400142>
- Wild, B., Erb, M., & Bartels, M. (2001). Are emotions contagious? Evoked emotions while viewing emotionally expressive faces: quality, quantity, time course and gender differences. *Psychiatry Research* 102(2), 109–124. [https://doi.org/10.1016/S0165-1781\(01\)00225-6](https://doi.org/10.1016/S0165-1781(01)00225-6)
- Windari, T. (2021). National identity attachment and its variables. *Journal of International Women's Studies*, 22(3), 81–95. <https://vc.bridgew.edu/jiws/vol22/iss3/9>
- Woods, E.T., & Debs, M. (2013). Towards a cultural sociology of nations and nationalism. *Nations and Nationalism*, 19(4), 607–614. <https://doi.org/10.1111/nana.12036>
- Wong, C.-M., Day, J. D., Maxwell, S. E., & Meara, N. M. (1995). A multitrait–multimethod study of academic and social intelligence in college students. *Journal of Educational Psychology*, 87(1), 117–133. <https://doi.org/10.1037/0022-0663.87.1.117>

- Wyer, R. S. (2004). *Social comprehension and judgment: The role of situation models, narratives and implicit theories*. Erlbaum. <https://doi.org/10.4324/9781410609007>
- Wyer, R. S., & Srull, T. K. (1980). The processing of social stimulus information: A conceptual integration. In R. Hastie, T.M. Ostrom, E.B. Ebbesen, R.S. Wyer, D. L. Hamilton and D. E. Carlston (Eds.), *Person Memory: The Cognitive Basis of Social Perception*. Erlbaum.
- Wynter, S., Duran-Cogan, M. F., & Gomez-Moriana, A. (2001). *National Identities and Sociopolitical Changes in Latin America*. Routledge
- Yamane, T. (1967). *Statistics: An Introductory Analysis*, (2nd Ed.). Harper and Row.
- Yoon, E. (2011). Measuring ethnic identity in the ethnic identity scale and the multigroup ethnic identity measure-revised. *Cultural Diversity and Ethnic Minority Psychology*, 17(2), 144–155. <https://doi.org/10.1037/a0023361>
- Yusuf, S. (2019). What is driving Ethiopia’s ethnic conflicts? *ISS East Africa Report*, 2019(28), 1–16. <https://hdl.handle.net/10520/EJC-1fda629dc3>
- Zautra, E. K., Zautra, A. J., Gallardo, C. E., & Velasco, L. (2015). Can we learn to treat one another better? A test of a social intelligence curriculum. *PLOS ONE*, 10(6), e0128638. <https://doi.org/10.1371/journal.pone.0128638>
- Zautra, A. J., Infurna, F. G., Zautra, E. K., Gallardo, C. E., & Velasco, L. (2016). The humanization of social relations: Nourishment for resilience. In A. D. Ong & C. E. Löckenhoff (Eds.), *Emotion, aging, and health* (pp. 207–227). American Psychological Association. <https://doi.org/10.1037/14857-011>
- Zheng, Y. N. (2004, August 16). China should build national identity. *Global Times* (pp. 8–16). <http://www.people.com.cn/GB/paper68/12730/1143827.html>

Ziemes, J. F., Hahn-Laudenberg, K., & Abs H. J. (2019). From connectedness and learning to European and national identity: results from fourteen European countries. *Journal of Social Science Education*, 18(3), 5–28. <http://doi.org/10.4119/jsse-1144>

APPENDICES

Appendix A Correlation Matrices

Table A1.

Correlation Matrix of the National Identity Measure With Poor Items

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Exp1	-														
2. Exp4	.84	-													
3. Exp5	.75	.75	-												
4. Exp6	.68	.69	.68	-											
5. Exp7	.68	.70	.63	.78	-										
6. Exp8	.62	.67	.72	.66	.66	-									
7. Com1	.43	.46	.47	.57	.54	.50	-								
8. Com2	.30	.36	.39	.40	.39	.39	.73	-							
9. Com3	.44	.46	.49	.56	.53	.48	.82	.73	-						
10. Com4	.35	.33	.41	.41	.39	.40	.66	.60	.62	-					
11. Com5	.36	.35	.42	.46	.41	.40	.74	.69	.68	.71	-				
12. Com6	.33	.37	.41	.45	.43	.42	.75	.81	.74	.61	.77	-			
13. Com7	.32	.35	.43	.43	.41	.42	.74	.68	.70	.57	.70	.83	-		
14. Exp2	-.06	-.03	-.02	-.01	-.09	-.05	.05	.11	.01	-.04	.05	.09	.11	-	
15. Exp3	-.08	-.10	-.03	-.01	.02	-.03	-.09	-.01	-.00	.02	-.02	.02	-.00	-.02	-

Note. Correlation is significant at the 0.05 level (2-tailed).

Table A2.

Correlation Matrix of the National Identity Measure after Poor Items are Discarded

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Exp1	-												
2. Exp4	.84	-											
3. Exp5	.75	.75	-										
4. Exp6	.68	.69	.68	-									
5. Exp7	.68	.70	.63	.78	-								
6. Exp8	.62	.67	.72	.66	.66	-							
7. Com1	.43	.46	.47	.57	.54	.50	-						
8. Com2	.30	.36	.39	.40	.39	.39	.73	-					
9. Com3	.44	.46	.49	.56	.53	.48	.82	.73	-				
10. Com4	.35	.33	.41	.41	.39	.40	.66	.60	.62	-			
11. Com5	.36	.35	.42	.46	.41	.40	.74	.69	.68	.71	-		
12. Com6	.33	.37	.41	.45	.43	.42	.75	.81	.74	.61	.77	-	
13. Com7	.32	.35	.43	.43	.41	.42	.74	.68	.70	.57	.70	.83	-

Note. Correlation is significant at the 0.05 level (2-tailed).

Table A3.*Correlation Matrix of the Social Intelligence Scale Before Poor Items are Discarded*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. SIP1	-																				
2. SIP2	.70**	-																			
3. SIP3	.80**	.71**	-																		
4. SIP4	.69**	.67**	.72**	-																	
5. SIP5	.73**	.66**	.75**	.80**	-																
6. SIP6	.65**	.66**	.63**	.74**	.76**	-															
7. SIP7	.62**	.61**	.67**	.67**	.74**	.81**	-														
8. SS1	.17*	.07	.22**	.19*	.21**	.14	.25**	-													
9. SS2	.19*	.08	.22**	.21**	.19*	.15	.22**	.70**	-												
10. SS3	.30**	.22**	.30**	.27**	.31**	.25**	.28**	.63**	.65**	-											
11. SS4	-.13	-.12	-.12	-.21**	-.13	-.16*	-.18*	-.38**	-.29**	-.31**	-										
12. SS5	.19*	.06	.16*	.24**	.20*	.14	.13	.57**	.54**	.63**	-.34**	-									
13. SS6	.31**	.18*	.32**	.36**	.33**	.23**	.29**	.55**	.70**	.65**	-.29**	.68**	-								
14. SS7	.26**	.10	.29**	.24**	.26**	.20*	.21**	.60**	.55**	.55**	-.33**	.66**	.72**	-							
15. SA1	.16*	.04	.17*	.16*	.19*	.13	.22**	.22**	.15	.20*	-.04	.22**	.24**	.25**	-						
16. SA2	.14	.12	.20*	.15*	.16*	.16*	.17*	.27**	.20**	.30**	-.06	.32**	.27**	.25**	.65**	-					
17. SA3	.10	.07	.20**	.10	.14	.15	.14	.28**	.17*	.32**	-.05	.32**	.28**	.30**	.59**	.66**	-				
18. SA4	.04	.01	.09	.04	.08	.06	.08	.12	.07	.13	.05	.20	.10	.12	.56**	.55**	.58**	-			
19. SA5	.01	-.03	.04	.04	.06	.04	.12	.30**	.09	.20**	-.03	.29**	.17*	.26**	.59**	.62**	.63**	.52**	-		
20. SA6	.13	.08	.13	.10	.13	.13	.16*	.24**	.14	.25**	-.02	.24**	.21**	.22**	.57**	.77**	.59**	.61**	.61**	-	
21. SA7	-.07	-.16*	-.06	-.10	-.08	-.06	-.05	-.16*	-.02	-.12	.18*	-.20*	-.14	-.25**	-.21**	-.13	-.17*	-.15	-.26**	-.09	-

**Correlation is significant at the 0.01 level (2-tailed); *Correlation is significant at the 0.05 level (2-tailed); SIP = social information processing; SSs = social skills; SA = social awareness.

Table A4.*Correlation Matrix of the Social Intelligence Scale after Poor Items are Discarded*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. SIP1	-																		
2. SIP2	.70**	-																	
3. SIP3	.80**	.71**	-																
4. SIP4	.69**	.67**	.72**	-															
5. SIP5	.73**	.66**	.75**	.80**	-														
6. SIP6	.65**	.66**	.63**	.74**	.76**	-													
7. SIP7	.62**	.61**	.67**	.67**	.74**	.81**	-												
8. SS1	.17*	.07	.21**	.19*	.21**	.14	.25**	-											
9. SS2	.19*	.08	.22**	.21**	.19*	.15	.22**	.70**	-										
10. SS3	.30**	.22**	.30**	.27**	.31**	.25**	.28**	.63**	.65**	-									
11. SS5	.19*	.06	.19*	.24**	.20*	.14	.13	.57**	.54**	.63**	-								
12. SS6	.31**	.18*	.32**	.36**	.33**	.23**	.29**	.55**	.70**	.65**	.68**	-							
13. SS7	.26**	.10	.29**	.24**	.26**	.20*	.21**	.60**	.55**	.55**	.66**	.72**	-						
14. SA1	.16*	.04	.17*	.16*	.19*	.13	.22**	.22**	.15	.20*	.22**	.24**	.25**	-					
15. SA2	.14	.12	.20*	.15*	.17*	.16*	.17*	.27**	.20**	.30**	.32**	.27**	.25**	.65**	-				
16. SA3	.10	.07	.20**	.10	.14	.15	.14	.28**	.17*	.32**	.32**	.28**	.30**	.59**	.66**	-			
17. SA4	.04	.01	.09	.04	.08	.06	.08	.12	.07	.13	.10	.10	.12	.56**	.55**	.58**	-		
18. SA5	.01	-.03	.04	.04	.06	.04	.12	.30**	.09	.20**	.29**	.17*	.26**	.59**	.62**	.63**	.53**	-	
19. SA6	.13	.08	.13	.10	.13	.13	.16*	.25**	.14	.25**	.24**	.21**	.22**	.57**	.77**	.59**	.61**	.61**	-

** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed); SIP = social information processing; SSs = social skills; SA = social awareness.

Table A5.*Correlation Matrix of the Cultural Intelligence Items of the Exploratory Factor Analysis*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.MetaCog1	-																			
2.MetaCog2	.57**	-																		
3. MetaCog3	.49**	.53**	-																	
4. MetaCog4	.43**	.51**	.51**	-																
5. Cog1	.14	.28**	.26**	.28**	-															
6. Cog2	.33**	.39**	.39**	.36**	.52**	-														
7. Cog3	.33**	.28**	.42**	.34**	.36**	.51**	-													
8. Cog4	.30**	.33**	.34**	.36**	.36**	.54**	.73**	-												
9. Cog5	.23**	.28**	.36**	.42**	.44**	.54**	.61**	.74**	-											
10. Cog6	.25**	.24**	.25**	.37**	.52**	.52**	.56**	.62**	.70**	-										
11. Motiv1	.42**	.44**	.45**	.27**	.17*	.41**	.40**	.40**	.27**	.35**	-									
12. Motiv2	.45**	.40**	.44**	.26**	.12	.30**	.38**	.39**	.28**	.34**	.67**	-								
13. Motiv3	.49**	.47**	.42**	.378**	.06	.36**	.42**	.49**	.33**	.36**	.72**	.67**	-							
14. Motiv4	.36**	.41**	.35**	.31**	.21**	.35**	.32**	.32**	.22**	.33**	.50**	.58**	.53**	-						
15. Motiv5	.46**	.48**	.42**	.43**	.34**	.46**	.43**	.40**	.34**	.49**	.55**	.59**	.58**	.69**	-					
16. Bhral1	.28**	.29**	.35**	.30**	.22**	.25**	.45**	.45**	.36**	.38**	.39**	.39**	.44**	.43**	.47**	-				
17. Bhral2	.37**	.36**	.40**	.23**	.26**	.24**	.34**	.37**	.28**	.23**	.403**	.35**	.323**	.38**	.39**	.61**	-			
18. Bhval3	.32**	.33**	.34**	.29**	.11	.27**	.34**	.37**	.31**	.21**	.37**	.43**	.36**	.42**	.39**	.56**	.67**	-		
19. Bhval4	.28**	.34**	.36**	.39**	.23**	.25**	.40**	.47**	.38**	.37**	.27**	.37**	.39**	.46**	.38**	.62**	.58**	.58**	-	
20. Bhval5	.26**	.39**	.36**	.25**	.18*	.27**	.39**	.36**	.29**	.39**	.44**	.42**	.45**	.41**	.40**	.63**	.58**	.62**	.60**	-

** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed); Metacog = metacognitive; Cog = cognitive; Motiv = motivational; Bhral = behavioral.

Appendix B

Content Validity Assessment (rated by an expert as an example)

Content Validity Assessment Sheet

Overview

The purpose of this questionnaire is to validate instruments aimed at measuring social intelligence and cultural intelligence as predictors of national identity among undergraduate students at Ethiopian public universities. Definitions of the constructs are provided for each instrument to guide you throughout the content validation.

General Task Directions

There are some demographic questions to be completed before you begin the validation task. Look at each of the items that are listed below under each subsection. On the basis of the descriptions provided, determine for each item whether the item is essential, useful but not essential, or nonessential at all.

The last two columns of the table invite you to make any additional comments or remarks, especially if you rate an item as not essential and/or nonessential and about the task in general and the items (e.g., wording, readability, ease of comprehension, understandability, etc.).

Once you have completed the entire task, SAVE the document with your information in a file name you prefer, attach it through the e-mail dawitd344@gmail.com, and send it to me, please.

Thank you very much for your cooperation and immense help with the improvement of this questionnaire!

Part 1: Demographic Information

1. Name: _____
2. Gender: _____
3. Education Level– Highest Degree Earned: _____
4. Place of Current Occupation: _____
5. Title or Position: _____
6. Discipline/Field of Study: _____
7. Number of years in the discipline: _____
8. Population focus (research area): _____
9. Have you ever been involved in instrument development before? If 'yes', how many? _____
10. (Answer at end) How long did it take to complete this task?

Part 2: Content Validity-Related Questions

Construct 1: National Identity

Definitions of the Construct and Its Dimensions/Factors

The items hereunder are intended to measure the level of Ethiopian national identity. Ethiopian national identity in this research is conceptualized as exploring Ethiopia, Ethiopians, its symbols and/or

cultures, and commitment because of membership in and identification with the social group (i.e., Ethiopian national identity) as a solidary homeland. It comprises two factors—exploration and commitment. For easy comprehension, definitions of these facets are given in their respective boxes.

How essential and useful do you think is each item in measuring the supposed construct? (To indicate the degree of relevance of an item, write 3 if the item is essential, 2 if the item is useful but not essential, and 1 if the item is nonessential in the first column). Please suggest a modified item or an additional item (for each item), if you think that the item is not essential to measure the supposed construct.

KEYNOTE (Item Relevance): 3= the item is Essential; 2= the item is Useful, but not essential; 1= the item is Nonessential

Definition of Exploration: 'Exploration' in the current research is operationally defined as the degree of curiosity and energy one pursues to acquire knowledge and information about the nation Ethiopia; including past histories of both glorious and inglorious aspects, which have been integral parts of Ethiopian national identity.

Item No.	Exploration Subscale Items	Item relevance	Suggested modification	Other items suggested
1	I have spent time trying to find out more about my Ethiopian nationality, such as its history, traditions, customs, etc. ስለ ኢትዮጵያዊ ማንነቴ፣ ታሪክ፣ ባህል፣ ልማድ ለማወቅ ጥረት አደርጋለሁ።	3		
2	I participate in organizations or social groups that include most members of my Ethiopian fellows without considering their specific ethnicity, religion, gender, etc. እንደ ብሄር፣ ሐይማኖት፣ ጾታ እና መስል ጉዳዮችን ሳልመለከት፣ ኢትዮጵያውያን ወገኖቼ በሚገኙበት ማህበራዊ ስብስቦች/አደረጃጀቶች ውስጥ ተሳትፎ አደርጋለሁ።	3		
4	I think a lot about how my life will be affected by my Ethiopian national group membership. ኢትዮጵያዊ መሆኔ በህይወቴ ላይ ያለውን ተፅዕኖ በብዛት አስበዋለሁ።	2		
8	To learn more about my Ethiopian nationality background, I have often talked to other people about it. ስለ ኢትዮጵያዊ ማንነቴ የበለጠ ለማወቅ ስል፣ ኢትዮጵያዊነትን አስመልክቶ ከሌሎች ሰዎች ጋር አወራለሁ/እወያያለሁ።	3		
10	I search to know about the cultural practices and symbols of my Ethiopian nationality, such as special food, music,	(2) Double barreled	I explored seeking to know more about cultural	

	dressing, and so on. ኢትዮጵያዊ መገለጫ የሆኑ ባህላዊ ልማዶችን እና ምልክቶችን (ማለትም የተለዩ ምግብ፣ ሙዚቃ፣ አለባበስ ወ.ዘ.ተ) ጉዳዮችን ታሪካዊ አመጣጣቸውን በመፈተሽ ለማወቅ እጥራለሁ።	item	issues of my Ethiopian nationality, such as special food, music, dressing, etc. ኢትዮጵያዊነትን የሚናገሩ የባህል ጉዳዮችን (ለምሳሌ፡- ባህላዊ ምግቦችን፣ ሙዚቃዎችን፣ አለባበሶችንና የመሳሰሉትን) ለማወቅ እጥራለሁ።	
12	I have spent time trying to know more about the historical facts and cultural practices of other members of my Ethiopian nationality group. ስለ ሌሎች ኢትዮጵያዊያን ወገኖቼ ታሪካዊ ዳራዎችና ባህሎች ለማወቅ ጥረት አደርጋለሁ።	3	I have spent time trying to know the historical facts and cultural practices of other members of my Ethiopian fellows. ስለ ሌሎች ኢትዮጵያዊ ወገኖቼ ታሪካዊ ዳራዎችና ባህሎች ለማወቅ ጥረት አደርጋለሁ።	
15	I have explored seeking to know more about cultural issues of my Ethiopian nationality, such as special food, music, dressing, etc. ኢትዮጵያዊ መገለጫ የሆኑ ጉዳዮችን (ለምሳሌ፡- እንደ ብሔራዊ ሰንደቅዓላማ ዓይነት) ታሪካዊ አመጣጣቸውን በመፈተሽ ለማወቅ እጥራለሁ።	3		
13	I have spent time trying to know about the festivals of Irreecha, Fichee-Chambalaalla, Ashenda, and etc., of Ethiopia. እንደ ኢሬቻ፣ ፍቼ-ጨምባላላ፣ አሸንዳ የመሳሰሉ የኢትዮጵያ ባህላዊ ትውፊቶችን ለማወቅ ጥረት አደርጋለሁ።	3		

Definition of Commitment: the level of identification and degree of an individual's attachment to Ethiopian nationality and identification with it and the subsequent investment and/or devotion that the individual can pay.

Item No.	Commitment Subscale Items	Item relevance	Suggested modification	Other items suggested
3	I have a clear sense of my Ethiopian nationality and what its membership means for me. ስለ ኢትዮጵያዊ ማንነቴ እና ኢትዮጵያዊነት ስላለው ትርጉም ለእኔ በደንብ ግልፅ ነው።	2	I have a clear sense of my Ethiopian nationality and what it means for me. ስለ ኢትዮጵያዊ ማንነቴ ግልፅ የሆነ ትርጉም አለኝ።	
5	I am happy that I am a member of the Ethiopian national group. ኢትዮጵያዊ/ት በመሆኔ ደስተኛ ነኝ።	2	I am happy that I am an Ethiopian. ኢትዮጵያዊ/ት በመሆኔ ደስተኛ ነኝ።	
6	I have a strong sense of belonging to my Ethiopian national group. ለኢትዮጵያዊ ማንነቴ ከፍኛ ብሄራዊ ስሜት አለኝ።	3	I have a strong sense of belonging to my Ethiopian nationality.	I am not comfortable with the word ‘national group’ but fine
7	I understand pretty well what my Ethiopian nationality group membership means to me. ኢትዮጵያዊ ብሄራዊ ማንነቴ ለእኔ ምን ማለት እንደሆነ በሚገባ ተረድቻለሁ።	3	Being Ethiopian/an Ethiopian	
9	I have a lot of pride in my Ethiopian nationality <u>group</u> . በኢትዮጵያዊነቴ በጣም እኮራለሁ።	3		
11	I have a strong attachment/affiliation towards my Ethiopian nationality <u>group</u> . ጠንካራ የኢትዮጵያዊ ስሜት አለኝ።	3	I have a strong attachment to my Ethiopian nationality.	I am fine with the Amharic.
14	I feel good about my Ethiopian cultural, historical, traditional, etc backgrounds. ስለ ኢትዮጵያ ባህላዊ፣ ታሪካዊ፣ ልማዳዊ እሴቶች ጥሩ ስሜት ይሰማኛል/አለኝ።	3		

Results of the Content validity Assessment by Raters

Results of the Content Validity Assessment of the National Identity Scale by Experts

Table C2.*Results of the Content Validity Assessment of the Social Intelligence Scale by Experts*

Items	Rater 1	Rater 2	Rater 3	Rater 4	Rater 5	Rater 6	Rater 7	Rater 8	I-CVI	Remark
SIP 1	3	3	3	3	3	3	3	3	1	Retained
SIP 2	3	3	3	3	3	3	3	3	1	Retained
SIP 3	3	3	3	2	3	3	3	3	0.75	Retained
SIP 4	3	3	3	3	3	3	3	3	1	Retained
SIP 5	3	3	3	3	3	3	3	3	1	Retained
SIP 6	3	3	3	3	3	3	3	3	1	Retained
SIP 7	3	3	3	3	3	3	3	3	1	Retained
SS 1	3	3	3	3	3	3	3	3	1	Retained
SS 2	3	3	3	3	3	3	3	3	1	Retained
SS 3	3	3	3	3	3	3	3	3	1	Retained
SS 4	3	3	3	2	3	3	3	3	0.75	Retained
SS 5	3	3	3	3	3	3	3	3	1	Retained
SS 6	3	3	3	3	3	3	3	3	1	Retained
SS 7	3	3	3	3	3	3	3	3	1	Retained
SA 1	3	3	3	3	3	3	3	3	1	Retained
SA 2	3	3	3	2	3	3	3	3	0.75	Retained
SA 3	3	3	3	3	3	3	3	3	1	Retained
SA 4	3	3	3	3	3	3	3	3	1	Retained
SA 5	3	3	3	2	3	3	3	3	0.75	Retained
SA 6	3	3	3	3	3	3	3	3	1	Retained
SA 8	3	3	3	1	3	3	3	3	0.75	Retained
CVI									19.75/21 =0.94	

Appendix D

English Version of the Instruments

Addis Ababa University

College of Education and Behavioral Studies

School of Psychology

A Pilot Study Questionnaire to be Filled out by Year Three and above Public University Students

Purpose: The purpose of this questionnaire is to collect data to measure *Ethiopian national identity, social intelligence, and cultural intelligence among senior undergraduate students at Ethiopian public universities*. Since the success of the study entirely depends on your valuable response, you are kindly requested to genuinely reply to all the items and complete the questionnaire. All the information obtained from you will be treated with complete confidentiality and used only for research purposes. Your time investment will be approximately 21 minutes.

I thank you very much for your willingness and your time!

Dawit Demlie, PhD student, AAU

Cell phone: +251911812826, email: dawitd344@gmail.com

- General Directions:**
- 1) Please do not write your name on any page of the questionnaire.
 - 2) Write only a code generated by you [yourselves] but keep the guidelines given by the coordinator.
 - 3) Please answer each question by writing the mark 'X' or '✓' for your choice(s) or by writing as needed.

Code _____

Demographic profile, Your:

Gender: Male ☐ Female ☐

Age: _____

Ethnic background: _____

Religion: _____

Original area of residence: Urban ☐ Rural ☐

Family Socioeconomic Status: High ☐ Medium ☐ Low ☐

Part I: The following table contains 15 sentences about Ethiopian National Identity. Please write an 'X' or '✓' mark for your choice(s) in each statement's box on the basis of how much you agree or disagree with these statements. Use the following scale:

5 = Strongly agree

4 = Agree

3 = Neutral

2 = Disagree

1 = Strongly disagree

Item No.	National Identity Items	5	4	3	2	1
1	I have spent time trying to find out more about my Ethiopian nationality, such as its history, traditions, customs, etc.					
2	I participate in organizations or social groups that include most members of my Ethiopian fellows without considering their specific ethnicity, religion, gender, etc.					
3	I have a clear understanding of my Ethiopian nationality and what it means to me.					
4	I think a lot ho my life will be affected by my Ethiopian nationality group membership.					
5	I am happy that I am an Ethiopian.					
6	I have a strong sense of belonging to my Ethiopian nationality.					
7	I understand pretty well what my Ethiopian nationality group membership means to me.					
8	To learn more about my Ethiopian nationality background, I have often talked to other people about it.					
9	I have a lot of pride in my Ethiopian nationality.					
10	I explored seeking to know more about cultural issues of my Ethiopian nationality, such as special food, music, dressing, etc.					
11	I have spent time trying to know the historical facts and cultural practices of other members of my Ethiopian fellows.					
12	I have explored more about the historical facts of symbols of my Ethiopian nationality, such as the Ethiopian national flag.					
13	I have a strong attachment/affiliation towards my Ethiopian nationality.					
14	I feel good about my Ethiopian cultural, historical, traditional, etc., backgrounds.					
15	I have spent time trying to learn about the festivals of <i>Irreecha</i> , <i>Fichee-Chambalaalla</i> , <i>Ashenda</i> , etc., of Ethiopia.					

Part II: The following table contains 21 statements about social intelligence. Please write an 'X' or '✓' mark for your choice(s) on each statement's box on the basis of how much you agree or disagree with these statements. Use the following scale:

7 = Strongly Agree

3 = Disagree

6 = Agree

2 = Slightly Disagree

5 = Slightly Agree

1 = Strongly Disagree

4 = Neutral

Item No.	SI Items	7	6	5	4	3	2	1
1	I can predict other people's behavior.							
2	I know how my actions will make others feel.							
3	I am always mindful of my actions thinking seriously about others' reactions towards what I do.							
4	I often feel uncertain about what I am doing right around new people who I don't know.							
5	I am not very surprised with the things people from different or similar							

	backgrounds often do.								
6	I understand other people's feelings.								
7	I have no difficulties fitting easily in social situations mostly.								
8	Other people become angry with me without being able to explain to me why.								
9	I understand others' wishes.								
10	I am good at entering new situations and meeting people for the first time.								
11	People are mostly comfortable with me when I say what I think.								
12	I have no problems getting along with other people mostly.								
13	I can identify predictable and unpredictable people and treat them and/or act accordingly.								
14	I can often understand what others are trying to accomplish without the need for them to say anything.								
15	It doesn't take me a very long time to get to know others well mostly.								
16	I realize it when I offend others or make them feel bad.								
17	I can predict how others will react to my behavior.								
18	I am good at getting on good terms with new people.								
19	I can often understand what others mean through their expressions, body language, etc.								
20	I frequently have no problems finding and bringing good conversation topics.								
21	I often feel that it is not very difficult to understand others' choices.								

Part III: The following table contains 20 sentences about cultural intelligence. Please write an 'X' or '✓' mark for your choice(s) on each statement's box on the basis of how much you agree or disagree with these statements. Use the following scale:

7 = Strongly Agree
 6 = Agree
 5 = Slightly Agree
 4 = Neutral

3 = Disagree
 2 = Slightly Disagree
 1 = Strongly Disagree

No.	CQ Items	7	6	5	4	3	2	1
1	I am conscious of the cultural knowledge I use when interacting with people from different cultural backgrounds.							
2	I try to adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.							
3	I know the legal and economic systems of the cultures in the Northern, Southern, Eastern, Western and Central parts of Ethiopia.							
4	I am conscious of the cultural knowledge I apply to cross-cultural interactions.							
5	I know some vocabulary (e.g., greeting words) and rules of communication of languages in Ethiopia such as <i>Guragigna</i> , <i>Afan Oromo</i> , <i>Tigregna</i> , etc.							
6	I know the cultural values, norms and religious beliefs of the <i>Afar</i> , <i>Somali</i> , <i>Siltie</i> , etc.							
7	I check the accuracy of my cultural knowledge as I interact with people from different							

	cultures.								
8	I know the favorite food and the feeding rules associated with the Amhara, Somali, <i>Hadya</i> , <i>Tigray</i> , <i>Guragie</i> , etc., cultures of Ethiopia.								
9	I know the arts, crafts, music and specific holidays of the <i>Wolayta</i> , <i>Harari</i> , <i>Gamo</i> , etc., cultures in Ethiopia.								
10	I know the rules of dressing, hairstyle, and related cultural practices of the <i>Hammer</i> , <i>Kambata</i> , <i>Afar</i> , etc., cultures in Ethiopia.								
11	I enjoy interacting with people from different cultures.								
12	I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.								
13	I use facial expressions and vocals differently to suit different cross-cultural situations.								
14	I am confident that I can socialize with the locals in a culture that is unfamiliar to me.								
15	I vary the rate of my speaking (e.g., pause & silence) when a cross-cultural situation requires it.								
16	I am curious to learn more and know better about other cultures that are new to me.								
17	I change my nonverbal behavior when a cross-cultural situation requires it.								
18	I alter my facial expressions when a cross-cultural interaction requires it.								
19	I enjoy living in cultures that are unfamiliar to me and can deal with the stress of adjusting myself to them.								
20	I am confident that I can get accustomed to the living systems (e.g., shopping conditions) of other cultures in Ethiopia.								

Part IV: The following table contains 10 sentences. Please write an ‘X’ or ‘✓’ mark for your choice(s) on each sentence, whether it is true or false about you.

No.	Social Desirable Responses (SDR) Items	True	False
1	I never hesitate to go out of my way to help someone in trouble.		
2	It is sometimes hard for me to go on with my work if I am not encouraged.		
3	I have never intensely disliked anyone.		
4	I am always careful about my manner of dress.		
5	No matter who I’m talking to, I’m always a good listener.		
6	I can remember “playing sick” to get out of something.		
7	I don’t find it particularly difficult to get along with loud-mouthed, obnoxious people.		
8	I am always courteous, even to disagree.		
9	I never resent being asked to return a favor.		
10	There have been times when I was quite jealous of the good fortune of others.		

Finished!

Thank you so much once again!

Appendix E

Amharic Version of the Instruments

በአዲስ አበባ ዩኒቨርሲቲ

የትምሕርት እና ሥነ-ባሕሪ ጥናት ኮሌጅ

የሳይኮሎጂ ትምሕርት ቤት

ለናሙና ጥናት የተዘጋጀ፤ ሦስተኛ ዓመትና በላይ በሆኑ የመንግስት ዩኒቨርሲቲ የቅድመ ምረቃ ተማሪዎች የሚሞላ መጠይቅ

ዓላማ:- ይህ መጠይቅ ስለ ኢትዮጵያዊ ማንነት፣ ስለ የማህበረ ዕውቀት ልቀት እና ስለ የባህል ዕውቀት ልቀት ጥናት ለማድረግ ታስቦ የተዘጋጀ መጠይቅ ነው። ውድ ተሳታፊ የጥናቱ ውጤታማነት እርስዎ በሚሰጡት መልስ የሚወሰን ስለሚሆን፣ ለሁሉም ጥያቄዎች በፍፁም ታማኝነት መልስ እንዲሰጡ በአክብሮት እጠይቃለሁ። በዚህ መጠይቅ ላይ ከእርስዎ የተገኘው መረጃ በምስጢር የሚያዝና ከጥናቱ ዓላማ ውጭ በምንም ዓይነት መንገድ ለሌላ አገልግሎት የማይወል መሆኑን በድጋሜ አረጋግጣለሁ። መጠይቁን ሞልቶ ለመጨረስ የሚያስፈልገው ጊዜ 21 ደቂቃ ገደማ ይሆናል። አመሠግናለሁ!

ዳዊት ደምሌ፣ የፒ.ኤች.ዲ ተማሪ፣ አዲስ አበባ ዩኒቨርሲቲ

ስልክ ቁጥር:- +251911812826፣ ኢሜይል:- dawitd344@gmail.com

አጠቃላይ መመሪያዎች:- (1) በመጠይቁ ላይ ስም መፃፍ አይቻልም። (2) "መለያ ቁጥር" በሚል ወጭ ክፍት ቦታ ላይ፣ በአስተባባሪው በሚነገረው መነሻ መሰረት የሚፈልጉትን ቁጥር ይስጡ። (3) በተሰጠው ክፍት ቦታ ላይ የ 'X' ወይም የ '✓' ምልክት በማድረግ በጥያቄው መሰረት መልስዎን ያስቀምጡ።

መለያ ቁጥር:- _____

የእርስዎ የግል መረጃ:-

ሀ. ጾታ:- ወንድ ☐ ሴት ☐ ለ. እድሜ:- _____

ሐ. ብሔር:- _____ መ. ሐይማኖት:- _____

ሠ. በቋሚነት የመጡበት/የሚኖሩበት አካባቢ:- ከተማ ነው ☐ ገጠር ነው ☐

ረ. የቤተሰብ የምጣኔ ሀብት ደረጃ:- ከፍተኛ ☐ መካከለኛ ☐ ዝቅተኛ ☐

ክፍል አንድ:- ከዚህ በታች የተዘረዘሩት 15 ዓረፍተነገሮች ኢትዮጵያዊ ማንነትን የተመለከቱ ናቸው። በእያንዳንዱ ዓረፍተነገር ምን ያሽል እንደሚስማሙ ወይም እንደማይስማሙ ከ 1 እስከ 5 ውጤት

በመስጠት፣ ከፊትለፊት ባለው ክፍት ቦታ/ሳጥን ውስጥ የ 'X' ወይም የ '✓' ምልክት በማድረግ፣ የስምምነትዎን ወይም ያለመስማማትዎን መጠን ይግለጹ። እባክዎን የሚከተለውን መግለጫ ይጠቀሙ፤

5 = በጣም እስማማለሁ

4 = እስማማለሁ

3 = መወሰን አልቻልኩም

2 = አልስማማም

1 = በፍፁም አልስማማም

ተ.ቁ	ኢትዮጵያዊ ማንነትን የተመለከቱ ዓረፍተነገሮች	5	4	3	2	1
1	ስለ ኢትዮጵያዊ ማንነቴ ታሪክ፣ ባህል፣ ልማድ ለማወቅ ጥረት አደርጋለሁ።					
2	እንደ ብሄር፣ ሐይማኖት፣ ጾታ እና መሰል ጉዳዮችን ሳልመለከት፣ ኢትዮጵያውያን ወገኖቼ በሚገኙበት ማህበራዊ ስብስቦች/አደረጃጀቶች ውስጥ ተሳትፎ አደርጋለሁ።					
3	ስለ ኢትዮጵያዊ ማንነቴ ግልፅ የሆነ ትርጉም አለኝ።					
4	ኢትዮጵያዊ በመሆኔ በህይወቴ ላይ ያለውን ተፅዕኖ አብዛኛውን ጊዜ አስበዋለሁ።					
5	ኢትዮጵያዊ/ት በመሆኔ ደስተኛ ነኝ።					
6	ለኢትዮጵያዊ ማንነቴ ከፍኛ ብሄራዊ ስሜት አለኝ።					
7	በኢትዮጵያዊነት የብሄራዊ ማንነት ማዕቀፍ ውስጥ መገኘት ማለት ምን ማለት እንደሆነ በሚገባ እረዳለሁ።					
8	ስለ ኢትዮጵያዊ ማንነቴ የበለጠ ለማወቅ ስል፣ ኢትዮጵያዊነትን አስመልክቶ ከሌሎች ሰዎች ጋር አወራለሁ/እወያያለሁ።					
9	በኢትዮጵያዊነቴ በጣም እኮራለሁ።					
10	ኢትዮጵያዊነትን የሚናገሩ የባህል ጉዳዮችን (ለምሳሌ፡- ባህላዊ ምግቦችን፣ ሙዚቃዎችን፣ አለባበሶችንና የመሳሰሉትን) ለማወቅ እጥራለሁ።					
11	ስለ ሌሎች ኢትዮጵያዊ ወገኖቼ ታሪካዊ ዳራዎችና ባህሎች ለማወቅ ጥረት አደርጋለሁ።					
12	ኢትዮጵያዊ መገለጫ የሆኑ ጉዳዮችን (ለምሳሌ፡- እንደ ብሄራዊ ሰንደቅ-ዓለማዊ ዓይነት) ታሪካዊ አመጣጣቸውን በመፈተሽ ለማወቅ እጥራለሁ።					
13	ጠንካራ የኢትዮጵያዊ ስሜት አለኝ።					
14	ስለ ኢትዮጵያ ባህላዊ፣ ታሪካዊ፣ ልማዳዊ እሴቶች ጥሩ ስሜት ይሰማኛል/አለኝ።					
15	እንደ ኢፊቻ፣ ፍቼ ጨምባላ፣ አሸንዳ የመሳሰሉ የኢትዮጵያ ባህላዊ ትውፊቶችን ለማወቅ ጥረት አደርጋለሁ።					

ክፍል ሁለት፡- ከዚህ በታች የተዘረዘሩት 21 ዓረፍተነገሮች የማህበረ ዕውቀት ልቀትን የተመለከቱ ናቸው። በእያንዳንዱ ዓረፍተነገር ምን ያሽል እንደሚስማሙ ወይም እንደማይስማሙ ከ 1 እስከ 7 ባለው ደረጃ ውስጥ ውጤት በመስጠት፣ ከፊትለፊት ባለው ክፍት ቦታ/ሳጥን ውስጥ የ 'X' ወይም የ '✓' ምልክት በማድረግ፣ የስምምነትዎን ወይም ያለመስማማትዎን መጠን ይግለጹ። እባክዎን የሚከተለውን መግለጫ ይጠቀሙ፤

7 = በጣም እስማማለሁ ፤ 6 = እስማማለሁ ፤ 5 = በመጠኑ እስማማለሁ ፤ 4 = መወሰን አልቻልኩም ፤ 3 = አልስማማኝም ፤ 2 = በመጠኑ አልስማማኝም ፤ 1 = በፍፁም አልስማማኝም

ተ.ቁ	የማህበረ ዕውቀት ልቀትን የተመለከቱ ዓረፍተነገሮች	7	6	5	4	3	2	1
1	የሌሎች ሰዎችን ባህሪ መገመት እችላለሁ።							
2	የእኔ ድርጊቶች ለሌሎች የሚሰጧቸውን ስሜት አወቃለሁ።							
3	የሌሎችን ግብረ-መልስ በማሰብ ሁለጊዜ ለማድረግዎ ያገኛል ከፍተኛ ትኩረት እሰጣለሁ።							
4	ከማለወቃቸው ሰዎች ጋር ስሆን አብዛኛውን ጊዜ በማድረጋቸው ነገሮች ተገቢነት ላይ የማመንታት/የመጠራጠር ስሜት ይሰማኛል።							
5	አብዛኛውን ጊዜ ሰዎች (ተመሳሳይም ይሁን የተለያዩ የጀርባ ታሪክ ያላቸው) በሚያደርጓቸው ነገሮች፣ እምብዛም አልደነቅም/አልገረምም።							
6	የሌሎች ሰዎችን ስሜት እረዳለሁ።							
7	በማህበራዊ ጉዳዮች ውስጥ ስገኝ በቀላሉ ሁኔታዬ የሚጠይቀውን መሆን አብዛኛውን ጊዜ አይቸግረኝም።							
8	ለምን እንደሆነ ምክንያቱን ሳያብራሩልኝ ሰዎች ይናደዱብኛል።							
9	የሌሎችን ምቹት/ፍላጎት እረዳለሁ።							
10	ለመጀመሪያ ጊዜ አዲስ ሰው ማግኘት እና አዳዲስ ሁኔታዎች ውስጥ ለመግባት ጎበዝ ነኝ።							
11	ሀሳቤን ስናገር/ሳቀርብ በሰዎች ዘንድ አብዛኛውን ጊዜ መከፋትን አላይም።							
12	ከሌሎች ሰዎች ጋር አንድ ላይ መሆን በብዛት አይቸግረኝም።							
13	ተገማች እና የማይገመቱ ሰዎችን መለየትና እንደ ባህሪያቸው ማስተናገድ እችላለሁ።							
14	ከሰዎቹ ማብራሪያ ሳያስፈልገኝ፣ ሰዎች ምን ለማሳካት እንደሚጥሩ አብዛኛውን ጊዜ መረዳት እችላለሁ።							
15	ሰዎችን በደንብ ለማወቅ በጣም ረዥም የሚባል ጊዜ አይወስድብኝም።							
16	ሌሎች ሰዎችን ሳስቀይም ወይም ሳሳዝን ይታወቀኛል/እንነዘባለሁ።							
17	ለእኔ ባህሪ/ድርጊት ሰዎች እንዴት ግብረ-መልስ ሊሰጡኝ እንደሚችሉ አስቀድሜ መገመት እችላለሁ።							
18	ከአዳዲስ ሰዎች ጋር በመግባባት ረገድ ጎበዝ ነኝ።							
19	አብዛኛውን ጊዜ ሌሎች ሰዎች ምን ለማለት እንደፈለጉ (አካላዊ ቋንቋንም ጨምሮ) መረዳት እችላለሁ።							
20	ለወይይት የሚሆኑ ጥሩ አርዕስት በመምረጥ እና በማምጣት ረገድ በአብዛኛው ችግር የለብኝም።							
21	አብዛኛውን ጊዜ የሰዎችን ምርጫ መረዳት በጣም አስቸጋሪ እንዳልሆነ ይሰማኛል።							

ክፍል ሦስት፡- ከዚህ በታች የተዘረዘሩት 20 ዓረፍተነገሮች የባህል ዕውቀት ልቀትን የተመለከቱ ናቸው። በእያንዳንዱ ዓረፍተነገር ምን ያሽል እንደሚስማሙ ወይም እንደማይስማሙ ከ 1 እስከ 7 ባለው ደረጃ ውስጥ ውጤት በመስጠት፣ ከፊትለፊት ባለው ክፍት ቦታ/ሳጥን ውስጥ የ 'X' ወይም የ '✓' ምልክት በማድረግ፣ የስምምነትዎን ወይም ያለመስማማትዎን መጠን ይግለጹ። እባክዎን የሚከተለውን መግለጫ ይጠቀሙ፤

7 = በጣም እስማማለሁ ፤ 6 = እስማማለሁ ፤ 5 = በመጠኑ እስማማለሁ ፤ 4 = መወሰን አልቻልኩም ፤ 3 = አልስማማለሁም ፤ 2 = በመጠኑ አልስማማለሁም ፤ 1 = በፍጹም አልስማማለሁም

ተ.ቁ	የባህል ዕውቀት ልቀትን የተመለከቱ ዓረፍተነገሮች	7	6	5	4	3	2	1
1	ከሌላ ባህል ከመጣ ሰው ጋር መስተጋብር ስፈጥር፣ ያለኝን የባህል ዕውቀት ተገንዝቤ እና ንቁ ሆኜ ነው።							
2	እኔ ካለመድኩት ባህል የመጡ ሰዎች ጋር ስገናኝ፣ ያለኝን የባህል ዕውቀት ከሁኔታው ጋር አስተካክቤ ለመግባባት እጥራለሁ።							
3	በኢትዮጵያ ውስጥ ያሉ የሰሜን፣ የደቡብ፣ የምስራቅ እና የምዕራብ ባህሎችን ህጋዊና ምጣኔ ሀብታዊ ሥርዓት አውቃለሁ።							
4	የተለያዩ ባህላዊ ዳራ ካላቸው ሰዎች ጋር በማድረግው መሥተጋብር፣ የምጠቀመውን የባህል ዕውቀት ለይቶ አውቄ ነው።							
5	እንደ ጉራጊኛ፣ አሮምኛ፣ ትግረኛ ወ.ዘ.ተ ቋንቋዎችን አንዳንድ ቃላት (ለምሳሌ፡- የሠላምታ ቃላት) እና የተግባቦት ህግጋት አውቃለሁ/ እገነዘባለሁ።							
6	የአፋር፣ የሶማሌ፣ የስልጤ፣ ወ.ዘ.ተ ባህላዊ እሴቶችን፣ ልማዶችን፣ ወጎችን እንዲሁም ዕምነቶችን አውቃለሁ።							
7	ከሌላ ባህል ከሆኑ ሰዎች ጋር በማድረግው መስተጋብር፣ የባህል ዕውቀቴን ተገቢነት አረጋግጬ ነው።							
8	በኢትዮጵያ ውስጥ ባሉ እንደ አማራ፣ ትግራይ፣ ሶማሌ፣ ሀድያ፣ ጉራጌ፣ ወ.ዘ.ተ ባህሎች ውስጥ ያሉ ተወዳጅ ምግቦችንና የአመጋገብ ሥርዓታቸውን አውቃለሁ።							
9	እንደ ወላይታ፣ ሐረሪ፣ ጋሞ፣ ወ.ዘ.ተ ባህል ውስጥ የሚገኙ፣ የሥነ-ጥበብ፣ የዕድ ጥበብና የሙዚቃ ትውፊቶችን እንዲሁም በዓላትን አውቃለሁ።							
10	የሐመር፣ ከምባታ፣ አፋር፣ ወ.ዘ.ተ ባህሎችን የአለባበስ፣ የጸጉር አቆራረጥ/አሰራር እና መሰል ጉዳዮችን አውቃለሁ።							
11	ሌላ ባህል ካላቸው ሰዎች ጋር መቀራረብ እና መነጋገር ያስደስተኛል።							
12	ከሌላ ባህል ከሆኑ ሰዎች ጋር ሳወራ፣ የንግግር ተግባቦት ባህሪን (ለምሳሌ፡- ዘዬና ድምፀቴን) አስፈላጊ ሆኖ ከተገኘ ለመግባባት ስል እቀያይራለሁ።							
13	ከሌላ ባህል ሰዎች ጋር ሳወራ፣ አውዱ እንደሚፈልገው ከሁኔታው ጋር ተስማሚ ለመሆን የፊት ገፅታ ቋንቋ እና የተለያዩ የድምፅ አወጣጥ ዘዴን በንግግር ወቅት እጠቀማለሁ።							
14	ለእኔ አዲስ በሆነ ባህል ውስጥ፣ ከአካባቢው ሰዎች ጋር መላመድና መግባባት እንደምችል እርግጠኛ ነኝ።							

15	ከሌላ ባህል ከሆኑ ጋር በማወራበት ወቅት፤ እንደ አውዱ አስፈላጊነት የንግግር ፍጥነቱን በመቆጣጠር (ለምሳሌ፡- ዝምታና አረፍ ማለትን በመጠቀም) አወራለሁ።								
16	ስለ ሌሎች ባህሎች የበለጠ ለመማር እና የተሻለ ለማወቅ ጉጉት አለኝ።								
17	ከሌላ ባህል ሰዎች ጋር ባለኝ ግንኙነት፤ እንደ አውዱ አስፈላጊነት በምልክትና በሰውነት እንቅስቃሴ ላይ የተመሰረተ የመግባቢያ መንገዴን ለመግባባት ስል እቀያይረዋለሁ።								
18	ከሌላ ባህል ሰዎች ጋር ባለኝ ግንኙነት፤ በፊት ገፅታ እንቅስቃሴ የሚደረግ የመግባባት ስልቴን እንደየ አውዱ አስፈላጊነት እለዋውጠዋለሁ።								
19	እንግዳ በሆኑብኝ ባህሎች ውስጥ መኖር ያስደስተኛል፤ ከመላመድ ጋር ተያይዞ የሚኖረዉን አሉታዊ ጫናም መቋቋም እችላለሁ።								
20	ኢትዮጵያ ውስጥ ባሉ ሌሎች ባህሎች የአኗኗር ሥርዓት (ለምሳሌ፡- የግብይት ሁኔታ) ጋር ራሴን በማላመድና በማዋሃድ መኖር እንደምችል እርግጠኛ ነኝ።								

ክፍል አራት፡- ከዚህ በታች የተዘረዘሩት 10 ዓረፍተነገሮች ተሰጥተዋል። እውነት ወይም ሀሰት በማለት መልስ ለመስጠት የ 'X' ወይም የ '✓' ምልክት ከፊትለፊት ባለው ክፍት ቦታ/ሳጥን ውስጥ ያስቀምጡ።

ተ.ቁ	ዓረፍተነገሮች	እውነት	ሀሰት
1	ችግር ላይ ያለን ሰው ለመርዳት ስል ማንኛውንም መስዋዕትነት ለመክፈል አላመነታም።		
2	የብርታት ሥሜት ካልተሰማኝ በስተቀር አንዳንድ ጊዜ ወደ ክፍል አልገባም ወይም አላነብም።		
3	በህይወቴ ማንንም ሰው በፍፁም አምርሬ ጠልቼ አላዉቅም።		
4	የአለባበሴን ተገቢነት በተመለከተ ሁልጊዜ እጠነቀቃለሁ።		
5	ከማንም ጋር ቢሆን፤ ወሬ ላይ ጥሩ አድማጭ ነኝ።		
6	ከሆነ ነገር ለማምለጥ ስል “አሞኛል” ብዬ አውቃለሁ።		
7	ከሚጮሁ እና አስቀያሚ ቃላትን ከሚጠቀሙ ሰዎች ጋር መሆን/መዋል ብዙም አይከብደኝም።		
8	ለአስቸጋሪ ሰዎችም ጭምር ሁልጊዜ ትሁት ነኝ።		
9	ለተደረገልኝ መልካም ነገር/ውለታ፤ ምላሽ ብጠየቅ በፍፁም አይከፋኝም።		
10	ጥሩ ነገር በገጠማቸው ሰዎች የቀናሁበት ጊዜ አለ።		

አመሠግናለሁ!!

Appendix F

Sample Letter of Cooperation for Main Study Data Collection

አዲስ አበባ ዩኒቨርሲቲ
የሳይክሎሎጂ ት/ቤት



ADDIS ABABA UNIVERSITY
School of Psychology

February 17, 2023

Ref.No *Psy/372/2023/15*

To: Adama Science and Technology University
Adama

Subject: Soliciting Your Cooperation

Dear Sir/Madam;

This is to bring to your attention that Dawit Demillie Messay ID. No. GSR//7231/10. has been enrolled in the doctoral program of Applied Social Psychology since 2017/18 academic year.

Dawit has attended and completed all the requisite courses of the Program, has successfully defended his proposal upgrading, and is currently on the final phase of his dissertation titled *"Social Intelligence and Cultural Intelligence as Predictors of National Identity among Public University Students of Ethiopia"*.

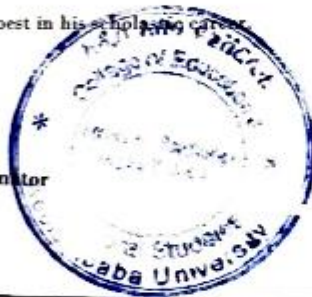
We would, therefore, like to appreciate the cooperation of your Office in availing the facilitative conditions the candidate would need to collect the pertinent data and subsequently meet the qualification requirements of a PhD degree in Applied Social Psychology.

We wish Dawit all the best in his scholarly career.

Regards,

Teka Zewdie
Teka Zewdie, (PhD)

PhD Programs Coordinator
School of Psychology



Fax 251-111225949 ☒ A.A.U 1176

Appendix G

Sample Letter of Cooperation for Pilot Study Data Collection

አዲስ አበባ ዩኒቨርሲቲ
የሳይክሎሎጂ ት/ቤት



ADDIS ABABA UNIVERSITY
School of Psychology

March 25, 2022.
Ref. No. *Psyc/014/2014*

To: The Office of the President
Wollo University
Dessie

Subject: Request for Cooperation

Dear Madam/Sir;

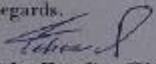
This is to bring to your attention that Dawit Demie, ID. No. GSR/7231/10 has been enrolled in the doctoral program of Applied Social Psychology since 2017/2018 academic year.

Dawit has successfully defended his dissertation proposal on January 4, 2022 before a panel of examiners. The proposal was titled "Social Intelligence and Cultural Intelligence as Predictors of National Identity among Public University Students of Ethiopia".

Dawit is currently working on the upgrading phase of his dissertation but needs the unreserved support of your Institution.

We would, therefore, like to request the cooperation of your Office to avail the needed information that Dawit would need in his efforts to meet the qualification requirements leading to a terminal degree in Applied Social Psychology.

We wish Dawit all the best in his scholastic career.

Regards,

Teka Zewdie, (PhD)
PhD Programs Coordinator
School of Psychology



☎ 251-111225949 Fax 251-111225949 ✉ A.A.U 1176
Email: psyc.AAU@telecom.net

Appendix H

Consent form of the English Version

Consent Form

I, the undersigned, agree to participate in the research project titled "Social Intelligence and Cultural Intelligence as Predictors of National Identity among Undergraduate Public University Students of Ethiopia", conducted by Dawit Demlie, who has discussed the research project and the copy of the permit letter with me. I have had the opportunity to ask questions about this research and received satisfactory answers. I understand the general purposes and methods of this research. I consent to participate in the research project and the following has been explained to me:

- the research may not be of direct benefit to me
- my participation is completely voluntary
- my right to withdraw from the study at any time without any implications to me
- the challenges including any possible inconvenience or discomfort as a consequence of my participation in the research project
- the steps that have been taken to minimize any possible insecurity and what I am expected and required to do
- whom I should contact for any complaints about the research or the conduct of the research
- security and confidentiality of my personal information.

In addition, I consent to the publication of the results from this study, provided that my identity is not revealed.

Signature: _____

Date: _____

Appendix I

Consent form of the Amharic Version

የተሳታፊነት ስምምነት

አኔ ከታች ፊርማዬ የተቀመጠው ግለሰብ፡ “የማኅበረ ዕውቀት ልቀት እና የባህል ዕውቀት ልቀት ለማንነት ትንበያ፣ በኢትዮጵያ የመንግሥት የዩኒቨርሲቲ የቅድመ ምረቃ ተማሪዎች” በሚል ርዕስ ለሚደረገው ጥናት ተሳታፊ ለመሆን ተስማምቻለሁ። በጥናት አድራጊው ዳዊት ደምሌ ጥናቱን በመተመለከት ገለጻ ተደርጎልኛል። ጥናቱን እንዲያደርጉ የተፈቀደላቸውን የደብዳቤ ኮፒም አይቻለሁ። ጥያቄ የመጠየቅ ዕድል ተሰጥቶኝም ተገቢውን ማብራሪያ አግኝቻለሁ። አጠቃላይ የጥናቱን ዓላማ እና ሥነ ዘዴም ተረድቻለሁ። ሥለሆነም በሚከተሉት ጉዳዮች ላይ ገለጻ ተደርጎልኝ፤ በጥናቱ ላይ ለመሳተፍ ተስማምቻለሁ፤

- የጥናቱ ቀጥተኛ ተጠቃሚ ላልሆን እችላለሁ፤
- ተሳትፎዬ ሙሉ በሙሉ በፈቃደኝነት ነው፤
- በማንኛውም ወጣት ከጥናቱ ለመውጣት ሙሉ መብት ይኖረኛል፤
- የጥናቱ ተሳታፊ በመሆኔ ሊያጋጥሙኝ የሚችሉ “የምናልባት” ግምታዊ ተግዳሮቶችን አውቂያለሁ፤
- ከደህንነት አንጻር ሊከናወኑ የሚገቡ ቅደም ተከተሎችን እንዳውቅና በእኔ በኩል የሚጠበቀውም ተነግሮኛል፤
- ጥናቱን እና የጥናት አካሄዱን በተመለከተ ቅሬታ ካለኝ ለየትኛው አካል ማድረስ እንደምችል ተነግሮኛል፤
- ከእኔ የሚወሰዱ መረጃዎች በጥንቃቄ እና በሚስጥር እንደሚያዙ ተረጋግጦልኛል።

በተጨማሪም ማንነቴ ሳይገለጽ የዚህ ጥናት ውጤት እንዲታተም ተስማምቻለሁ።

ፊርማ:- _____

ቀን:- _____

Appendix J

Research Ethical Approval Form


 Addis Ababa University
 College of Education and Behavioral Studies
 School of Psychology

SOP-Eth/005/23

RESEARCH ETHICAL APPROVAL APPLICATION FORM

Tick one box: ☐ Staff project ☒ Graduate project ☐ Undergraduate Project

Title of Project: The Relationship between Emotional Intelligence and Turnover Intention: Social Intelligence and Cultural Intelligence as Predictors of National Identity Among Public University Students of Ethiopia

Name of researcher(s): Dawit Demlie Messay

Name of supervisor (for student research): Dr. Tamerie Andualem: Date: December 30, 2022

Please answer the following questions by selecting from these choices and ticking:		YES	NO	Not Applicable
1	Will you describe the main research procedures to participants in advance, so that they are informed about what to expect?	X		
2	Will you tell participants that their participation is voluntary?	X		
3	Will you obtain written consent for participation?	X		
4	If the research is observational, will you ask participants for their consent to being observed?		X	
5	Will you tell participants that they may withdraw from the research at any time and for any reason?	X		
6	With questionnaires, will you give participants the option of omitting questions they do not want to answer?	X		
7	Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?	X		
8	Will you debrief participants at the end of their participation (i.e. give them a brief explanation of the study)?	X		

If you have ticked 'No' to any of questions 1 – 8, please give an explanation on a separate sheet of paper.

Please answer the following questions by selecting from these choices and ticking:		YES	NO	Not Applicable
9	Will your project involve deliberately misleading participants in any way?		X	
10	Is there any realistic risk of any participants experiencing either physical		X	

Appendix K
Boxplots for Outliers Assessment

Figure K1.
Boxplot Depicting Outliers of the National Identity Measure

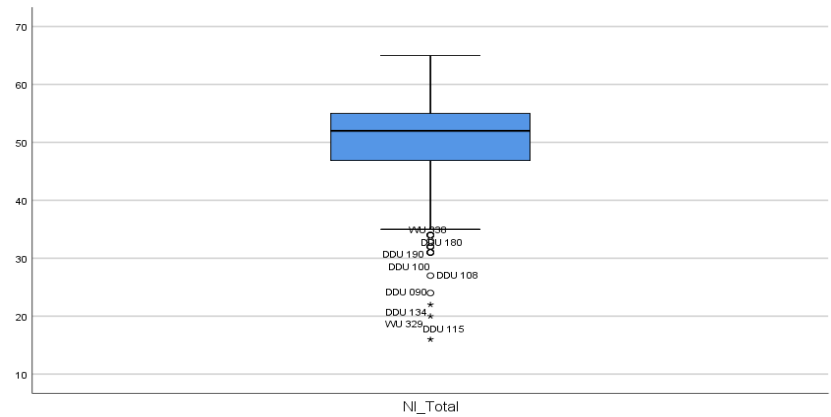


Figure K2.
Boxplot Depicting Outliers of the Social Intelligence Measure

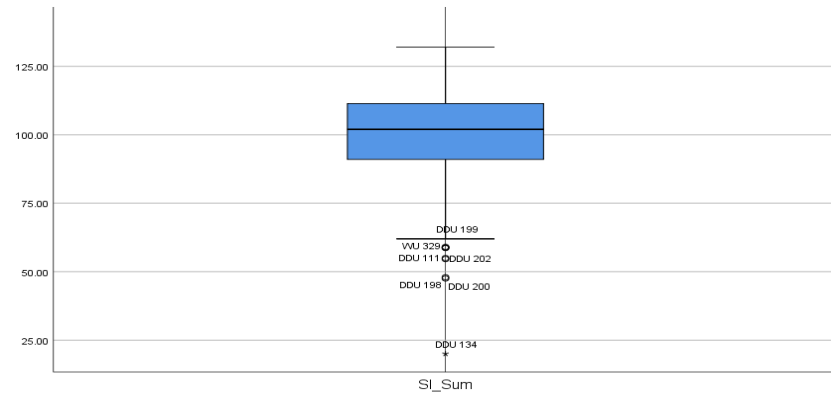
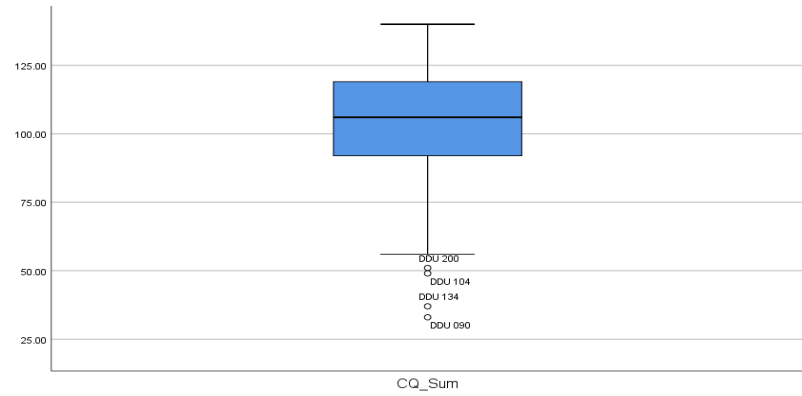


Figure K3.
Boxplot Depicting Outliers of the Cultural Intelligence Scale



Appendix L

P-P Plots for Outliers Assessment

Figure L1.

P-P Plot of Social Intelligence Scores

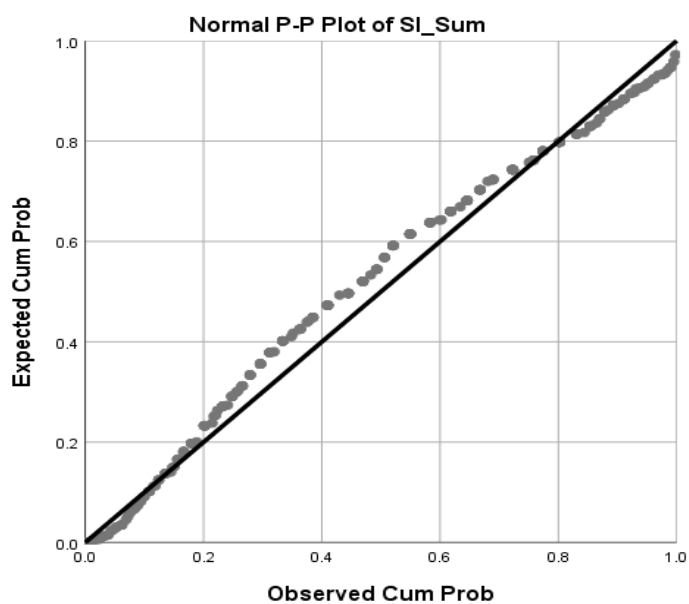
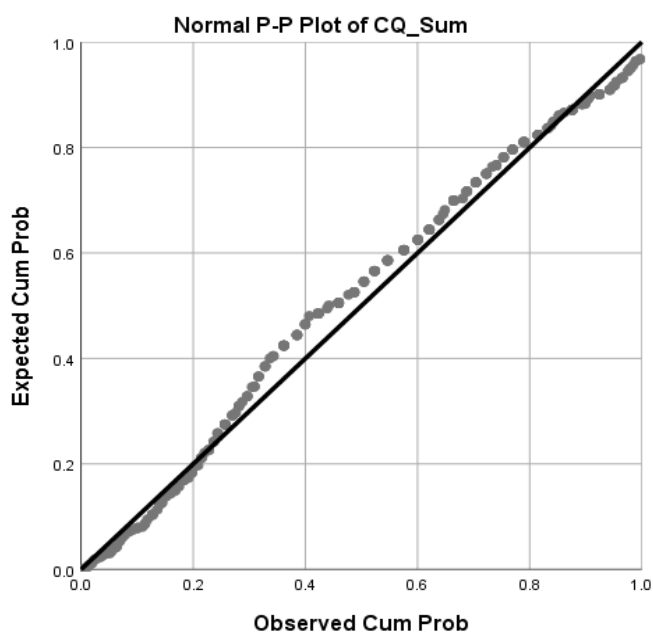


Figure L2.

P-P Plot of Cultural Intelligence Scores



Appendix M

KMO and Bartlett's Test of National Identity, Social, and Cultural Intelligence Measures

		NI		SI		CQ
		<i>With poor items</i>	<i>Without poor items</i>	<i>With poor items</i>	<i>Without poor items</i>	
Kaiser–Meyer–Olkin Measure of Sampling Adequacy.		.921	.925	.868	.869	.894
Bartlett's Test of Sphericity	Approx. Chi-Square	1881.233	1867.753	2311.103	2272.997	1971.434
	df	105	78	210	171	190
	Sig.	.000	.00	.00	.000	.000

Appendix N

Total Variance Explained and Scree Plots from the Explanatory Factor Analyses

Table N1.

Total Variance Explained for the National Identity Measure

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings*
				Loadings			Squared Loadings*
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	7.634	58.724	58.724	7.346	56.504	56.504	6.416
2	2.187	16.824	75.548	1.914	14.720	71.224	5.886
3	.522	4.012	79.559				
4	.473	3.640	83.200				
5	.419	3.222	86.421				
6	.346	2.661	89.083				
7	.291	2.237	91.320				
8	.255	1.964	93.283				
9	.237	1.822	95.106				
10	.197	1.516	96.622				
11	.176	1.351	97.973				
12	.146	1.126	99.099				
13	.117	.901	100.000				

Note. Extraction Method: Maximum Likelihood; *When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Figure N1.

Scree Plot Depicting Factors of the National Identity Measure on the basis of Eigenvalues

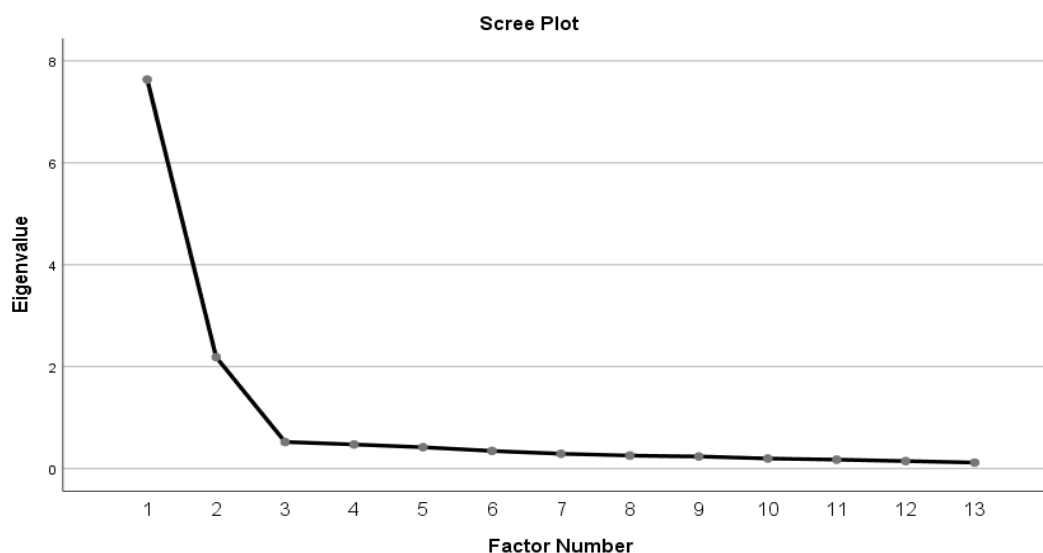


Table N2.*Total Variance Explained for the Social Intelligence Measure*

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		Cumulative %	Rotation Sums of Squared Loadings*
	Total	% of Variance	Cumulative %	Total	% of Variance		Total
1	6.888	36.252	36.252	6.472	34.062	34.062	5.484
2	3.922	20.643	56.895	3.658	19.254	53.316	4.790
3	2.685	14.130	71.025	2.321	12.215	65.531	4.284
4	.636	3.349	74.374				
5	.593	3.121	77.495				
6	.536	2.819	80.314				
7	.481	2.530	82.844				
8	.460	2.423	85.268				
9	.416	2.188	87.456				
10	.359	1.890	89.346				
11	.327	1.724	91.070				
12	.310	1.634	92.703				
13	.283	1.489	94.192				
14	.258	1.355	95.548				
15	.214	1.128	96.676				
16	.204	1.071	97.747				
17	.173	.913	98.660				
18	.154	.808	99.469				
19	.101	.531	100.000				

Note. Extraction Method: Maximum Likelihood. *When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

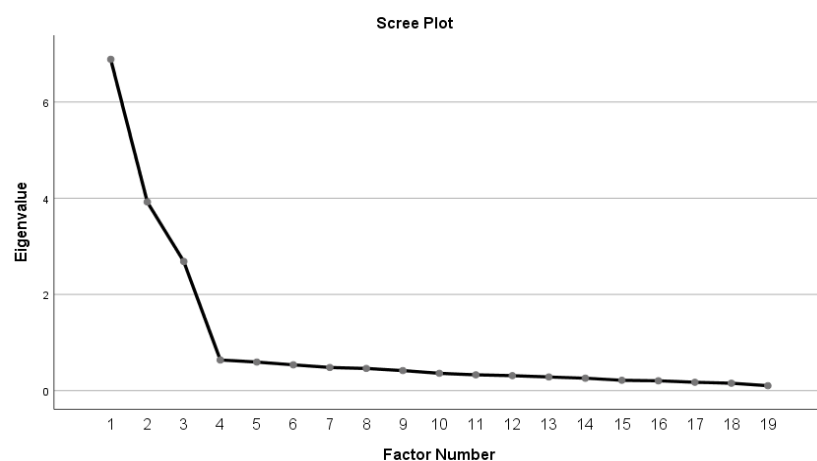
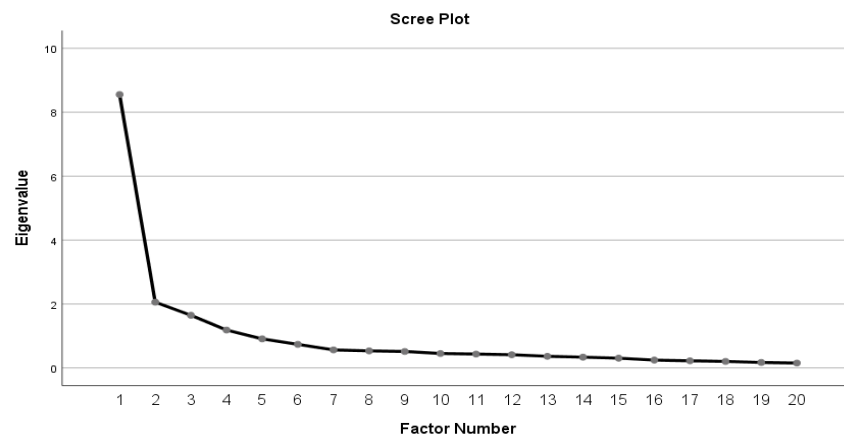
Figure N2.*Scree Plot Depicting Factors of the Social Intelligence Measure Based on Eigenvalues*

Table N3.*Total Variance Explained for the Cultural Intelligence Measure*

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings*
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	8.555	42.774	42.774	8.131	40.655	40.655	5.742
2	2.058	10.292	53.066	1.665	8.327	48.983	5.907
3	1.646	8.232	61.298	1.246	6.231	55.214	6.198
4	1.185	5.923	67.221	.792	3.958	59.172	5.176
5	.909	4.545	71.766				
6	.737	3.683	75.449				
7	.564	2.821	78.270				
8	.534	2.668	80.938				
9	.514	2.568	83.506				
10	.451	2.254	85.760				
11	.434	2.171	87.931				
12	.412	2.062	89.992				
13	.364	1.819	91.812				
14	.337	1.685	93.497				
15	.306	1.528	95.025				
16	.245	1.226	96.251				
17	.223	1.115	97.367				
18	.203	1.014	98.380				
19	.171	.857	99.237				
20	.153	.763	100.000				

Note. Extraction Method: Maximum Likelihood; *When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Figure N3.*Scree Plot Depicting Factors of the Cultural Intelligence Measure Based on Eigenvalues*

Appendix O

Graphs and Tables for Assumptions Checking for the multiple Regression

Figure O1.

P-P Plot Depicting the Standardized Residual for the National Identity Measure

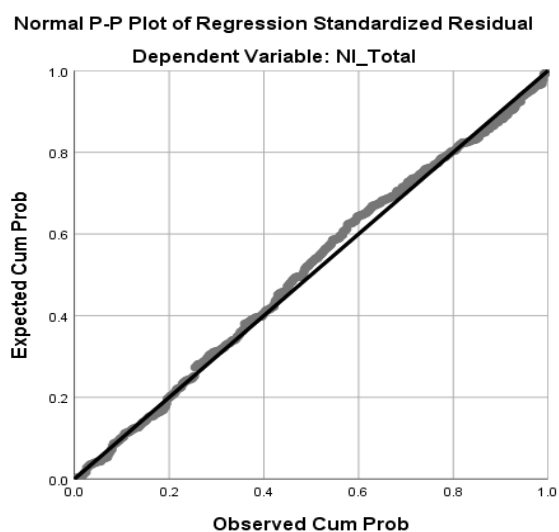


Figure O2.

Scatterplot of the Standardized Residuals for the National Identity Measure

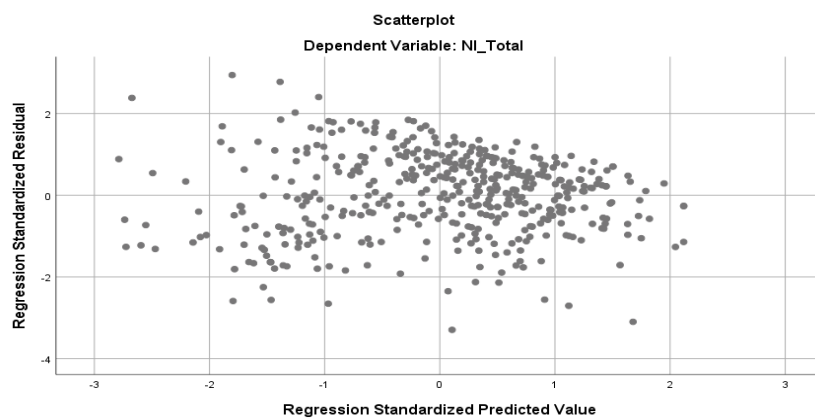
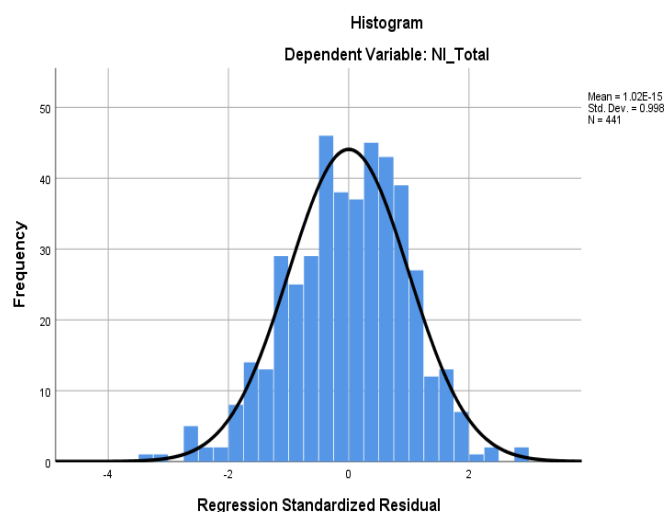


Figure O3.

Histogram Depicting the Standardized Residuals for the National Identity Measure

**Table O1.**

Residual statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	36.28	63.02	51.47	5.450	441
Std. Predicted Value	-2.788	2.118	.000	1.000	441
Standard Error of Predicted Value	.365	1.319	.600	.182	441
Adjusted Predicted Value	36.14	63.13	51.48	5.452	441
Residual	-25.054	22.355	.000	7.586	441
Std. Residual	-3.295	2.940	.000	.998	441
Stud. Residual	-3.301	2.959	.000	1.002	441
Deleted Residual	-25.139	22.637	-.002	7.645	441
Stud. Deleted Residual	-3.339	2.985	.000	1.004	441
Mahal. Distance	.019	12.249	1.995	1.976	441
Cook's Distance	.000	.071	.003	.006	441
Centered Leverage Value	.000	.028	.005	.004	441

Note. Dependent Variable = national identity.

Table O2.

Casewise Diagnostics for the National Identity Measure

Case Number	Std. Residual	NI	Predicted Value	Residual
47 (ASTU093)	-3.295	27	52.05	-25.054
299 (DDU160)	-3.099	37	60.62	-23.560

Note. NI = national identity; Dependent variable = national identity.

**Social Intelligence and Cultural Intelligence as Predictors of National Identity
among Undergraduate Public University Students of Ethiopia**

A Dissertation Submitted to the School of Psychology in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy in Applied Social
Psychology

By

Dawit Demlie Messay

Email: dawitd344@gmail.com

Supervisor

Tamirie Andualem Adal (PhD), Associate Professor of Psychology

Addis Ababa University
College of Education and Language Studies
School of Psychology

June 2025

Addis Ababa, Ethiopia

Addis Ababa University
College of Education and Language Studies
School of Psychology

**Social Intelligence and Cultural Intelligence as Predictors of National Identity
among Undergraduate Public University Students of Ethiopia**

A Dissertation Submitted to the School of Psychology in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy in Applied Social
Psychology

By

Dawit Demlie Messay

Email: dawitd344@gmail.com

June 2025

Addis Ababa, Ethiopia

Declaration

I, the undersigned, hereby declare that the PhD dissertation entitled “*Social Intelligence and Cultural Intelligence as Predictors of National Identity among Undergraduate Public University Students of Ethiopia*”, conducted and submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Applied Social Psychology to the School of Psychology, College of Education and Behavioral Studies, Addis Ababa University, is an original work carried out by the researcher. It has not been submitted to this or any other institution for a similar academic purpose. All sources and materials used in the dissertation are properly acknowledged.

Name: Dawit Demlie Messay

Signature _____ Date _____

Addis Ababa University
College of Education and Behavioral Studies
School of Psychology

I hereby confirm that I have supervised the PhD dissertation entitled “*Social Intelligence and Cultural Intelligence as Predictors of National Identity among Undergraduate Public University Students of Ethiopia*” by Dawit Demlie Messay. The dissertation has reached its current form by incorporating comments provided at various stages of evaluation, including the early synopsis, proposal development, piloting, and upgrading defenses. I recommend that this final dissertation be accepted for evaluation.

Name: Tamirie Andualem Adal (PhD) Signature _____ Date _____

Addis Ababa University
College of Education and Language Studies
School of Psychology

Social Intelligence and Cultural Intelligence as Predictors of National Identity among
Undergraduate Public University Students of Ethiopia

Approved by the Board of Examiners

1. Supervisor

Name: _____ Signature _____ Date _____

2. Chairperson

Name: _____ Signature _____ Date _____

3. Internal Examiner

Name: _____ Signature _____ Date _____

4. External Examiner

Name: _____ Signature _____ Date _____

Table of Contents

Contents	Page
Title Page	i
Declaration	ii
Advisor Approval	iii
Board of Examiners Approval	iv
Table of Contents	v
List of Tables	ix
List of Figures	x
Acronyms and Abbreviations	xi
List of Publications from this Dissertation	xii
Abstract	xiii
Acknowledgement	xiv
CHAPTER ONE	1
Introduction	1
1.1. Background	1
1.2. Statement of the Problem	6
1.3. Objectives of the Study	13
1.3.1. Tangential Objective	13
1.4. Research Questions	13
1.4.1. Tangential Research Question	14
1.5. Significance of the Study	14
1.5.1. Theoretical Significance	14
1.5.2. Empirical Significance	15
1.5.3. Practical Significance	15
1.6. Delimitation	16
1.7. Limitations of the Study	17
CHAPTER TWO	19
Review of Related Literature	19
2.1. Conceptual and Theoretical Review	19
2.1.1. National Identity	19
2.1.2. Social Intelligence	24
2.1.3. Cultural Intelligence	27

2.2. Review of Empirical Studies	37
2.2.1. National Identity	37
2.2.2. Social Intelligence	39
2.2.3. Cultural Intelligence	40
2.3. Review of Methodological Approaches	42
2.3.1. National Identity	42
2.3.2. Social Intelligence	45
2.3.3. Cultural Intelligence	48
2.4. Theoretical Framework	51
2.4.1. Theory of Social Identity	51
2.4.2. Triarchic Theory of Intelligence	53
2.4.3. Integrating the Theories	55
2.5. Conceptualizations	57
2.5.1. Conceptualization of National Identity	57
2.5.2. Conceptualization of Social Intelligence	58
2.5.3. Conceptualization of Cultural Intelligence	59
2.6. Operationalizations.....	61
2.6.1. Operationalization of National Identity	61
2.6.2. Operationalization of Social Intelligence	63
2.6.3. Operationalization of Cultural Intelligence	64
CHAPTER THREE	66
Methodology	66
3.1. Research Paradigm.....	66
3.2. Research Design.....	66
3.3. Study Population	67
3.4. Participants of the Study.....	68
3.5. Study Area	69
3.6. Sample Size.....	70
3.7. Sampling.....	73
3.8. Instruments	75
3.8.1. National Identity	75
3.8.2. Social Intelligence	77
3.8.3. Cultural Intelligence	77
4.8.4. Social Desirability Responses.....	78

3.9. Instruments Adaptation, Translation, and Content Assessment Processes.....	79
3.10. Reliability and Validity of the Instruments.....	81
3.10.1. Reliability.....	81
3.10.2. Validity.....	83
3.11. Data Analysis	87
3.12. Overall Research Procedure.....	89
3.13. Ethical Considerations.....	92
CHAPTER FOUR	93
Results.....	93
4.1. Results of the Pilot Study	93
4.1.1. Checking for Outliers.....	94
4.1.2. Assessing Normality	95
4.1.3. Exploratory Factor Analysis.....	98
4.1.4. Confirmatory Factor Analysis	110
4.1.5. Measurement Equivalence of the Two Language Versions.....	119
4.1.6. Intercorrelations among Variables.....	126
4.2. Lessons Learned from the Pilot Study and Recommendations for the Main Study.....	128
2.3. Results of the Main Study	129
4.3.1. Demographic Information and Descriptive Statistics Results	129
4.3.2. Confirmatory Factor Analyses Results.....	130
4.3.3. Results of Students' Level of National Identity, Social and Cultural Intelligence	137
4.3.4. Results of the Correlation between National Identity and Social and Cultural Intelligence.....	137
4.3.5. Results of Multiple Regression.....	139
CHAPTER FIVE.....	151
Discussion	151
5.1. Instruments' Validations	151
5.1.1. The Amharic Version of the Ethiopian National Identity Measure.....	151
5.1.2. The Amharic Version of the Social Intelligence Measure	153
5.1.3. The Amharic Version of the Cultural Intelligence Measure	155
5.1.4. Measurement Equivalence of the Amharic and English Language Versions of the National Identity Measure	157
5.2. The Levels of National Identity, Social Intelligence and Cultural Intelligence among Students in Ethiopian Public Universities	161

5.3. Relationships among National Identity, Social Intelligence and Cultural Intelligence among Ethiopian Public University Students	164
5.4. Contributions of Social and Cultural Intelligence in Predicting National Identity	167
CHAPTER SIX	170
Summary, Conclusion, and Recommendations	170
6.1. Summary	170
6.2. Conclusion	172
6.3. Recommendations	176
6.3.1. Practical Recommendations	176
6.3.2. Research Recommendations	178
6.3.3. Theoretical Recommendations	179
REFERENCES	181
APPENDICES	214
Appendix A	214
Appendix B	218
Appendix C	222
Appendix D	225
Appendix E	229
Appendix F	234
Appendix G	235
Appendix H	236
Appendix I	237
Appendix J	238
Appendix K	239
Appendix L	240
Appendix M	241
Appendix N	242
Appendix O: Graphs and Tables for Assumptions Checking for the Multiple Regression	245

List of Tables

Table 1: Distribution of Sample Participants and Questionnaires of the Main Study	71
Table 2: Reliability and Validity of the Measurement Scales	83
Table 3: Descriptive Statistics	97
Table 4: Factor Loadings of the Rotated Two–Factor Measure of the National Identity Construct	102
Table 5: Factor Loadings of the Rotated Three-factor Measure of the Social Intelligence Construct	105
Table 6: Factor Loadings of the Rotated Four-factor Measure of the Cultural Intelligence Construct	108
Table 7: Model Fit Indices and Acceptable Criteria.	119
Table 8: Standardized Regression Weights and proportion of variances of the Measure: Amharic [English].	121
Table 9: Model Fit Indices for the Adapted MEIM (Amharic, English)	122
Table 10: Goodness-of Fit Indices and Variations of Statistical Values of the MI for the Amharic and English Versions of the MEIM	123
Table 11: Pearson Correlation Coefficient between Factors and Variables.....	126
Table 12: Pearson Product-moment Correlations Between National Identity, Social Intelligence, Cultural Intelligence, and Social Desirability	127
Table 13: Students’ Level of National Identity, Social and Cultural Intelligence	137
Table 14: Variable Means, Standard deviations, and Pearson Correlation Coefficients	138
Table 15: Regression Statistics from Sequential Regression.	144
Table 16: Regression Statistics from Standard Multiple Regression.....	147
Table 17: Regression Statistics of Factors	149

List of Figures

Figure 1. Conceptual Model of the Study.	61
Figure 2. Measurement Model of the Two-factor National Identity Measure.	111
Figure 3. First-Order Measurement Model for Social Information Processing.	112
Figure 4. First-Order Measurement Model for Social Skill.	113
Figure 5. First-Order Measurement Model for Social Awareness.	114
Figure 6. Diagram of the Three-factor Social Intelligence Measurement Model.	114
Figure 7. First-Order Measurement Model for Cognitive CQ.	115
Figure 8. First-Order Measurement Model for Behavioral CQ.	116
Figure 9. First-Order Measurement Model for Motivational CQ.	116
Figure 10. First-Order Measurement Model for Metacognitive CQ.	117
Figure 11. Diagram of the Four-factor Cultural Intelligence Measurement Model.	118
Figure 12. Measurement Model of the National Identity Construct	132
Figure 13. Measurement Model of the Social Intelligence Construct.	134
Figure 14. Measurement Model of the Cultural Intelligence Measure	136

Acronyms and Abbreviations

AAU	Addis Ababa University
AMOS	Analysis of Moment Structures
APA	American Psychological Association
ASTU	Adama Science and Technology University
AVE	Average Variance Extracted
CFA	Confirmatory Factor Analysis
CQ	Cultural Intelligence
CQS	Cultural Intelligence Scale
CR	Composite Reliability
CVR	Content Validity Ratio
CVI	Content Validity Index
DDU	Dire Dawa University
EFA	Exploratory Factor Analysis
HEIs	Higher Education Institutions
IBM	International Business Machines Corporation
IVs	Independent Variables
KMO	Kaiser–Meyer–Olkin
MEIM	Multigroup Ethnic Identity Measure
MEIM–R	Multigroup Ethnic Identity Measure Revised
MI	Measurement Invariance
MoE	Ministry of Education
MR	Multiple Regression
NI	National Identity
SA	Social Awareness
SIT	Social Identity Theory
SIP	Social Information Processing
SI	Social Intelligence
SoE	Socioeconomic
SPSS	Statistical Package for Social Sciences
SSs	Social Skills
WkU	Wolkitie University
WU	Wollo University

List of Publications from this Dissertation

- Demlie, D., & Andualem, T. (2024). Validation of the Tromsø Social Intelligence Scale (TSIS) in the Ethiopian context. *Ethiopian Journal of Behavioral Studies*, 7(2), 141–180. <https://doi.org/10.20372/ejobs.v7i2.10612>
- Messay, D. D., & Adal, T. A. (2025). Measurement invariance of English and Amharic language versions of the Multi-group Ethnic Identity Measure (MEIM). *Ethiopian Renaissance Journal of Social Sciences and the Humanities*, 12(1), 193–217. <https://doi.org/10.4314/erjssh.v12i1.10>
- Messay, D. D., & Adal, T. A. (2025). Social intelligence and cultural intelligence as predictors of national identity among public university students of Ethiopia. *Romanian Journal of Applied Psychology*, 27(1), 28–38. <https://doi.org/10.2478/rjap-2025-0004>
- Demlie, D., & Andualem, T. (in press). Adaptation and validation of the Multigroup Ethnic Identity Measure (MEIM) to the Ethiopian national identity measure. *Abyssinia Journal of Business and Social Science*.

Abstract

This study aimed to examine whether national identity (NI) is influenced by social intelligence (SI) and cultural intelligence (CQ) in the university setting of Ethiopia, targeting senior undergraduate students. It was conducted in two phases: a pilot study and a main study. The pilot study primarily focused on validating the psychometric properties of the instruments used to measure the constructs. Senior students ($n = 343$) enrolled in full-time undergraduate programs at DDU and WU participated in this phase. By employing exploratory factor analysis (EFA) and confirmatory factor analysis (CFA), the factor structure, relationships between observed and latent variables, model fit, reliability, and validity were examined. Measurement invariance (MI) between the Amharic and English versions of the NI measure was assessed to ensure that the translated version conveyed the same meaning as the original MEIM and to determine which version was more suitable for use in the main study. A total of 286 participants were assigned to the English version group. The assumptions of MI were met. The pilot study results demonstrated that the Amharic versions of the tools were both reliable and valid for measuring the constructs among public university students. In the main study, 441 students were randomly selected from four universities—ASTU, DDU, WkU, and WU—and participated in the research. The validated instruments were used to collect the data. Pearson correlation analysis was employed to explore the degree of association between the variables and to verify the existence of linear relationships prior to testing the predictive model. Social intelligence was found to be positively correlated with NI ($r = .49, p < .01$), and CQ was also positively correlated with NI ($r = .58, p < .01$), indicating that students with higher SI and CQ are likely to possess a stronger sense of NI. Additionally, SI was positively correlated with CQ ($r = .72, p < .01$), suggesting that students with greater SI may also exhibit higher CQ. The extent to which the key predictor variables contributed to NI, after controlling for demographic variables, was also examined. The overall model was statistically significant, $F(7, 393) = 99.604, p < .05$. However, the demographic variables did not significantly predict NI, $F(5, 395) = 1.903, p > .05$. Cultural intelligence demonstrated greater predictive power ($\beta = .448, t = 7.620, p < .001$) compared to SI ($\beta = .164, t = 2.785, p < .01$). This study introduced a new framework of inquiry, revealing that both SI and CQ significantly influence NI. The findings highlight the need for researchers and stakeholders to pay greater attention to this issue, both to advance social-cognitive studies and to foster unity and peaceful coexistence.

Acknowledgement

First and foremost, I am incredibly grateful to the Almighty God for the blessing of strength throughout this difficult journey. Next, I thank my supervisor, Dr. Tamirie Andualem Adal, for his invaluable support and cooperation over the years. I deeply appreciate his extensive and insightful critiques throughout the course of this work and his unwavering commitment to maintaining high academic standards. I truly enjoyed our engaging discussions. I am also thankful to the anonymous reader for their dedication in reviewing my initial proposal and providing essential comments that laid the foundation for the present work. Their input was crucial in refining and reshaping the proposal, which initially suffered from an unfocused problematization and an unclear methodological approach.

My sincere appreciation goes to Professor Habtamu Wondimu, Dr. Daniel Tefera, Dr. Dawit Mekonnen, and Dr. Berhan Wondimu for their significant contributions, including critical reviews during the proposal evaluation and upgrading defense stages. Special thanks are due to the experts and colleagues who greatly assisted me during the adaptation, translation, and content validity assessment phases of the instruments, as well as in the fieldwork. These include Dr. Biniam Atnafe, Dr. Esayas Teshome, Dr. Ephrem Belete, Dr. Admasu Abebe, Dr. Galata Sitota, Dr. Taglo Kassa, Tesfaye Desalegn, Shumye Molla, Habtamu Fikrie, Eyob Nega, Wondu Teshome, Mulatu Desalew, and Melaku Ashagrie. A special acknowledgment to Tadesse Abebe for his invaluable help during data collection at WkU. His life was tragically cut short while on duty. May he be remembered with honor. I am deeply grateful to Dr. Teka Zewudie, Professor Tilahun Sineshaw, and Dr. Silesh Zeleke for the meaningful roles they have played in my academic journey. My heartfelt gratitude goes especially to Mengistu Desalegn (Mengie)—without your unwavering support and invaluable contributions, this study could not have been initiated or completed. I extend sincere thanks to all study participants for their time and willingness to contribute.

Last but not least, I want to express my deepest gratitude to my family for their unwavering support. I especially thank my late Mom, who, despite her limited education, instilled in me a passion for learning and optimism, emphasizing the ‘beauty’ of intellectual and scientific engagement beyond personal gain. You put up a sign on my heart. My only allegiance is to you. I never bid farewell because I have never believed you were gone. Your influence remains with me, and I continuously connect with you. Next, to my second Mom, Ethiopia Belachew, you are priceless beyond measure. An inexpressible “Thank you” goes to my beloved wife, Eden Fiseha (Mesi), for your incredible patience, for deliberately

diminishing your own importance to promote my goals, and for having my back throughout this demanding study. When I was compelled to leave all roles—including that of a husband—vacant for you, you took them on and carried them out unconditionally, with love, patience, and persistence. You endured so much, leaving no stone unturned to give me a sense of security. Your strength and resilience were unmatched. I very much owe you. Though words fall short, this achievement is truly yours. Ultimately, I would like to thank my brother, Abiy Wassihun, for keeping me grounded and for showing me what truly matters in life. Your presence, especially during tough times, has demonstrated the essence of brotherhood. Thank you for tolerating my complaints, even when they raised a few eyebrows. My little one, Eyob (Dotit), thank you for assisting me during the data encoding for both phases of the study, crossing hundreds of kilometers. Alex, thank you for your technical support.

CHAPTER ONE

Introduction

1.1. Background

The social groups with which people identify themselves are key determinants of many aspects of people's thoughts, feelings, and social behavior. In the same way, individuals' thoughts, emotions, and behaviors affect group membership and relationships. People have always had mental models of the self as group members and of groups as sources of identity and esteem. National identity, as a part of social identity, is thus influenced by both internal and external factors.

National identity, from the social psychology viewpoint, is considered one of the multiple forms of social identity that are created by the social psychological processes of individuals over time. Social identity highlights the fact that many of the categories, such as groups, teams, or societies, refer to existing or imagined social collectives and therefore give rise to perceptions of belonging, togetherness, and "we-ness" on the basis of "the similarities or shared attributes around which group members coalesce" (Cerulo, 1997, p. 386).

According to Tajfel and Turner (1986), national identity is based on an individual's perceived membership in a nation or nation-state. It is a multidimensional construct that includes cognitive, affective, and evaluative components related to one's country. The prominent studies that have been mentioned as most useful for understanding the nature of human attachment to a nation and to see groups extendedly as a nation are Tajfel's studies (Nigbur & Cirinnella, 2007; Smith et al., 2005). Consequently, understanding national identity from the social psychological perspective implies social categorization processes, for example, understanding the self as belonging to and being constituted by some socially defined category (Hogg & Reid, 2006).

The terms "nation" and "nationality" within the current context of Ethiopia refer to different ethnic groups that make up the federal state of Ethiopia. These ethnic groups are constitutionally entitled to govern themselves and their affairs with maximum rights up to secession, with some stipulated processes. The existing ethnic federalism structure of Ethiopia has influenced the country's geopolitical, social, and education policies and has been blamed for making "all things along ethnic and linguistic lines." One of the most commonly discussed aspects of the system by elites and politicians is that it officially acknowledges multiculturalism and respects the liberal values of diversity, tolerance, and recognition of minority groups.

Nonetheless, its practical application is criticized for contributing to the negative results of ethnic conflicts and social crises among groups. Fisseha (2016) reported that Ethiopia's ethnic federalism has brought about ethnic conflicts and social unrest among different ethnic groups. The system has exacerbated the conflict and divisions that previously existed because students primarily learn about their locality and ethnicity instead of their Ethiopian national identity (Dessalegn & Meherat, 2004). Considering this situation, people say that the greater Ethiopian national identity is deteriorating.

Social psychology researchers, however, have argued that individuals' relationships in a group should not be considered expressions of identity, stating that group identification is sometimes different from members' relationships (e.g., Huddy et al., 2021; Karasawa, 1991), although ingroup ties and positive relationships can be important factors for social identity categorizations. Moreover, scholars have argued that individuals can have multiple forms of identities, preferring to maintain exclusive ethnic, national, or both identities (Verkuyten & Martinovic, 2012), although they are not equally strong (Simon & Grabow, 2010; Simon & Ruhs, 2008). The general notion is that, because members enter into conflict, they do not show the absence or weakness of national identity. This is one of the ideas that fueled the

present research. Ethiopian national identity is presented as a "weak" identity because of the conflicts and clashes seen in universities. People from this camp claim that essential factors that help maintain a strong national identity have diminished, as students lack the elemental behavioral characteristics of collective identities such as reverence, understanding, tolerance, appreciation, recognition, and adaptability, which are also essential for peaceful coexistence.

It is partly to test this deliberation empirically and shed some light on the debate over Ethiopian national identity by examining young students' level of national identity in this mystifying situation of the country. Examining its association with social and cultural intelligence constructs can also be valuable to the area in general and to the population in particular, contributing to theoretical, empirical, and practical accounts.

On the other hand, the growing curiosity and interest in exploring and discovering 'new intelligence', unlike the earlier research tendency of viewing intelligence narrowly as the ability to grasp concepts merely and solve problems in academic settings, has identified new forms of intelligence that focus on specific domains, such as cultural intelligence (Earley & Ang, 2003), practical intelligence (Stenberg et al., 2000; Wagner & Sternberg, 1985), emotional intelligence (Bar-On, 2000; Mayer & Salovey, 1993), fluid and crystallized intelligence (Cattell, 1987), and social intelligence (Thorndike & Stein, 1937, cited in Weis & SuB, 2005). Although its inception dates back to the 1920s, social intelligence has become a relevant area of study that has attracted the attention of many researchers (e.g., Boyatzis, 2009; Boyatzis et al., 2014; Durlak et al., 2011; Honeywell, 2015; Zautra et al., 2015, 2016).

Social intelligence is viewed as a type of intelligence that refers to people's capacity to understand others and behave accordingly in relationships. A comprehensive definition of social intelligence (SI) given by Moss and Hunt (1927, p.108, cited in Lacanlale, 2013) reads as "the ability to get along with others" (p, 263). Additionally, Honeywill (2015) described

social intelligence as "the capacity to navigate complex social relationships and environments" (p. 6).

Individuals inherently need to adjust themselves to others in the group with which they identify. However, such adjustments and the subsequent maintenance of positive social relations in a diversified nation are not always easy, as they include meeting differences and conflicting views. This substantially requires a specific type of intelligence—social intelligence—the ability to effectively manage personal and societal situations by identifying commonalities and developing realistic but flexible coping strategies. In the processes of exploring, finding out, building, and maintaining commonalities with the groups we live in with, individuals' social intelligence is assumed to be an important factor in this study because it influences our relationships and the subsequent identity definition by utilizing our ability to understand and manage others in the group in which we reside. This involves finding common identities and ascribing meanings to an individual's membership. In support of the assumption of the present study, Lacanlale (2013) noted the following:

Man needs to become adaptive and flexible in dealing with others to develop healthy and smooth relationships. He needs to develop and possess the capacity and ability to understand and manage other people. He needs to know how to operate and handle various situations, and he should have an idea about the social environment in which he is interacting. To respond to these needs, man's social intelligence is deemed important (p. 263).

Because national identity (NI) is the feeling of unity, cohesion, collective belonging to a particular nation, and a sense of commitment and loyalty to a nation (Smith, 1992), in the current study, it is hypothesized that social intelligence is a key factor for national identity on the basis of the aforementioned underlying elements of the construct (i.e., adaptability, flexibility, social skills, social awareness).

Cultural intelligence (CQ), on the other hand, is a specific form of intelligence that focuses on the ability to grasp, reason, and behave effectively in situations characterized by cultural diversity (Ang et al., 2007; Charles & Trompenaars, 2006). These capabilities of individuals include the acceptance of a certain degree of cross-cultural confusion, the suspension of a judgment of cultural values, and a desire to understand cultural differences (Brislin et al., 2006). As a form of intelligence, compared with other intelligence types, such as social or emotional intelligence, cultural intelligence (CQ) refers to people's ability across cultures widely. Instead, other types of intelligence tend to focus on a particular feature of an individual's ability in a single cultural context.

Earley and Ang (2003) revealed that CQ is a multidimensional construct that comprises metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ. These dimensions, which differ qualitatively, contribute to national identity because they are capable of functioning effectively in culturally diverse settings and managing differences successfully. Students with higher CQ will be able to determine things in common and respect differences resulting from cultural backgrounds. This is an important element for smooth interaction and peaceful coexistence for a nation and its people. As Semela (2012) noted, "a multicultural state should be able to avert mutual mistrust and eventual intergroup conflict to survive and emerge viable" (p. 324).

Like SI, CQ is assumed to be another important construct for predicting national identity in this research because it involves the ability to interact and behave effectively among people who are culturally different in a nation. It contributes to the subsequent sense of collective identity that people (or members) can have or ascribe to. In other words, groups that comprise people with higher levels of CQ can function effectively because there will be a better understanding of each other, celebrating commonalities and respecting differences.

In summary, because smooth interactions, understanding, respect, acceptance, and adaptability are core elements of collective identity, examination of the ability of the two intelligence constructs to predict national identity is admissible. It can have theoretical and empirical significance for other studies. It is also deemed to have practical importance for peaceful coexistence in the Ethiopian public university setting, which is a place where the diverse nature of the country is vividly visible. According to the Ministry of Education of Ethiopia, higher education institutions (HEIs) continue to be the center of diversity in students' religion, language, and ethnicity (MoE, 2011). Given the splendid findings of Ethiopian public universities and students, examining the problem in this population of the study by itself could be justifiable and relevant. Hence, it is imperative that the present study focused on public university students.

1.2. Statement of the Problem

Studies of how individuals relate to nations or how nation-states are composed have been at the center of researchers' attention (e.g., Bellamy, 2008; Cerulo, 1997; Hart et al., 2011; Hutchinson, 2019; Shulman, 2002; Woods & Debs, 2013; Storm, 2022). These studies, however, have focused primarily on examining how individuals identify with the ideological, institutional, and political structures of nations. They are more inclined to investigate external factors, such as political ideology, for national identity, giving less emphasis to the construct, which can be influenced by intrapersonal, interpersonal, and societal factors, as one form of social identity. Most recent works on collective identity have even been done (and have become more salient) at the microlevel of ethnic identities. Such studies are useful and can be connected to national identity investigations but are not always trouble-free.

Following the restructuring of the political system of ethnic federalism in Ethiopia, the trajectory of ethnic conflicts has been shown to rise and has left the country's stability under serious concern, although there are competing claims for and against the system. In the last

two and more decades, conflicts attributed to negative ethnic relations have been mentioned as major factors contributing to the loss of many lives in different parts of Ethiopia (Besha, 2020; Fisseha, 2016; Taye, 2017). In particular, most Ethiopian public universities in the past few years have encountered harmful practices, including brutal killings among students.

From a political lens, the system has been blamed for seriously affecting interethnic relationships, resulting in a decline in social cohesion, the rise of 'narrow nationalism', and ethnic conflicts in universities (e.g., Fisseha, 2016). Ethiopian public universities continue to experience challenges concerning ethnic and religious conflicts, which result in interruptions of academic activities, injuries, and even deaths (Adamu, 2023). By observing conflicts and clashes in and outside universities and ethnic salience in Ethiopia, a significant number of people claim that Ethiopian national identity is diminishing or near extinction. However, social psychology scholars argue that group identity may not be measured in terms of members' relationships, as stated in the background section.

The present research has not ruled out the possible influence of those aforementioned political and structural issues to have contributed to the presence of a more ethnically salient atmosphere and its negative consequences in Ethiopia. The existing system could also play a role in contributing to conflicts. The crux is that the decline in Ethiopian national identity has not been adequately investigated from a social psychology perspective, particularly in HEIs. Some studies conducted at universities have tried to show the erosion of Ethiopian national identity among a few ethnic groups because ethnonationalism is growing (e.g., Ishiyama & Basnet, 2022). They have claimed that ethnic identity is more important than Ethiopian national identity to these groups.

The gap in such studies is that, in the context of present-day Ethiopia, an individual can consider both an Ethiopian nationality and a member of a specific ethnic group. In that sense, there will be a dual identity. The two identities may not have an equal magnitude of

identification at a time at a point. Although it is sometimes possible to understand a construct better by considering the conspicuous of its opposite and/or corresponding concepts, drawing a valid inference is not always unproblematic. Moreover, the comparison between two identities cannot reveal the tenacious presence of one and the sympathetic decline of the other, given that the two identities are not mutually exclusive. It only indicates the greater salience of one over the other. The general argument of the present research is that given the prominent state of ethnic identity, Ethiopian national identity also needs to be separately examined from the social psychology perspective for a sound conclusion.

Furthermore, nations comprise complex social, political, and cultural groups, including close and conflicting relationship groups, as a societal environment that consists of human beings. These groups and subgroups considerably matter in the definitional process that other fellows give to themselves and their group identities. In this context, SI, for example, can play a significant role by helping individuals understand the complexity and subtlety of both individual and group behavior. It is also essential to evaluate both individuals and groups and to manage the environment and the group with which we identify. With low levels of SI, it will be challenging to explore and determine the commonalities that are embedded in the group by creating an enabling environment for the group to function and be viable. For that reason, some scholars (e.g., Habib et al., 2013; Sternberg, 2004) described SI as an individual's bank of knowledge regarding the social matters of society. Indeed, national identity is a social matter. Research evidence shows that university students tend to have higher levels of SI (e.g., Alkhaldi & Alkhutaba, 2018; Omogbai & Jesuorobo, 2024; Uygun & Aribas, 2020). Students with better SI were found to have a better understanding of others and the ability to respect social values and common identity expressions (e.g., Windari, 2021).

Similarly, CQ is one of the latest contributions to intelligence and is often studied alongside other types of intelligence, including emotional and social intelligence (Idrus,

2021). Like that of SI, CQ is assumed in the present study to contribute to the prediction of national identity among young public university students in Ethiopia because it is the ability to function effectively in culturally diverse settings. Studies have shown that culturally diverse nations have higher levels of nationalism than do homogeneous nations (Robinson, 2009). Subramaniam et al. (2011) reported that CQ is key for cross-cultural adjustments. According to Harrison and Brower (2011) and Idrus (2015), students with high CQ faced fewer problems in cross-cultural adjustments and were able to cope with societal problems. University students were also found to have better CQ (Senel, 2020; Sousa, et al., 2023; Teneta-Skwiercz, 2022).

Correspondingly, research has indicated that social identity facilitates individuals' adjustment to their surroundings (e.g., Simon, 2004; Vignoles et al., 2006). Additionally, it has been identified as a contributor to overall wellbeing (Haslam et al., 2009; Inzlicht & Kang, 2010; Vignoles et al., 2006). Moreover, social relationships in schools were found to be important predictors of national identity. Positive relationships between students statistically predict stronger national identity (Ziemes et al., 2021). These findings provide empirical support for the present study's argument and the assumption provided by the relationships among NI, SI, and CQ. The SI and CQ constructs, specifically, capabilities of adaptability, flexibility, social skills, social awareness, reverence, understanding, tolerance, appreciation, and recognition, which are also essential factors for national identity, have not been examined. The associations of these intelligence constructs with national identity have not been investigated. Therefore, the present study examined SI and CQ as predictors of NI from the social psychology perspective.

To the best of the researcher's knowledge, similar investigations in Ethiopia have not been widely reported. However, Keller's and Omwami's (2007) investigation of the perception of the national identity of Ethiopians, which is the closest study to the present inquiry, revealed no

contradictions with their ethnic identities, but differences in the degree of identification among ethnic groups were found. Ethiopia is a diverse country with over 80 different ethnicities and nationalities; each has its own distinct language, culture, and traditions. The interplay of human-to-human interactions is considered essential for the existence of a larger society. University students' societal and cultural values, in this regard, cannot be seen as different from those of the general society.

Higher Education Proclamation No. 650/2009 of the Federal Democratic Republic of Ethiopia (FDRE) stated that one of the objectives of HEIs is to promote democratic culture and uphold multicultural community life (FDRE, 2009). As an element of ensuring positive learning outcomes for all students, the proclamation instructs that HEIs are expected to develop and disseminate a culture of respect, tolerance, and living together. Against this background, the trends of the last three decades have shown that universities have been experiencing diversity-related conflicts among students. However, universities react to those incidents and conflicts after a certain degree of damage and destruction is encountered. Despite acknowledging its disastrous impact and reporting the political issues assumed to be the causes, adequate attention has not been given to other social psychological variables that could have had a triggering effect on the problem.

Examining the associations among NI, SI, and CQ would provide important insights and implications for mitigating conflicts and promoting diversity and solidarity. According to Windari (2021), national identity can moderate the impact of ethnic conflicts if members of a nation-state with high ethnic diversity also have a stronger sense of national identity. National identity is useful for developing and maintaining empathy and solidarity among the fellow populace; as Guibernau noted, "National identity fosters closeness, empathy and solidarity among fellow nationals" (Guibernau, 2007, p. 170). This would help create harmony and strengthen solidarity among fellow nationals of a country by uniting the diverse members of

the nation. Therefore, such an investigation is vital because the constructs have not been adequately investigated in the context of Ethiopian public universities to the best of the researcher's knowledge. Moreover, their association (and contribution) with collective identities has not been examined.

In conclusion, from the extant literature review, most studies on the problem have focused predominantly on the results of ideological narratives, political phenomena, and rhetoric polemics on individuals in terms of their expression of collective identities (e.g., Besha, 2020; Finneran, 2003; Gebrewold, 2009; Gudina, 2003, 2004; Teferi, 2012; Vaughan, 2003; Yusuf, 2019). They have neglected the social psychological perspective of social identity on the identification of oneself with a nation and in intergroup relationships. To the best of the researcher's knowledge, the underlying social psychological factors of social identity have not been adequately investigated and explained.

In interdisciplinary studies in psychology and political science disciplines, the social psychological factors associated with national identity have not been seriously examined. Therefore, instead of glossing over the concept as mere loyalty to a group, facilitated and shaped by more politically attributive elements, and as mere emotional attachment to its defined nature, the current study examined whether identification with a nation could be predicted by SI and CQ constructs.

Given the limitations of the presumption of studies on identity that pronounced political ideology as a source of national identity (e.g., Espinosa et al., 2016), the current research did not include ideological and political factors assumed to be significant for the construction of national identity. It focused only on examining the correlation between NI, SI, and CQ. Consequently, the research hypothesized that the sense of belonging to, or identifying with, a nation underpins a social psychological process, apart from mere political manipulation,

keeping other factors constant. It is more of an acquisition than an imposition. This is one of the first major gaps that this study has identified and planned to fill.

The second major gap that this research seeks to fill is the lack of studies on the integration of the social and cognitive viewpoints of identity. The social cognitive perspective is normally an established knowledge domain in behavioral science. However, it has rarely been used for the examination and explanation of problems that comprise and significantly share the facets of social and cognitive elements. In this context, it is assumed in the present research that national identity is, to a large extent, socially, culturally, and historically constructed, as well as psychologically processed. Social intelligence and cultural intelligence are also constructs that significantly embrace both social and cognitive dimensions.

Third, most recent works have focused on ethnonationalism—some call it narrow nationalism. The importance of 'national identity' over 'ethnic identity', on the one hand, and the importance of 'ethnic identity' over 'national identity', on the other hand, has exhaustively been pointed out in many studies from different viewpoints. Irrespective of these debates, however, Ethiopia does not possess an ethnically homogeneous population—said to have been home to more than 80 officially recognized ethnic groups (CSA, 2008). Although students might be exposed to different narratives regarding Ethiopian identity, their actual sense of identification with and level of attachment, the meaning they give as members, the way they relate with other subgroups and fellow Ethiopians, and their ability to perceive and manage the social environment are equally important and need to be examined for a valid comparison and conclusion.

Therefore, the current research was planned to be conducted to shed some light on the aforementioned gaps. It could provide important insight into the explanation of national identity from the viewpoint of human intelligence, particularly in terms of SI and CQ. It would also help shed some light on the elucidation of social cognitive studies and further

investigations in this area. In addition to examining the capacity of SI and CQ to predict NI via data obtained from young students, this study also helps reveal young students' levels of NI, SI, and CQ. This, tangentially, provides insight to other researchers about youths' ability to get along with others and their ability to understand complex social relationships and to function in culturally diverse settings so that strategies and/or approaches can be designed.

1.3. Objectives of the Study

With the general aim of investigating social intelligence (SI) and cultural intelligence (CQ) as predictors of national identity (NI) among senior undergraduate students at Ethiopian public universities, this study pursued the following specific objectives:

- To validate the instruments measuring NI, SI, and CQ.
- To describe the participants' demographic accounts.
- To determine the levels of NI, SI, and CQ among students.
- To examine the correlations between NI, SI, and CQ.
- To examine whether SI and CQ predict NI, both with and without controlling for demographic variables, and to identify which of the two is the stronger predictor of NI.

1.3.1. Tangential Objective

- Investigate the language equivalence between the Amharic and English language versions of the MEIM.

1.4. Research Questions

- Are the adapted instruments for measuring national identity (NI), social intelligence (SI), and cultural intelligence (CQ) valid and reliable?
- What are the demographic characteristics of the participants?

- What are the levels of National Identity (NI), Social Intelligence (SI), and Cultural Intelligence (CQ) among students in Ethiopian public universities?
- How are NI, SI, and CQ related to one another among participants?
- Do SI and CQ predict NI after controlling for the effects of demographic variables, and which of the two is the stronger predictor?

1.4.1. *Tangential Research Question*

- Is there measurement invariance between the Amharic and English language versions of the MEIM?

1.5. Significance of the Study

Understanding national identity has long been one of the focus areas of researchers. As a scientific inquiry, the current research is also assumed to have theoretical, empirical, and practical significance.

1.5.1. *Theoretical Significance*

From a theoretical point of view, understanding NI from the social psychological perspective would have considerable importance for framework development. This could contribute to the existing theories by examining the construct's relationships with specific types of human intelligence, particularly SI and CQ. Specific to SIT, this study contributes to the understanding of the behavior and magnitude of collective identities and ingroup members' relationships in diverse contexts, such as Ethiopia.

It could also contribute to bridging various fields of study by providing a holistic understanding of how NI can be influenced by SI and CQ. In addition, this study contributes to social cognitive theory by presenting a tailored framework for understanding collective identities vis-à-vis intelligence, as intelligence has been still conceived as a mere cognitive ability by the majority, even by a significant number of the academic community.

1.5.2. Empirical Significance

This study can have empirical significance by shedding some light on the arguments regarding collective identity and relationships with members of the group (see Section 1.2 for more). The present study, therefore, could contribute to the literature by empirically examining the level of NI, focusing on student samples in public university settings. Consequently, Ethiopian national identity was not found to be low among the participants; thus, the argument that stated collective identity differs from members' relationship has received empirical support in the present study.

It can also contribute by providing quantitative data on the relationships among NI, SI, and CQ, filling empirical gaps in the current literature. Researchers in this area may use it as empirical evidence for further investigations on the problem. In addition, the study could be used for comparative analysis purposes, as it offers insights that can allow comparisons with findings from other nations and settings, contributing to a universal understanding of national identity and its dynamics. Afterward, this study presents valid and reliable measurement tools for NI, SI, and CQ that have undergone rigorous validation processes. This is one of the significant contributions to further investigations and researchers.

1.5.3. Practical Significance

In terms of practical importance, this study has several potential implications, such as program development, community engagement, and conflict resolution connotations. The findings could inform policymakers and HEIs about the importance of fostering SI and CQ in curricula and extracurricular activities to strengthen national identity. Understanding the interplay between NI, SI, and CQ is highly relevant to universities and relevant stakeholders in the education sector, such as government bodies (e.g., legislation & executives), civil society organizations working in the area of peacebuilding, and organizations that work to promote plurality and diversity.

Regarding the study's significance to universities, more particularly, knowledge of the level of NI, SI, and CQ provides important information for designing and developing intervention strategies for the advancement and proper utilization of attributes to promote social cohesion. Consequently, it is possible to mitigate conflicts in universities because of the inability to respect and/or tolerate differences among students from the same and/or different backgrounds. It is also possible to increase students' academic effectiveness by maximizing their SI and CQ, as previous studies have indicated.

It can transcendently be applied to civil society organizations (CSOs) as well. They can use this study as a source of information for peacebuilding initiatives in communities and intervention strategies to be carried out with youths and students by leveraging the strengths of SI and CQ. Entities that are interested in working to promote diversity and upholding plurality can also use it as a reference. This study can help provide insights into students' Ethiopian national identity level so that they can use it as a benchmark for drafting youth policies related to nationalities. These key stakeholders can benefit from this study.

1.6. Delimitation

This study aims to examine the ability of the two specific intelligence constructs to predict national identity among senior undergraduate students at Ethiopian public universities after the measures are subjected to robust validation. Although the dimension of identity is wide in its conceptual application, the present study is limited to investigating Ethiopian national identity from a social psychological perspective and examining its association with SI and CQ. It does not tread over ontological definitional or epistemological issues related to the use of 'nationalism' either.

Given the significant contribution of studies of ideology and politics for collective identities such as NI, the present study did not include structural elements and political systems associated with the expressions of collective identity. It also did not include students

in graduate, postgraduate, or nonregular (weekend, summer, and distance) programs. It focused only on senior regular undergraduate students. Hence, its results might not be indubitably generalizable to the former segments of the population.

The study was conducted at four public universities: ASTU, DDU, WkU, and WU. As a result, it might not yield an exhaustively conclusive result that would enable us to make generalizations for private universities, colleges, TVETs, etc.

1.7. Limitations of the Study

Despite the theoretical, practical, and empirical contributions this study offers, several limitations must be acknowledged. First, the study was conducted using a sample drawn from only four universities. As a result, the findings may lack broad generalizability to other populations, particularly those outside the university setting. Second, the study relied solely on quantitative methods and utilized standardized instruments adapted from other cultural contexts. This approach, while methodologically sound, may have limited the exploration of culturally specific attributes and nuances of the Ethiopian context that could be better captured through qualitative or mixed-methods research. Third, the use of cross-sectional data introduces potential limitations, including possible omission of relevant explanatory variables and an inability to establish causal relationships. Such methodological constraints may have affected the depth of the findings. Fourth, the study conceptualized the key variables of interest as having linear relationships and included only five demographic variables—age, sex, family SoE background, and original area of residence—as control variables. However, numerous other household, educational, and institutional factors may also be relevant, particularly as potential mediators or moderators, and could have enhanced the explanatory power and depth of the analysis.

Finally, a significant portion of the dissertation was dedicated to the validation of the instruments. This emphasis was based on the rationale that rigorous validation and transparent

reporting are crucial, especially when measuring complex constructs like intelligence and identity using self-report tools in a population where such instruments had not previously been applied. Nonetheless, this focus may have limited the scope available for in-depth analysis of the main study variables and could be viewed as a constraint.

In light of these limitations, readers and future researchers are encouraged to interpret the findings with caution and consider these factors when designing related studies in similar or broader contexts.

CHAPTER TWO

Review of Related Literature

In this review of the related literature, the subject matters of national identity, social intelligence, and cultural intelligence are presented. By giving more emphasis on the social psychological perspective, the review has focused mainly on the theoretical, conceptual, empirical, and methodological aspects of the constructs. The theoretical and conceptual frameworks of the study with operationalizations of the variables are also incorporated.

The method of review that was employed in this study was the narrative/traditional literature review method. The collection and use of materials were carried out via both manual and digital searches. However, digital materials that are found mainly in databases have been used predominantly. These materials used have been considerably in the last ten and twenty years. However, key literature from earlier years is also incorporated.

2.1. Conceptual and Theoretical Review

2.1.1. *National Identity*

The concept of identity began as a topic in traditional philosophy and logic, which Freud later integrated into psychological theory. Building on Freud's work, Erikson suggested that 'identity' represents a clear or ambiguous response to the question 'Who am I?' In Erikson's view of identity, identity is not only an individual aspect but also a collective and social one. Identity is the difference, character, and sense of belonging found in interpersonal interactions and interactions between groups (Erikson, 1994). It develops from self-perceptions that arise through the reflective process of categorizing oneself or identifying with specific groups or roles (Stets & Burke, 2000).

National identity has been one of the debatable issues in academic circles with the development of modern nationalism. There seem to be challenges of elusiveness in defining it (Assefa et al, 1996; Gudina, 2003). The most direct political product of modern nationalism is

the nation-state. According to Zheng (2004), any modern nation-state includes two important aspects. One is the nation-state system, and the other is the national identity of the inhabitants in the territory of the state. Culture, as a manifestation of the social attributes of human beings, is also an important medium affecting the identity of individuals and ethnic groups and national identity (Han, 2010). Consequently, national identity refers to the identity of the citizens of a country with their own country's historical and cultural traditions, moral values, ideals, beliefs, national sovereignty, and so on. It manifests as individuals or groups believing that they belong to a country as a political community (He & Yan, 2008).

In defining the concept, however, there are still debates over the distinction between "real" and "imagined" perspectives on nations (Anderson, 2020; Gellner, 1983). However, scholars, on the other hand, argued that this is too much of a burden for one conceptual term given the vast array of different approaches to national identity (e.g., Brubaker & Cooper, 2000). In addition to the conceptual debate, the role of national affiliation in identity construction has been challenged by postmodern accounts. Proponents of this view suggest that globalization and transnationalization are undermining the centrality of nations. They argue that instead of alternative, and often localized, sources of identity are becoming increasingly significant (e.g., Hedetoft & Hjort, 2002; Herrmann et al., 2004).

Finneran (2003) reported that the issue of national identity in Ethiopia has been shaped at many levels in the past. He stated that self-confidence, nationwide pride in the very localized glories of an Aksumite past, a strong ecclesiastical fabric, historiographical, ethnic and linguistic elements and a small, though ultimately traumatic, brush with the colonial experience have conspired to shape a very unique view of Ethiopian heritage. One of the major reasons why Ethiopia has not disintegrated along ethnic lines is this common view of a glorious past enhancing this strange sense of not belonging to Africa. In other African countries, governments must tread wary representations of heritage while encouraging tribal

division and fostering divisiveness, according to the author. However, it seems problematic to take the author's ideas as it is for current Ethiopia, as ethnicity is increasingly becoming an identity issue.

The 'identity' component of national identity has also been criticized for its inflationary use and inherent ambivalence. Most importantly, it has been questioned for etymologically carrying connotations of essential intraindividual invariability and, simultaneously, interindividual sameness; hence, some agreed upon views of identity as a multiple and constantly renegotiated subjective relation to a national group (Brubaker & Cooper, 2000).

Despite the enduring debates over what a nation or national group or national identity actually is and how it is adequately defined, many scholars also suggest that identification with a nation precedes, in principle, certain qualities and characteristics. This idea directly leads to the social psychological theory of social identity to find adequate social psychological explanations.

Social identity theory (SIT) gives particular importance to the social categorization concept in understanding identification processes with groups and social categories. Social categorization is defined as a process whereby stimuli from the outside world are organized into comprehensible information units (Abrams & Hogg, 1990). It is a cognitive process that involves the unification of objects and social events in groups corresponding to an individual's actions, intentions, values and belief system (Tajfel, 1982; Tajfel & Forgas, 2000). In the formation of social categories, values play an important role in their preservation because they are an interpretation framework for social environment stimuli and allow the perceptions of similitude and differences among social categories to be established and emphasized (Abrams & Hogg, 1990; Fiske & Taylor, 2007; Tajfel, 1982; Tajfel & Forgas, 2000).

Scholars have also posited that the feeling of national identity is only one of the multiple forms of collective identification generated by humanity throughout history. According to

Billig (1995) and Torsti (2004), for example, national identity only appears when a system of political and social organization demonstrates what a nation-state is constituted. They noted that the state apparatus used the human need for collective identification to generate national identification. Wynter et al. (2001) claimed that national identity exists in two different poles. On the one hand, it exists in the public sphere in the form of articulated and highly selective speech produced by several social agents and institutions (intellectual elites, media, state institutions, etc.). On the other hand, national identity is expressed through several socially shared lifestyles and feelings, which are sometimes not appropriately represented by public versions of identity.

Social psychology researchers, however, have argued that identification with a group is sometimes different from identification with the members of a group (e.g., Karasawa, 1991) and that ingroup ties are essential dimensions of social identity categories (e.g., Cameron, 2004). In line with this notion, Tajfel and Turner (1979) referred to negative social identity as a potential risk for the self-concept and self-esteem of people who perceive a disadvantageous situation or an inferior position of their own group because the perception of disadvantage turns out to be a deficient self-perception (Mummendey et al., 1999).

Social identity theory is believed to be an invaluable theory because it emphasizes that categorization, including into nations, is a process of division that creates ingroups and outgroups. However, the theory has been criticized on many grounds. For example, the theory ignores the sociohistorical distinctiveness of 'nation' as a membership category compared with any other group or category and, similarly, takes no note of any differences between nations (Billig, 1995). The authors compared a category in social identity theory to Anderson's "imagined community" and noted that there are different types of community, but "... all these imaginings depend upon wider ideological beliefs. In consequence, grammatically similar statements of identity, can have very different meanings" (Billig, 1995, p. 68).

However, SIT is still taken as the prominent theory of social psychology to explain social identities such as national identity, essentially bringing together the individual and the social components.

From the aforementioned conceptual and theoretical reviews, one can understand that nationality is a subpart of social identity. This notion has been underscored by many scholars (e.g., Ashmore et al., 2004; Phinney, 1990). Consequently, social identity is generally defined as "... part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership" (Tajfel, & Fraser, 1978, p.63). From this definition, a cognitive, evaluative, and emotional dimension of social identity can be distinguished. Many scholars (e.g., Ashmore et al., 2004; Ellemers et al., 1999; Jackson, 2002) have exhaustively presented detailed explanations of these three dimensions of social identity in their respective works. In this particular section, they have been included in the review and are briefly presented below.

The cognitive dimension of social identity refers to the subjective knowledge of being a member of a particular social group. According to Ashmore et al. (2004), self-categorization is a necessary condition for developing a sense of belonging to and attachment to a group. As a result, a measure of national identity first has to capture whether participants identify themselves as members of a defined country. It may also include capturing the presence of dual identity, as participants may prefer an exclusive national or ethnic group identity (Verkuyten & Martinovic, 2012). However, dual identity does not necessarily mean that national and ethnic identities are equally strong (Simon & Grabow, 2010; Simon & Ruhs, 2008). An individual in the Ethiopian context can have dual identity, keeping other identity types constant. Consequently, individuals may show different degrees of identification and levels of loyalties to the groups to which they identify.

The evaluative dimension captures the value attached to group membership, as well as related attitudes (Ashmore et al., 2004; Sellers et al., 1998). The subjective evaluation of a group is referred to as private. That is, participants may evaluate their membership in a nation or country as either positive or negative.

The emotional dimension refers to the affective commitment to a group, which is often considered to be the most important component of social identity. The particular importance of the emotional dimension arises from the fact that it is the dimension most consequential for individual actions and ingroup bias (Ashmore et al., 2004; Jackson, 2002).

2.1.2. Social Intelligence

Carroll (1993) defined intelligence as a generic term for cognitive ability constructs that are generally valid for the accomplishment of heterogeneous tasks, problems, and situations. Common to all broad theoretical models and definitions is the basic idea that academic intelligence is a cognitive performance construct. The construct definitions include only cognitive operations, and task requirements are independent of contextual or situational influences.

An overview of definitions was given by Sternberg and Berg (1986), who presented the results of two symposia on intelligence that were held in 1921 and 1986. According to the authors, in these symposia, the main protagonists of intelligence research were asked to define their notion of intelligence. In the second symposium, for example, answers were manifold and ranged from intelligence "what is valued by culture" to "speed of mental processing", with a maximum agreement for the definition of "higher level components of abstract reasoning, representation, problem-solving, decision making" (p. 158).

In both symposia, as Sternberg and Berg (1986) noted, there was interest in the extension of existing intelligence concepts. Many of the participants of the second symposium, for example, asked for an investigation of intelligence in specific domains (music, arts, chess,

etc.). The real-life manifestations of intelligence were of interest. Furthermore, the extension of intelligence was the topic of many diversely oriented efforts by the convention of reputable experts. The third symposium held at Sydney in 2001 has expanded the concept of intelligence. The contributions at this symposium reflected the diversity of extensions to intelligence concepts ranging from reductionist approaches to a "trend of diversification" (Weis & SuB, 2005, p. 109). At the other end of the spectrum, the introduction of a new ability construct represents an attempt to diversify the field of human intelligence.

Social intelligence was intended to extend traditional intelligence concepts when it was first introduced by Edward Thorndike in 1920, according to the literature. However, research was not as programmatic as it was and was much more diverse than academic intelligence research. Compared with academic intelligence, the operationalizations of social intelligence contain additional or distinct criteria rather than just cognitive requirements. The diversity of approaches has resulted in limited progress in establishing social intelligence as a meaningful and unitary factor of human ability. Consequently, scholars have begun examining the relationship between social intelligence and other comparative concepts, such as competence, performance, abilities and skills. These concepts are presented comparatively with social intelligence.

The expressions intelligence and competence, for instance, are often applied synonymously in social intelligence research. For example, (SuB et al. 2005b, cited in Weis & SuB, 2005) identified important distinctions between these two concepts. According to them, 'competence' is specific to different situations and contexts (i.e., in certain applied settings) and is more subject to modification and learning than intelligence. Intelligence is relatively stable over time and is seen as hereditary to a substantial extent (Grigorenko, 2000). Thus, social competence can be classified as a socially constructed concept, as it comprises all person-related preconditions to show successful behavior in varying types of applied settings.

Moreover, definitions of social competence vary substantially according to the spectrum of covered human attributes from just one (e.g., management of conflict, communication skills) to a complex interaction of various variables (Weis & SuB, 2005). However, social intelligence is often a necessary part of competence concepts.

'Performance' is another concept that is often seen as synonymous with social intelligence. According to Weis and SuB (2005), however, performance indicates the finally expressed behavior (the result) in contrast to the person-related preconditions that "only" enable behavior (the potential). Whether a person is capable of showing successful or effective behavior is not a direct function of this person's potential (i.e., competence and intelligence); additionally, it is dependent on certain personality traits (e.g., shyness, altruism, etc.), moods and current psychological states (e.g., fear, exhaustion), and context variables (e.g., group values), as the authors state. Scholars have further elaborated that the distinction between competence and performance is not only theoretical but also apparent when potential- and results-oriented approaches used to assess social competence are distinguished. Unlike potential-oriented approaches, results-oriented approaches conceive of social competence as effective behavior (the outcome) where effectiveness is determined through the specific properties of the situation.

Last, but not least, is the distinction between social intelligence and abilities and skills. Intelligence constructs usually consist of several distinguishable ability factors, such as reasoning or verbal abilities. The competence construct also contains cognitive and behavioral skills. According to Scherer (2007), however, 'abilities' represent more general, dispositional capacities. They are "either genetically endowed or acquired over a long period of socialization" (p. 103). In contrast, 'skills' are concrete actions or applications of cognitive operations on concretely defined problems (e.g., driving with a stick shift or applying an

algorithm to some new data). Additionally, skills are acquired in a process of several steps and are ultimately characterized by an automated series of actions (Ackerman, 1987).

Social intelligence, therefore, includes one or more of the following key components: the ability to recognize, understand and express emotions and feelings; the ability to understand how others feel and relate with them; the ability to manage and control emotions; the ability to manage change, adapt and solve problems of a personal and interpersonal nature; and the ability to generate positive affect and be self-motivated (Bar-On, 2000).

2.1.3. Cultural Intelligence

Over the years, many studies have alluded to the idea that there are certain attributes of some individuals who allow them to be effective in cross-cultural communication (Ting-Toomey, 1999), in overseas assignments (Caligiuri, 2000; Church, 1982), or more generally in cross-cultural interactions (Cushner & Brislin, 1996). However, only recently have efforts to describe this individual difference in terms of intelligence emerged.

Cultural intelligence has recently been introduced as a quantitative continuum of individual differences along which people may be arrayed according to how much of this attribute they possess (Earley, 2002; Earley & Ang, 2003; Thomas & Inkson, 2003). However, these conceptualizations are often criticized because they fall short of specifying the construct as more than a loosely aggregated set of facets conceptually similar to intercultural competency, a global mindset or a host of other similar terms or as an extension of constructs such as social intelligence to a new domain (Weis & SuB, 2005). Accordingly, addressing fundamental conceptual issues and dictating what is, and is not, and its relationship with other specific types of intelligence would be vitally important here. Along with discussing its dimensions, stability across different levels of analysis is also equally important. They are addressed hereunder.

Cultural Intelligence as a Specific Type of Intelligence.

In defining CQ as one type of intelligence, 'global thinking', 'global mindset', or any other form of similar term, is widely used in the business management literature. There continues to be a good deal of confusion surrounding the definitions and constituent elements of these terms (Levy et al., 2007). However, the notion of intelligence is guided by many theories that are commonly described as a multifaceted construct (Gardner, 1993; Sternberg et al., 2000). Intelligence is also a system of interacting abilities (Sternberg, 2003). These factors combine to define the ability to adapt to, and enact, a specific type of environment, one that is characterized by cultural diversity and cross-cultural interactions. Cultural intelligence is, therefore, beyond the mere concept of a 'global mindset'.

Cultural intelligence shares some attributes with social and emotional intelligence, as intelligence is inherently multidimensional, as discussed before. However, social and emotional intelligence are specific to the culture in which they were developed and do not necessarily relate to cross-cultural interactions. For example, social skills learned and honed in one country may be ineffective or even offensive in another culture with different rules for social interaction (Ruzgis & Grigorenko, 1994). Culture can influence rules of emotional display (Ekman, 1982). There is some evidence that culture-specific norms exist for experiencing emotions (Eid & Diener, 2001). Cultural intelligence builds on these ideas, but it is not merely an application of existing capabilities. It is a unique construction of interacting abilities that exist outside the cultural boundaries in which these abilities were developed. Consequently, it is a multidimensional construct. These dimensions are discussed below.

Dimensions of Cultural Intelligence.

As described in chapter one, Earley and Ang (2003) theorized CQ as a multidimensional concept that includes metacognitive, cognitive, motivational, and behavioral concepts, emphasizing that the importance of the investigation of intelligence should extend beyond

mere cognitive ability (e.g., Ackerman, 1996; Gardner, 1993). These four dimensions of cultural intelligence imply that cultural intelligence not only includes multiple types of knowledge (understanding of a body of information) and skills (mastery of an application of knowledge) but also involves both cognitive and metacognitive (knowledge of and control over one's thinking and learning) dimensions, according to the authors. From the conceptualization, it is understood that there is a difference between intelligence and intelligent behavior. That is, what constitutes intelligent behavior (a behavior that demonstrates appropriate knowledge and skills) may differ from one cultural environment to another (Johnson et al., 2006). However, since similar mental processes can lead to different behaviors in various cultural contexts, cultural intelligence should encompass the elements of intelligence that are common across cultures rather than those that differ. The CQ dimensions are briefly presented below.

Metacognitive CQ.

Metacognitive CQ refers to an individual's level of consciousness and cultural awareness during cross-cultural interactions. People with strong metacognitive CQ consciously question their cultural assumptions, reflect during interactions, and adjust their cultural knowledge when interacting with those from other cultures (Earley & Ang, 2003). According to Flavell (1979) and Nelson (1996), metacognitive CQ involves higher-level cognitive strategies that allow individuals to develop new heuristics and rules for social interaction in novel cultural environments by promoting information processing at a deeper level. Those with high metacognitive CQ typically observe interactions and the communication style of their counterparts (such as turn-taking) and think about what constitutes appropriate behavior before speaking up.

The authors who have researched cultural intelligence consider the metacognitive factor of CQ to be a critical component of CQ for several reasons. For example, Earley and Ang (2003)

proposed three reasons. First, it promotes active thinking about people and situations in different cultural settings. Second, it triggers active challenges to rigid reliance on culturally bounded thinking and assumptions. Third, it drives individuals to adapt and revise their strategies so that they are more culturally appropriate and more likely to achieve the desired outcomes in cross-cultural encounters.

Metacognitive CQ, therefore, reflects mental processes that individuals use to acquire and understand cultural knowledge, including knowledge of and control over individual thought processes related to culture (Flavell, 1979). The relevant capabilities include planning, monitoring, and revising mental models of cultural norms for countries or groups of people. Those with high metacognitive CQ are consciously aware of the cultural preferences and norms of different societies before and during interactions. These individuals also question cultural assumptions and adjust their mental models during and after relevant experiences (Brislin et al., 2006; Nelson, 1996; Triandis, 2006).

Cognitive CQ.

While metacognitive CQ focuses on higher-order and advanced cognitive processes, cognitive CQ reflects knowledge of norms, practices, and conventions in different cultures that have been acquired from educational and personal experiences. The cognitive CQ dimension of cultural intelligence, therefore, refers to an individual's level of cultural knowledge or knowledge of the cultural environment. Cultural knowledge includes knowledge of oneself as embedded in the cultural context of the environment. Given the wide variety of cultures in the contemporary world, cognitive CQ indicates knowledge of cultural universals as well as knowledge of cultural differences (Earley & Ang, 2003).

Although there are large variations in culture, Triandis (1994) and Murdock (1987) suggested that at a higher level of abstraction, cultures share some common features. These are cultural universals based on fundamental needs because it is believed that all human

beings have similar basic needs. According to the authors, cultural universals include technological innovations (e.g., tools), methods of obtaining food (e.g., hunting, agriculture), economic activity (e.g., trading), patterns of social interaction (e.g., does one talk to one's mother-in-law?), childrearing practices, beliefs and behaviors that relate humans to the universe (e.g., religion), aesthetic preferences, patterns of communication (language, gestures), and so on.

Earley and Ang (2003) further elaborated on these cultural universals. All societies possess fundamental systems to meet basic physiological needs. As a result, societies have economic systems to systematically produce vital commodities and distribute products and services. Societies also codify mating and child-rearing practices that create marriage, family, and other social systems. Educational systems enable learning and cultural transmission, whereas political, legal, and social control systems reduce anarchy and destruction (obedience to social norms). To facilitate interaction, societies develop language systems and systems of communication (verbal and nonverbal). Finally, societies have systems for explaining unexplainable (often relying on supernatural beliefs such as religion and witchcraft) and thus have systems of supernatural beliefs that help explain otherwise inexplicable phenomena.

Similar to metacognitive CQ, the cognitive factor of CQ is taken as a critical component of CQ because knowledge of culture influences people's thoughts and behaviors.

Understanding a society's culture and the components of culture allows individuals to better appreciate the systems that shape and cause specific patterns of social interaction within a culture. Consequently, those with high cognitive CQ are better able to interact with people from culturally different societies (Earley & Ang, 2003).

Motivational CQ.

Motivational CQ reflects the ability to direct attention and energy toward learning about and functioning in situations characterized by cultural differences. Kanfer and Heggstad

(1997) argued that such motivational capacities "provide agentic control of effect, cognition and behavior that facilitate goal accomplishment" (p. 39). According to the expectancy-value theory of motivation (Eccles & Wigfield, 2002), the direction and magnitude of energy channeled toward a particular task involves two elements: the expectation of accomplishing the task and the value associated with accomplishing the task. Those with high motivational CQ direct attention and energy toward cross-cultural situations on the basis of intrinsic interest (Deci & Ryan, 1985) and confidence in cross-cultural effectiveness (Bandura, 2002).

Like metacognitive CQ and cognitive CQ, motivational CQ is also a critical component of CQ because it is a source of drive. It triggers effort and energy directed toward functioning in novel cultural settings. Without the attention and energy to do something, it will not be possible to accomplish anything in this real world. For this reason, Earley and Ang (2003) presented an example in which a Chinese executive who has had a good command of Japanese and likes interacting with those from other cultures would not hesitate to initiate a conversation with a colleague from Japan. In contrast, another Chinese executive who is just learning Japanese or dislikes cross-cultural encounters would be less likely to engage in such a cross-cultural interaction.

Behavioral CQ.

The last but not least common component of CQ is behavioral CQ, which reflects the ability to perform appropriate verbal and nonverbal actions when interacting with people from different cultures. Behavioral CQ refers to the extent to which an individual acts appropriately (both verbally and nonverbally) in cross-cultural situations (Earley & Ang, 2003). Like the three factors of CQ described above, behavioral CQ is a critical component of CQ because verbal and nonverbal behaviors are considered to be the most salient features of social interactions.

Hall (1959) emphasized that mental capabilities for cultural understanding and motivation must be complemented by the ability to exhibit appropriate verbal and nonverbal actions on the basis of the cultural values of a specific setting. When individuals initiate and maintain face-to-face interactions, they do not have access to each other's latent thoughts, feelings, or motivation. However, they can rely on what they see and hear in the other person's vocal, facial, and other outward expressions. The author reported that in cross-cultural situations, nonverbal behaviors are especially critical because they function as "silent language" and impart meaning in subtle and covert ways. Earley and Ang (2003) noted that because behavioral expressions are especially salient in cross-cultural encounters, the behavioral component of CQ may be the most critical factor that observers use to assess others' CQ.

According to Lustig and Koester (1999), the behavioral repertoires of cultures vary in three ways: in the specific range of behaviors that are enacted; in the display rules that govern when and under what circumstances specific nonverbal expressions are needed, preferred, permitted, or prohibited; and in the interpretations or meanings that are attributed to particular nonverbal behaviors. Consequently, individuals with high behavioral CQ are flexible and can adjust their behaviors according to the specifics of each cultural interaction.

Conceptual Distinctiveness of Cultural Intelligence.

To further clarify the nature of CQ, it is also important to describe what CQ is not. In particular, CQ's differences and similarities with personality and with other bits of intelligence (namely, cognitive ability and EQ) and its relationship with existing intercultural competency models remain vital. They are presented hereunder brief.

CQ as an Individual Difference.

Like the social intelligence comparative concepts discussed before, the literature in general suggests three broad categories of individual differences: abilities or capabilities,

personality, and interests (Ackerman & Humphreys, 1990; Boyle & Saklofske, 2004; Ilgen & Klein, 1988; Lubinski, 2000; Murphy, 1996). Cultural intelligence is grounded in the larger domain of individual differences. Conceptually, CQ is anchored in the intelligence literature and is a set of abilities or capabilities, as opposed to personality or interests. Abilities are "those personal characteristics that relate to the capability to perform the behavior of interest" (Ilgen & Klein, 1988, p. 146). Hence, it is important to differentiate CQ conceptually from personality characteristics, interests, and outcomes (e.g., decision-making, performance, and adjustment).

Consequently, individual differences vary in their 'specificity' and 'stability' (Ackerman & Humphreys, 1990; Chen et al., 2000). On the basis of the conceptualization given, CQ is a specific individual difference construct because it focuses on culturally relevant capabilities. It is more specific than broad individual differences, such as general cognitive ability and personality (Chen et al., 2000). However, it is equally important to note that CQ is not specific to a particular culture. According to Triandis (1994), CQ does not focus on the ability to function specifically in France or Japan, as in the culture-specific assimilator. Thus, CQ is not culture specific, but it is specific to particular types of culturally diverse situations.

With respect to stability over time, Chen et al. (2000) described personality as relatively stable, traitlike, and individual differences, whereas capabilities and interests are more static, evolving over time. Because CQ is a statelike individual difference, it is malleable and can be enhanced through experience, education, and training. This number increases on the basis of multicultural and international experiences (Takeuchi et al., 2005). Therefore, CQ is a specific, statelike, individual capability within the larger domain of individual differences.

CQ and Personality.

The CQ is already considered an ability domain. As an ability domain, therefore, it refers to what a person can do to be effective in culturally diverse settings. Consequently, it is

distinct from stable personality traits, which describe what a person typically does across situations and times (Costa & McCrae, 1992, cited in Costa & McCrae, 2008). However, since temperament influences the choice of behaviors and experiences, some personality traits might be related to CQ. Ang et al. (2004) reported the discriminant validity of the four dimensions of CQ compared with the Big Five personality traits. They also demonstrated meaningful relationships between specific personality characteristics and specific aspects of CQ. In particular, openness to experience, which is the tendency to be imaginative, creative, and adventurous (Costa & McCrae, 2008), is related to all four dimensions of CQ. With respect to this relationship, Earley and Ang (2003) explained that the correlation makes sense since CQ is a set of capabilities targeted at novel and unfamiliar cultural situations.

CQ and Other Intelligence Constructs.

CQ is similar to, yet distinct from, other forms of intelligence, for example, with general cognitive intelligence and emotional intelligence (Mayer & Salovey, 1993; Schutte et al., 1998). It is similar to the two types of intelligence because it addresses a set of abilities rather than preferred ways of behaving (Mayer et al., 2000). It is different from them in the nature of the ability it encompasses. General cognitive ability, which is most commonly considered the ability to learn, is an important individual difference that predicts performance across many jobs and related settings (Schmidt & Hunter, 1998). This intelligence, however, is not specific to certain contexts (Ackerman & Humphreys, 1990), such as culturally diverse situations. Additionally, general intelligence does not include behavioral or motivational aspects of intelligence, which are significant components of CQ.

In terms of the similarities and differences between cultural intelligence and emotional intelligence (EQ), EQ focuses on the ability to address personal emotions and is similar to CQ because it extends beyond academic and mental intelligence. However, EQ differs from CQ because it focuses on the general ability to perceive and manage emotions without considering

the cultural context. Given that emotional cues are symbolically constructed and historically transmitted within a culture (Fitch, 1998), the ability to encode or decode emotions in the home culture does not automatically transfer to unfamiliar cultures (Earley & Ang, 2003). Therefore, EQ is culture bound, and a person who has high EQ in one cultural context may not be emotionally intelligent in another culture. In contrast, CQ is culture free and refers to a general set of capabilities with relevance to situations characterized by cultural diversity; it does not focus on capabilities in a particular culture, as described in the aforementioned sections.

Antecedents and Consequences of CQ.

Since CQ is more statelike than traitlike, it is assumed that some personality traits can be antecedents of CQ. Chen et al. (2000) reported that trait-like individual differences predict more proximal statelike individual differences because temperament influences the choice of behavior and experiences. Thus, it is imperative to position stable distal traits (e.g., the Big Five) and demographic characteristics (e.g., age, gender) as antecedents.

As Earley and Ang (2003) posited, to avoid tautological reasoning, it is essential to differentiate CQ (a specific type of individual difference) from the consequences of CQ (such as successful functioning in international or other culturally diverse settings). This leads to distinctions that differentiate between behavior and outcomes of behavior (Miltnerberger et al. 1998). However, those with high CQ are assumed to have more effective performance and adjustment in multicultural work groups, studies abroad, and expatriate job assignments (Caligiuri et al., 1998; Kraimer et al., 2001; Takeuchi et al., 2005). Therefore, CQ is a capability that causes and/or facilitates outcomes such as adjustment and effective performance in culturally diverse settings.

In conclusion, CQ is a specific, statelike, individual capability that is related to other forms of intelligence and other indicators of intercultural competence while remaining

conceptually and empirically distinct. Cultural intelligence should, therefore, predict performance and adjustment outcomes in multicultural situations (Earley & Ang, 2003).

2.2. Review of Empirical Studies

2.2.1. *National Identity*

Identity in general and social identity in particular are social psychological constructs resulting from complex personal and environmental phenomena. In multinational countries, most notably, people may have different conceptions of national identity, regardless of whether they are very attached to their country or not (Brewer 2001; Huddy & Khatib, 2007). Therefore, national identity studies may stimulate different thoughts, depending on whether a participant belongs to a country with a very homogeneous population or whether a participant belongs to a country with high diversity in its ethnic composition (Citrin & David, 2009; Theiss-Morse, 2009; Westle, 2012).

According to Schwartz et al. (2012), the increasing ethnic and racial diversity within the United States has led to questions regarding what it means to be American as well as how strongly immigrants and members of various ethnic groups identify with this superordinate national category. Consequently, they conducted a study and reported that American identity is indeed a measurable construct, at least in terms of considering one's relationship with the United States and feeling attached to the country and the national group, suggesting that group identification may operate similarly for ethnic and national dimensions. In their study, American identity involves two major issues: (a) thoughtful consideration of what being part of the United States means to the person and pride in it and (b) attachment to the country and the national groups. They also investigated whether this character of American identity would be endorsed by all and found similarly across ethnic groups and all immigrants. It was found that Middle Easterners scored similarly to Whites on both American identity subscales, and

Asian descent groups scored lowest on American identity affirmation/commitment. The scores of Blacks and Hispanics were intermediate between those of Whites/Middle Easterners and Asians. One major gap in this study is that even though the study was conducted with college students, generalizations have been made to the other segments of American citizens.

Studies on British national identity, particularly in Scotland and Wales, and increasingly in England, have shown that a substantial number of people have prioritized what researchers call a 'national' identity over their 'state' identity (Bechhofer & McCrone, 2009b). In Northern Ireland, which is one part of the UK, issues of Britishness have a particular political meaning that relates to history and patterns of settlement, which have no counterpart elsewhere in the British state. Miguel (2004) reported that interethnic cooperation was greater in Tanzania than in Kenya. The author argued that a superseding national identity was more salient in Tanzania than in Kenya.

Adamu (2014) investigated religious diversity in higher education in Ethiopia. Students often make friends with individuals from different ethnic and religious backgrounds. However, in selecting close friends, one's ethnic identity has become more important than it was a decade or so ago. According to the study, this is associated with the politicization of ethnicity in the country. The study reported that despite students' positive perceptions of diversity and attitudes toward outgroups, the intergroup relationships among students from different ethnic and religious backgrounds are gradually deteriorating. In addition, the study revealed that despite the economic issue, which is the common reason that students mentioned in their transfer request application, it is rather ethnic-related issues that are the main reasons for most transfer requests. One major limitation of this study is that while it was conducted at a single university (i.e., Bahir Dar University), generalizations have been made to all Ethiopian higher education institutions.

The studies, however, examined these group identities through ideological and political measures of national and ethical identities. This is one of the major gaps in the literature because national identity has been more often associated with political systems and structural stuff, neglecting it as a social psychological construct as well. Many studies have not examined the dynamics of the evolution of national identity as a social psychological variable. Those aforementioned studies have shown this gap. It seems that the established and prolonged discourse about 'nation', 'nationalism' and 'nationality' that revolves around politics and political ideologies has contributed to the scant presence of studies on the theoretical considerations of social psychology, which is a significant source of identity formation and its development processes.

2.2.2. Social Intelligence

Pabian and Vandebosch (2014) conducted a study that examined bullying perpetration and social intelligence, considering the latter as a sociocognitive characteristic assumed as a possible regulator of traditional cyberbullying. They compared social intelligence for perpetrators and nonperpetrators of traditional bullying and/or cyberbullying and examined longitudinal associations. After latent growth curves of social intelligence were calculated for each profile, the study revealed that nonstop traditional bullies had the lowest levels of social intelligence, and their levels remained low. This experimental research was conducted over six-month time intervals across two years. The current research is different in design.

Habib et al. (2013) developed and validated a social intelligence scale. In this study, attributes of social intelligence were elicited from university students. After content validation, 431 university students were asked to rate themselves on 98 items on a 4-point Likert scale. Factor analysis revealed the presence of five factors, namely, social manipulation (SM), social facilitation (SF), social empathy (SE), extroversion (E), and social adaptability (SA). Social manipulation and SA appeared to be the two ends of social skills judged to be

negative and positive, respectively, according to the research. Social manipulation comprises a rather devious set of items used to exploit others for selfish ends. Social adaptability represents honest and sincere interactions with others, resulting in mutual benefits. SF was positively related to SE and SA, whereas SM was not. Extroversion was highly correlated with all factors. The aim of such validation studies is to show how the social intelligence construct has received researchers' attention as an important area of investigation.

Eshghi et al. (2013) investigated the relationship between social intelligence and effective influence among physical education experts. They conducted the study on 48 physical education experts, 37 men and 11 women whose ages ranged from 35 to 46 years in Isfahan education organizations. The results revealed that the correlation between overall social intelligence scores and overall effective influence scores was significant. Furthermore, the correlation between overall social intelligence scores and effective influence subscales was significant. The differences between gender and experience with social intelligence and effective influence were not significant, but there was a significant difference between academic level and social intelligence. The strength of the correlations obtained in the research suggested that overall social intelligence has a significant role in effective influence and its subscales. One of the limitations of this research is that it had a limited sample size to be able to make a valid generalization. The magnitude of each correlation was not also shown or described enough in the study.

2.2.3. Cultural Intelligence

This is because CQ has the ability to function effectively in culturally diverse settings (Earley & Ang, 2003), and it also addresses how people adapt and thrive in an environment other than the one in which they are socialized (Brislin et al., 2006). This means, in other words, that some sort of wider experience with cross-cultural encounters is needed to address CQ. This argument is empirically supported by the study of Ramalu et al. (2010). They

reported significant correlations between the length of stays abroad and three of the four CQ dimensions (metacognitive CQ, cognitive CQ, and behavioral CQ). Similarly, Imai and Gelfand (2010) revealed a positive correlation between international experience and behavioral CQ.

Seeking to enhance the theoretical accounts, empirical precision and practical importance of the cultural intelligence construct, Ang et al. (2013) developed and tested a model that posited differential relationships between the four CQ dimensions (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ) and three intercultural effectiveness outcomes (cultural judgment and decision making, cultural adaptation, and task performance in culturally diverse settings). Before testing the model, they conducted cross-validation studies ($N = 1,360$) on the multidimensionality of the cultural intelligence scale (CQS) across samples, time, and country. In addition to the validation study, they reported three correlational studies ($N = 794$) in educational development settings across two national contexts—the USA and Singapore. The results revealed a consistent pattern of relationships where metacognitive CQ and cognitive CQ predicted cultural judgment and decision-making; motivational CQ and behavioral CQ predicted cultural adaptation; and metacognitive CQ and behavioral CQ predicted task performance. The limitation of this research is its limited geographic scope. It would have been possible to make broader conclusions had many more countries been included in the study.

Cristina et al. (2016) examined the role of education-related factors in the development of cultural intelligence among 557 participants of the Colombian International Business undergraduate program. The results of the study revealed that second language proficiency, multicultural team membership, and participation in curricular and extracurricular activities promoted the development of the cultural intelligence of students. Furthermore, the results revealed differences in the four dimensions of CQ between students who participated in

extracurricular activities dealing with other cultures and those who did not. Specifically, the former reported higher levels in all CQ dimensions. The study, however, also provided a paradoxical finding concluding that as students advanced in their studies, they achieved higher levels of cultural intelligence. On the one hand, the increase was not continuous, and there might be declines in semesters four, nine and seven, as opposed to the former.

Geleta and Amsale (2016) investigated the multicultural competencies of higher education leaders in Ethiopia. The university leaders and academic and administrative staff did not have a considerable understanding of multiculturalism and pluralism. The study also revealed that universities need multicultural competencies and opportunities to enhance this ability. As the research did not include students, it might not have a direct relationship with the aim of the present study. However, the findings in the university setting, in which the present study was conducted, would have some important implications for the landscape of higher academic environments, as there is a substantial lack of studies on the construct.

2.3. Review of Methodological Approaches

2.3.1. *National Identity*

Many studies have been conducted to understand ethnic and national identities in many nations of Europe. However, the majority of the studies have been comparative studies. For example, studies have shown that native populations are indistinguishable. In contrast, immigrants and their descendants generally identify with their ethnic groups, with the host country, or with a combination of these two in the form of dual identity (Phinney et al., 2006; Verkuyten & Martinovic, 2012). These studies sought to understand national identity by comparing only those whom they called 'native' and 'immigrants'. They were not methodologically designed to determine whether the differences in identifications could correlate with variables such as individuals' identity formation and development.

From the extant literature review, it is hardly possible to find substantive studies of national identity from the social psychology viewpoint in the Ethiopian context. Some of the studies' implications have shown the considerable importance of the problem to be examined further. Among the few studies, the investigation conducted by Keller and Omwami (2007) has been found to be the closest to the present inquiry. It is assumed important to make a fair review of the study and understand its methodological approach in the quest.

Keller and Omwami (2007) researched 277 participants from Oromia, the Southern Nations and Nationalities and Peoples' Regional (SNNPR), Tigray, Amhara, Benishangul-Gumuz, and the capital city Addis Ababa, focusing on people's perceptions of issues of national identity, citizenship, government service delivery, equity, and popular participation. These findings call for further investigations from a social psychology perspective in the Ethiopian context. For example, the Berta and SNNPR participants were found more than the Amharas participants agreed that they felt pride in their nationality group. Residents of SNNPR were more likely than residents of Tigray to agree with this position, whereas the residents of Amhara were more likely to disagree. The findings also revealed that Tigrayans and Amharas were more likely to believe that their Ethiopian national identity was significant to them. Moreover, Berta and SNNPR and Benishangul-Gumuz felt stronger ties to those from their nationality groups than the Amhara respondents did.

The study revealed that residents of Addis Ababa, SNNPR and Benishangul-Gumuz felt stronger ties to those from their nationality group than did reference Tigray residents. Here, the location of the participants' residences was found to be the most influential predictor of the observed variability. In addition, the respondents from the Tigrayan nationality group agreed that they wanted their children to think of themselves as Tigrayan, even when the residences of the respondents were forced into the equation. Residents from Amhara and

Oromia were also more likely to want their children to be proud of belonging to their particular ethnic group than were respondents residing in Tigray.

The study also examined the collective interests of all these nationalist groups as being Ethiopian. In this context, members of both the Oromo and Berta nationality groups were more likely than Amharas were to agree that the interest of the Ethiopian people as a whole is more important than the interests of any single, nation, nationality, or people in the country. When a region of residence was included in the regression, only residences in Amhara presented a statistically significant response pattern compared with the Tigray reference group. Amhara residents were more likely to disagree than residents of Tigray, prioritizing the interests of their nationality group.

The participants of the study supported the idea that Ethiopian national unity is somewhat more important than self-determination. In contrast with most demographic variables, however, women were found to be more likely than men to agree that it is more important that certain nations, nationalities or people should have the right to determine their future than it is for the country to have a sense of unity and common purpose. All the participants, regardless of their nationality group, indicated pride in their group and their Ethiopian identity.

Because people are exposed to different narratives regarding Ethiopian national identity, especially in recent times, the perceptions people gave for their Ethiopian and national group membership, which was revealed by the study, might not be counterintuitive. However, there seems to be significant methodological concern about the design, sample size, and sampling employed in the study to come to a solid conclusion. In addition, it did not include students in university settings.

A study conducted by Fisseha (2016) on two Ethiopian universities (one in Oromia and another in the Southern Nations, Nationalities, and Peoples' (SNNP) regions) revealed that the issue of Ethiopian multiculturalism stemmed from the political system of ethnic federalism

and that the system seriously affects interethnic relationships, contributing to the decline in social cohesion, the rise of 'narrow nationalism', and ethnic conflicts. Although the study provided important insight into 'nationalism' in an academic institution context, it focused on the systemic and structural issues of the political system and how it has been affecting the education sector. In addition to methodologically excluding university students from the study, social psychological variables were also overlooked.

2.3.2. Social Intelligence

In the aforementioned section, research on social intelligence was not as programmatic as that on academic intelligence and was much more diverse than traditional academic intelligence research. For example, social skills were assessed as indicators of social intelligence via self-reported inventories (Marlowe, 1986; Riggio, 1986). Social behavior is judged by trained observers and should also operationalize social intelligence (Ford & Tisak, 1983; Frederiksen et al., 1984). Thus, compared with academic intelligence, the measurements also contained additional or distinct criteria than just cognitive requirements. The diversity of approaches has resulted in limited progress in establishing social intelligence as a meaningful and unitary factor of human ability.

Moreover, the unsystematic use of definitions and measurement concepts resulted in legitimate skepticism among some authors (Ford, 1994) about whether to specify social intelligence as a performance or ability construct. Thus, the methods used by many scholars to examine social intelligence have had some obscurities in dictating whether it is an ability or performance construct. This distinction is discussed above (see Section 2.1.2).

In social psychological studies of intelligence, many have focused on academic and emotional intelligence instead of social intelligence. For example, emotional intelligence was examined by presenting an image or video of a person's face as the origin of emotions (Small & Verrochi, 2009; Wild et al., 2001). To advance the theoretical and methodological

substantiation of the social intelligence construct and to develop a test of battery, a study was conducted by Weis and SuB (2007). The study was performance-based and examined only the cognitive ability requirements of the construct.

The present research, which considers social intelligence as an independent type of intelligence, has two important departures from the aforementioned studies, as an investigation that employed a different method of inquiry. The first is that the present study employed a nonexperimental research design; in particular, it was cross-sectional. This helped reveal the nature of the construct outside a laboratory setting. Second, it addresses both the cognitive and behavioral aspects of social intelligence without separating one from the other dimension. In this respect, some studies have examined the cognitive and behavioral aspects of social intelligence separately.

Studies on young students have shown the importance of social intelligence for adolescents and young students in their lives. Dodge and Pettit (2003) reported that adolescents with better social intelligence can solve many societal problems, such as problems related to relationships. They can establish new relationships, form additional networks, and preserve their existing ones provided that they are socially intelligent. Although these studies are important for substantial theoretical and empirical purposes, they seem to have failed to attain novelty. An individual with a high level of social intelligence can be found good at resolving relationship problems. Additionally, they tended to examine more emotional aspects. The present research recognizes that a group is not a mere collection of individuals but that 'emotion' also takes a substantial portion to define it. However, social intelligence can independently be examined in a survey if a careful methodological design is put in place.

Furthermore, in the processes of investigating shared social cognition processes, studies have usually focused on the cognitive aspects of how people construct and share thoughts, ideas, and memories (Cannon & Salas, 2001). They tried to investigate how thoughts,

perceptions, memory, etc., and cognition processes are shared among given group members. In efforts to understand social information processing, for example, relatively, the entire work has focused on how people are influenced by others' cognitions and attitudes in their social environments (Bateman et al, 1987; Shetzer, 1993). Social information processing is one of the dimensions of social intelligence.

In contrast, the present study followed a methodology that included both the cognitive and behavioral aspects of social intelligence, as described above, hypothesizing that variation in the construct is the outcome of the cumulative result of these elements.

In conclusion, according to Weber and Westmeyer (2001, cited in Weis & SuB, 2005), psychometric intelligence is considered a psychologically defined concept on the basis of Wiggins' (1974) distinction between psychologically and socially defined concepts. The former is defined by psychological research and is prototypically applied as a predictor in the context of psychological assessment (e.g., academic intelligence). Underlying the idea of socially defined concepts is a social-constructivist perspective.

According to Weis & SuB (2005), prototypical examples in this regard are external criteria in applied settings, such as success in a job that is rated by a supervisor. Weber and Westmeyer (2001, cited in Weis & SuB, 2005), however, criticized that these former external criteria are now introduced as new ability constructs: emotional intelligence (Salovey & Mayer, 1990), practical intelligence (Wagner & Sternberg, 1985), or successful intelligence (Sternberg, 2003). Consequently, the present study, which used an adapted and translated version of the social intelligence instrument, is believed to have a methodologically sound approach in the investigation of the construct in the Ethiopian context, particularly in public university settings. Researchers and key stakeholders may use it either by readapting or adopting it.

2.3.3. Cultural Intelligence

Many of the studies conducted on CQ have focused, methodologically, on culture and personality schools and have attempted to conduct studies to establish a connection between the cultural institutions of a society and the psychology of its members. For example, one of its leading members, Abram Kardiner (cited in Taylor, 1996), summarized the connection via a model of a causal chain. With respect to the model, the primary institutions of society (such as its household and community organization and the way its children are trained) result from the adaptation of society to its environment over a long period. Kardiner exemplified Zuni Pueblo, who has a complex social organization in which cooperation and peace are based partly on a strong sense of shame. These features are related to a strong relationship with the mother and relatively little sibling rivalry. The description stresses that personality structure explains some of the secondary institutions of society, such as religion and myth (for example, certain taboos).

Such studies, however, have not consistently shown reliable findings on different cultures and ecological levels. Taylor (1996) noted that they have failed to obtain data on individuals; the larger features of society were explained by reference to other larger features, without any experimental study of the individuals who were supposedly the middle link of the causal chain. This is one of the methodological problems that have been observed in different studies on the problem.

The present study, nonetheless, focused on students from different backgrounds. Additionally, most studies on cultural intelligence have been conducted by Western researchers with small samples from societies. This by itself calls for methodological concerns.

The other methodological issue that the present review has discovered is homogeneity. Those studies assumed that members of a given community (society) would have similar

personalities, characteristics, individual attributes, etc. The present study, however, assumes that societies could have commonalities and manifestations of it, but research designs that do not consider individuals' variability will result in flawed findings and subsequent conclusions. Assuming that societies are uniform seems seriously defective.

Furthermore, scholars have argued that some sort of wider experience with cross-cultural encounters is needed to conduct studies on CQ. Tarique and Takeuchi (2008), for example, reported that international work experience significantly improves CQ. Crowne (2008) acknowledged that vacation contributes much less to CQ development than does study or work experience abroad. The authors noted that vast international experiences and/or exposures to people from different cultural backgrounds help very much in the development of cultural intelligence.

Ward et al. (2009) reported that people working abroad with more foreign experience have higher average CQ than do students with less foreign experience. They concluded that the lack of cultural experience may influence not only the level of CQ but also the psychometric properties of the measure and its dimensionality. That is, people without extended cultural encounters likely lack sufficient cross-cultural knowledge to adequately differentiate among the items that measure the CQ dimensions, according to the authors. Their limited experience makes them less reflective of the cultural perspectives to be assessed and to comprehend the subtleties of the CQ items effectively. Therefore, when designing research on CQ, the issue of the cultural experience of the supposed population needs to be considered.

Consequently, the current research also supposes that exposure and experience in culturally diverse settings is an important issue for the examination of CQ. However, people must not necessarily have international exposure and experience to be included in cultural intelligence studies. As far as the current research is concerned, this notion of the methodological issue is troublesome to apply directly to the Ethiopian context. Because

international experience is not mandatory and substantially important for examining CQ, particularly in countries such as Ethiopia, where cultural diversity is overwhelmed, more than 80 nations and nationalities are considered. This argument congruently aligns with the conceptualization of the CQ construct. Because CQ is the ability to function effectively in culturally diverse settings (Earley & Ang, 2003), it addresses how people adapt and thrive in an environment other than the one in which they are socialized (Brislin et al., 2006). This means, in other words, it requires some sort of wider experience, out of one's group, with cross-cultural encounters to investigate the construct, but not necessarily an international one. Ethiopia is a very diverse country with different ethnicities and nationalities; each has its own distinct language, culture, and traditions. Public university students in Ethiopia come from diverse groups across the country.

However, to address, methodologically, the problem associated with a lack of cultural experience and lack of exposure to people with different backgrounds, senior students (year three and above) constitute the target population of the current study. The assumption is that senior students in public universities could have better exposure and experience with students from different cultures than junior-level and freshman students.

Moreover, previous studies have strived to understand how an intelligence construct could relate to other variables, but they have fallen short of methodological designs to enable them to perform a complete analysis of what correlations the constructs would have among heterogeneous people. For example, in Brief's and Weiss's (2002) study, the importance of emotional intelligence in organizational behavior and how it could be solidly established was shown. In this research, greater methodological emphasis was given to individuals' personalities than to groups' social and cultural backgrounds. The current study, however, has assumed that cultural intelligence is not situated in personality, so it is an individual's difference because it is more of a state-like than a trait-like construct.

In conclusion, in the process of understanding these two intelligence constructs (social and cultural), dichotomizing the variables into their respective dimensions and examining one of the facets of the variables merely and separately might not provide a complete picture of the constructs. This review revealed that many studies on the constructs sought to examine and understand them by analyzing a single dimension of the constructs. The present study, nonetheless, has attempted to understand the constructs employing a methodological design of examining all the dimensions, as proposed by the literature. Moreover, social intelligence is about understanding others and behaving accordingly, and cultural intelligence is the ability to function and manage effectively in culturally diverse settings; their definitions and conceptualizations imply that the constructs can be better understood by examining all of their respective dimensions together. However, it is assumed in this research that the two constructs are different from one another and are substantially different from other intelligence types.

2.4. Theoretical Framework

To frame the research problem and guide subsequent explanations, two key theories were selected to form the theoretical framework of this study: Social Identity Theory (SIT) and the Triarchic Theory of Intelligence. While both theories are integrated, SIT serves as the primary framework, particularly for conceptualizing and understanding national identity. The Triarchic Theory of Intelligence supports the framing and explanation of the constructs of social intelligence and cultural intelligence. The major assumptions underlying each theory are outlined below.

2.4.1. Theory of Social Identity

The topmost theoretical approach that has been consistently used by researchers for a long time, with the goal of explaining affiliation with diverse groups and maintaining collective identities, is social identity theory (Tajfel, 1981). It defines social identity as "(...) that part of

the individual's self-concept which derives from his knowledge of his membership in a social group (or groups) together with the value and emotional significance attached to that membership" (p. 24). This theory brings together the individual and the social (Abrams & Hogg, 1990; Turner & Giles, 1981).

The theory places great emphasis on the process of self-categorization as an important determinant of group behavior and ingroup identity. It claims that a sense of belonging to an 'ingroup' is distinct from an 'outgroup', which people acquire through the process of self-categorization. Furthermore, in understanding the process of self-definition as a member of a particular social group, SIT sheds light on motivational and affective factors that operate in the production and reproduction of the concepts of social groups (Tajfel & Turner, 1979). They noted the links between people's evaluation of their social group and their self-esteem. Because of people's inherent need for a positive self-concept, there is a tendency to judge their group favorably, including interpreting their own group's past positively.

Social identity theory, as a social psychological theory, draws a connection between the cognitive and perceptual processes of an individual and the behavior of social groups. Here, two levels are emphasized in the theory: individual and social. Membership in a group operates at both the social and individual (cognitive and emotional) levels. At the individual level, the theory explains the emotional link between group membership and self-identity. On the social level, it explains group conflict and change, for example.

In particular, Tajfel (1981), the prominent social identity theorist, asserted that "a nation will only exist if a body of people feel themselves to be a nation" (p. 229). Consequently, the theory connects the public face of the nation or nation-state, such as flags, anthems, passports, celebrations, values, and beliefs, with strong personal emotions and identifications. It also explains how distinctive qualities and characteristics are ascribed to members of different

national groups, including relatively newly established groups, and how the cognitive operation characteristics of categorization intensify group divisions (Taylor, 1996).

Therefore, Ethiopian national identity has been framed, examined, and explained from the perspective of these major theoretical foundational assumptions of social identity theory in this study.

2.4.2. Triarchic Theory of Intelligence

It appears to be rare to obtain specific but exhaustive theories to adequately apply in the investigation of specific types of intelligence, particularly social and cultural intelligence. The literature has not presented many options in this regard. To the best of the researcher's knowledge, Sternberg's (1988) triarchic theory of intelligence is the paramount theoretical approach that is believed to help the framing and explanation of social and cultural intelligence, especially for studies relying on self-reported measures of intelligence.

Triarchic theory fundamentally comprises three subtheories, each of which relates to a specific kind of intelligence facet. The componential subtheory, which corresponds to analytical intelligence, or the ability to solve problems; the contextual subtheory, which corresponds to practical intelligence, or the ability to successfully function in one's environment; and the experiential subtheory, which corresponds to creative intelligence, or the ability to deal with novel situations or issues (Sternberg, 1985, 1988). To Sternberg, intelligent thought is not aimless or random but rather is directed toward behavioral goals relevant to the life of the individual, including adaptation to an environment and selection and shaping of an environment (Gross, 1996).

The theory proposes that there are three distinct facets of intelligence: analytical, practical, and creative. Sternberg's (1988) triarchic theory of intelligence combines the elements that go into information processing and is more extensive than his earlier 1985 work, according to Gross (1996). Consequently, the theory attempts to explain the relationship between

intelligence and the internal and external worlds of the individual on the basis of these three distinctive capabilities—analytical, practical and creative.

With respect to the analytical facet of intelligence, Sternberg (1988) focused on inductive reasoning, the type of thinking necessary in the completion of a series of tasks and analogies. The other two (practical and creative) facets of intelligence address tasks that may cause individual differences in observed performance in both test and nontest situations (Gross, 1996).

Researchers on intelligence (e.g., Tigner & Tigner, 2000) reported that the analytical intelligence facet was the first module Sternberg described very well and was perhaps his most thoroughly developed one. The analytical facet of intelligence is what we use when we analyze, compare, and evaluate and is necessary for successful problem-solving and decision-making. It includes metacomponents, performance components, and knowledge acquisition components (Sternberg, 1988). People with analytical intelligence do not excel only in academic areas. They are also particularly adept at problem-solving and decision-making. Their ability to monitor and evaluate their progress is particularly high (Sternberg, 1988).

The practical facet of intelligence allows for the generalization of knowledge gained in a particular context to other contexts that appear during one's life. A person with practical intelligence can apply procedural knowledge to everyday tasks. According to Sternberg and Wagner (1989), teachers, for example, should assist students not only in acquiring information (a component of analytical intelligence) but also in applying that knowledge to the world in which they live (practical intelligence). Sternberg originally labeled this component 'contextual intelligence' (Sternberg, 1985).

The practical intelligence facet is much more individualistic than analytical intelligence, according to Sternberg. What is useful in one's life may not be useful in another's life and vice versa. Furthermore, what is seemingly irrelevant to one's life now may have utility to him/her

in the future. Hence, practical intelligence is difficult to assess via 'typical intelligence tests' and may show very little correlation with academic performance (Tigner, & Tigner, 2000).

The final component of Sternberg's triarchic theory of intelligence is the creative intelligence facet. This component of intelligence is important both when we encounter novel situations and when we deal with recurring circumstances. According to Tigner and Tigner (2000), novel situations require knowledge and skills that may not be loosely based only on past experience, and some people are more skilled than others at this kind of coping. Recurring situations, on the other hand, benefit from automatization that frees up attention for use elsewhere. Creative intelligence is, therefore, closely linked to the experience of the individual.

Therefore, social and cultural intelligence concepts have been framed, examined, and explained from the perspective of the triarchic theory of intelligence assumptions.

2.4.3. Integrating the Theories

In addition to the theories' specific characteristics and approaches, there are common elements that the SIT and the triarchic theory of intelligence can share for explanations of the constructs for an integrative utilization approach.

The first that best describes one of their common views is the level of analysis that the two theories emphasize. As discussed above, SIT states that membership in a group operates at both the individual and the social level. At the individual level, it explains the emotional link between group membership and self-identity. On the social level, it offers explanations for group and societal changes. Triarchic intelligence theory attempts to explain intelligence akin to the internal and external world of an individual. From the perspective of triarchic theory of intelligence, understanding intrapersonal accounts of phenomena and the ability to solve problems and understanding and explanations of the environment and/or social world can best explain processes at both the individual and societal levels. The practical component of

intelligence, which allows an individual to make generalizations of knowledge gained in a particular context to the other contexts that appear during his/her life, can also be understood in this category. Most intelligent thought is directed toward attempting to adapt to one's environment (Sternberg, 2018). Therefore, the two theories can be synchronized and can adequately help framing, explanation, and discussion at the individual and group levels of analysis.

Second, both theories involve well-grounded theoretical assumptions and subsequent explanations about the cognitive, emotional, and behavioral aspects of individuals. In this context, social identity theory draws a connection between the cognitive and perceptual processes of the individual and the behavior of social groups. It explains how distinctive qualities and characteristics are ascribed to members of different national groups and how the cognitive operation characteristics of categorization intensify group divisions. In the triarchic theory of intelligence, the cognitive, emotional, and behavioral elements are addressed in the different facets of the specific intelligence components. For example, the practical component of intelligence is important both when we encounter novel situations and when we deal with recurring circumstances. In that sense, cognition, emotion, and behavior taxonomies are embedded.

Third, both theories claim that every behavior is goal oriented. According to the triarchic theory of intelligence, having the integrated maximum level of the three intelligence facets (analytical, practical, and creative) would leave an individual with successful intelligence. To have analytical, practical, and creative intelligence components, in other words, means having the ability to analyze personal and social problems, developing practical solutions, and being able to cope with novel and recurring situations effectively. It was pointed out earlier that intelligence is directed toward behavioral goals relevant to the life of the individual: adaptation to an environment and selection and shaping of an environment (Gross, 1996).

Similarly, social identity theory explains affiliation with diverse groups and the maintenance of collective identities for some purpose. Acquiring the three intelligence facets would help an individual have successful group interaction and the ability to maintain group identity.

Therefore, it is believed in this research that the integrative application of the two theories is substantive for the examination of national identity and social and cultural intelligence and to provide explanations for the results of the study.

2.5. Conceptualizations

2.5.1. Conceptualization of National Identity

The majority of social science research has conceptualized the issue of individuals' relationships with a nation using the concept of "national identity" (e.g., Kumar, 2003; Smith, 1992). In social psychological studies, as discussed before, national identity is conceived as a specific form of collective identity, which in turn is assumed to be a type of social identity (David & Bar-Tal, 2009). Therefore, examining and understanding national identity requires not only a coherent conceptualization of identity but also the consideration of nations and national groups.

To empirically assess identification with a nation from this perspective, it is essential to establish the qualities and characteristics of the nation that are likely to be perceived as features to which people relate and with which they identify. In this respect, Taylor (1996) noted that the literature on nations and nationalism—and particularly on national identity—is instructive to at least approximate some of these features that might form a common "relational core." What are suggested as features and characteristics of nationality in the overarching label of "relational core" was considered during the conceptualization of Ethiopian national identity in this research. Taylor (1996) built three key themes on the basis of a review of scholarship: symbols representing the nation, political and institutional features deemed characteristic of nations, and perceptions of the nation as a solidary community.

By adapting Taylor's (1996) conceptualization of national identity but being more grounded in social psychology, particularly in light of social identity theory and collective identity measurement, Ethiopian national identity has been conceptualized as exploring Ethiopia, Ethiopian identity, its symbols and/or cultures, and commitment because of membership in and identification with the social group (i.e., Ethiopian nationality) as a solidary homeland. As national identity is a concept that encompasses the cognitive, evaluative, and emotional elements of individuals (Taylor, 1996), this conceptualization has been assumed to comprise these elemental dimensions of collective identity. This includes the cognitive awareness of being a member of a nation called Ethiopia, the subjective evaluation of being Ethiopian, and the emotional attachment to Ethiopia.

Importantly, the present research has not made any attempts at claims related to the ontology of nation and/or nationalism and/or patriotism. Instead, it has been hypothesized that this constructed conceptualization can be helpful for the subsequent operationalization of Ethiopian national identity, comprising the social psychological attributes to which participants of the study could subjectively relate themselves so that it is possible to measure their degree of identification. Consequently, this study examined the Ethiopian national identity of undergraduate public university students from different backgrounds as constituents of Ethiopia. Moreover, the term 'national identity' in this study refers to Ethiopian national identity. As the term 'nationality' is also widely used for 'ethnic' identification purposes, it does not imply the latter in the present study.

2.5.2. Conceptualization of Social Intelligence

In examining the concept of social intelligence, the conceptualization of the construct lies mostly in the distinction between cognitive (i.e., understanding people) and behavioral (i.e., acting wisely in human relations) aspects. Vernon (1933, cited in Weis & SuB, 2005), for example, conceptualized social intelligence as "knowledge of social matters and insight into

the moods or personality traits of strangers" (cognition) and as the ability to "get along with others and ease in society" (behavior) (p. 44). Other definitions and conceptualizations also tended to focus on either of the two components—cognitive or behavioral.

Authors (e.g., Silvera et al., 2001) further conceptualized social intelligence as the set of social information processing (SIP), social skills (SSs), and social awareness (SA). These three facets of social intelligence have been assumed to be characteristics of an individual's ability to understand or comprehend verbal and nonverbal communications (i.e., SIP), the knowledge and practical ability regarding basic societal matters required by society (i.e., SSs), and an individual's ability to understand others' perspectives and behave accordingly in different settings in society (i.e., SA). Because these facets are indicators of the measurement of social intelligence, they are more elaborated in the operationalization section (see Section 2.6.2).

Therefore, social intelligence in this research has been conceptualized as the ability of a participant to understand others (cognitive abilities) and behave or act sensibly and wisely (behavioral abilities) in relationships.

2.5.3. Conceptualization of Cultural Intelligence

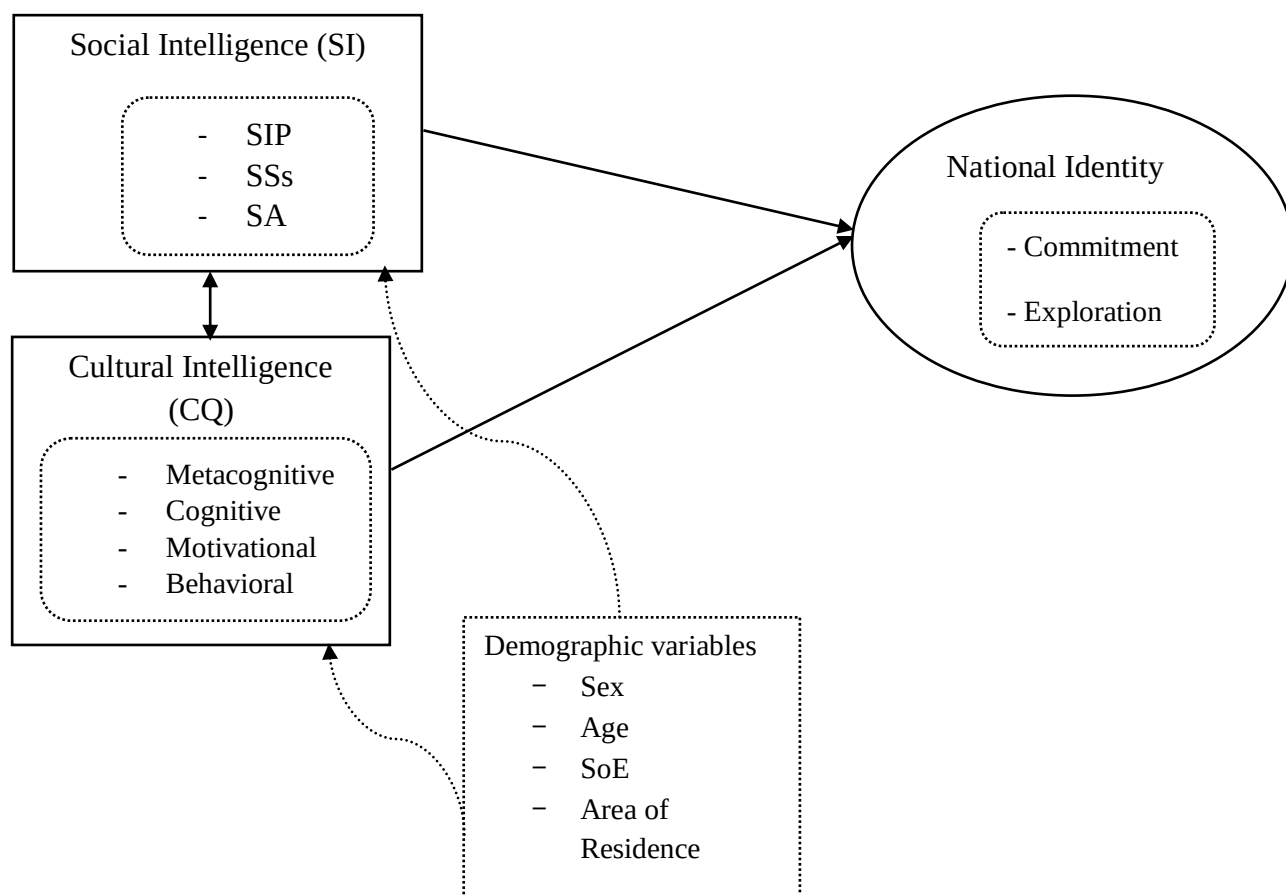
The general conceptualization of CQ is consistent with the definition given to general intelligence by Schmidt and Hunter (2000) as "the ability to grasp and reason correctly with abstractions (concepts) and solve problems" (p. 3). However, Earley and Ang (2003) developed a conceptual model of CQ, drawing on Stenberg's and Detterman's (1986) multidimensional perspective of intelligence. They theorized that CQ is a multidimensional concept that includes metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ components.

These authors integrated the myriad views of intelligence to propose four complementary ways to conceptualize individual-level intelligence. According to the authors, the overall CQ

construct may be best conceptualized as an aggregate multidimensional construct, which is similar to Law et al.'s (1998) view, who noted that a multidimensional construct has two distinguishing features: dimensions exist at the same level as conceptualization as the overall construct, and dimensions make up the overall construct. Thus, CQ has been conceptualized as the ability of an individual to function effectively in situations characterized by cultural diversity.

Similarly, in the present research, metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ were assumed to be qualitatively different but complementary elements of capabilities that together form the overall CQ construct. Both the cognitive facets of cultural intelligence (metacognitive CQ, cognitive CQ, and motivational CQ) and the behavioral facet (behavioral CQ) have been conceptualized together as components of CQ.

Consequently, CQ, in general, in this study has been conceptualized as a participant's ability to grasp, reason, behave, and function effectively in an environment characterized by cultural diversity. It is the capacity to understand, the effort exerted to know, recognize, tolerate, and recognize others' culture and cultural values. It includes a student's degree of not making judgments easily about others because one is from a culture different from his/her own. It also includes the curiosity a student could show to know about others' cultures and the values associated with them.

Figure 1.*Conceptual Model of the Study*

Adapted from the Integrative Model of Socially Competent Behavior (SuB et al., 2005)

2.6. Operationalizations

Operationalization of the concepts of NI, SI, and CQ in the present study's context is directly related to how to understand and measure these constructs via their respective specific dimensions. Accordingly, operational definitions of each of the constructs' dimensions with their respective measurements are presented in this section.

2.6.1. Operationalization of National Identity

The social psychology literature on how to measure national identity is vast. Because individuals might be in a situation where they are exposed to multiple narratives

simultaneously, they may find themselves identifying with multiple identities (sometimes conflicting), so subjectivity and perplexity might be involved. Consequently, there will be measurement issues. Operationalization of the concept remains essential to address such problems.

To measure national identity, therefore, the instrument that was chosen for the current study comprises two basic dimensions: exploration and commitment. 'Exploration' by the original measure was defined as pursuing information, knowledge, and experiences about one's social group (i.e., ethnicity). It is about how one is so keen to actively question his/her ethnic identity and seek greater information about it (Phinney & Ong, 2007).

Consequently, 'exploration' in the current research was operationally defined as the degree of curiosity and energy one pursues to acquire knowledge and information about the nation Ethiopia, including past histories of both glorious and inglorious aspects, which have been integral parts of Ethiopian national identity. The literature indicates that exploration is most prominent in adolescence but can continue afterwards (Phinney & Ong, 2007). It works for both adolescent and adult participants. The cognitive and evaluative elements of national identity are measured through the exploration dimension (Roberts et al., 1999).

'Commitment', on the other hand, refers to a fervent connection or personal attachment and investment in a group and may represent greater internalization and acceptance of one's social group, such as ethnic identity (Phinney & Ong, 2007). Rooted in this comprehensive definition, the present study operationally defines 'commitment' as the level of identification and degree of an individual's attachment to Ethiopian nationality and identification with it and the subsequent investment and/or devotion that the individual can pay. This indicates greater internalization and acceptance of one's collective identity, as measured by Phinney and Ong (2007) and Yoon (2011). The emotional component of national identity can be revealed and measured through the commitment factor of national identity (Roberts et al., 1999).

2.6.2. Operationalization of Social Intelligence

One of the challenges of measuring social intelligence that scholars have long raised was its abstraction to easily transform into measurable performance or explicit behavior. To address this measurement concern adequately, Silvera et al. (2001) identified indicators of the construct, such as the social information processing (SIP), social skills (SSs), and social awareness (SA) components of social intelligence. Consequently, they developed the Tromsø Social Intelligence Scale (TSIS). The SSs component focuses on issues concerning social execution, whereas SA and SIP are components of social recognition (Silvera et al., 2001).

The SIP dimension of social intelligence in this research, which stems from social information processing theory (Wyer, 2004; Wyer & Srull, 1980), has been operationalized as an individual's attempt and ability to understand others' communications and behavioral activities in social situations. It has been operationalized as the ability of a student to understand others' actions and an effort made by him/her to know the meanings ascribed by others from his/her own actions and/or communication activities. Therefore, examining SIP includes not only the ability to understand others' messages but also the meaning others could also ascribe from their actions and/or communication activities.

As a result, it is important to examine how an individual processes information obtained from others—from which meanings evolve—when studying an individual's social intelligence. Hence, in the SIP dimension of social intelligence, the ability of the participant to understand others' actions/messages and the meanings given by others for his/her actions and communication activities were measured.

In this study, social skills are operationally defined as the ability to have basic skills of interaction, recognition, consideration, and understanding of others and awareness of the basic social norms embedded in them. This operationalization is rooted in Canney's and Byrne's (2006) classification of social skills. They identify four overarching features of social skills:

foundation skills, interaction skills, emotional skills, and cognitive skills. It has thus been operationalized as a student's ability to communicate well on his/her debut, adjust himself/herself in social situations while many people are gathered, show respect, be sociable and easily interact with others, and know those social etiquettes associated with them.

Social awareness, which is the last dimension of social intelligence, has been defined as the ability to recognize and empathize with individuals from diverse backgrounds (Huynh, 2018). It refers to the awareness and behaviors of individuals in a shared environment (Prinz, 1999). It necessitates an understanding of a community's social situation within a shared environment, which can encompass physical, virtual, or hybrid spaces (Prasolova-Førland, 2004). According to Beamish and Bryer (2015), SA involves a range of skills, including assessing differences, understanding perspectives, demonstrating care and compassion, and empathizing with others' emotions.

As one indicator of SI, SA has been operationally defined in this study as an individual's ability to understand social and ethical norms, rules, and the capacity to successfully apply them and be watchful at times of interaction. It includes an individual's ability to understand the sources of variability of choices by others and the capacity to be able to recognize others' perspectives.

2.6.3. Operationalization of Cultural Intelligence

In the background section, CQ is an aggregate multidimensional construct (Earley & Ang, 2003) that includes metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ elements. These facets are qualitatively different from the overall ability to function and manage effectively in culturally diverse settings. Metacognitive CQ refers to knowledge and control of cognition (the processes that individuals apply to acquire and understand knowledge). Cognitive CQ refers to a person's knowledge structure and is consistent with Ackerman's (1996) intelligence-as-knowledge concept, which similarly argues for the

importance of knowledge as part of a person's intellect. Motivational CQ is about the mental capacity to direct and sustain energy on a particular task or situation and is based on contemporary views that motivational capabilities are critical to "real-world" problem solving (Ceci, 1996). Behavioral CQ refers to outward manifestations or overt actions— what the person does rather than what he or she thinks (Sternberg & Detterman, 1986, p. 6).

Rooted in the above definitions of the facets of CQ and as measured by Ang et al. (2007), metacognitive CQ in the present study has been operationalized as a student's higher-order capacity to acquire, apply, and control his/her cognition during interaction with people from different cultures. Cognitive CQ has been operationalized as a student's general understanding and knowledge structure of the different cultures in Ethiopia. Motivational CQ has been operationally defined as a student's curiosity, energy, and enthusiasm to learn and know about others' cultures in Ethiopia and the confidence he/she must be acquainted with them. Behavioral CQ has been operationally defined as the ability of a student to show appropriate behavior, communication (verbal and nonverbal), and explicit actions in general to those who were from different cultural backgrounds at times of interaction.

CHAPTER THREE

Methodology

This chapter presents the general methodological approaches employed in the study. It begins by outlining the research paradigm, followed by detailed descriptions of the study design, target population, participants, research setting, sample size determination, and sampling procedures. The chapter also discusses the instruments used, along with their statistical properties, and describes the processes of adaptation, translation, and validation. Furthermore, it explains the statistical methods applied for data analysis and concludes with an overview of the research procedures, emphasizing the ethical considerations observed during the data collection phases.

3.1. Research Paradigm

The study was informed by the positivist philosophical approach. Positivists posit that knowledge or facts can be obtained only by applying a scientific method of answering research questions (Saunders et al., 2009). Hence, close-ended questions were used to obtain objective data, positioning this perspective. As quantitative data were used throughout the study and the data analyses focused on identifying statistical relationships among variables, the researcher did not have an interpreter role. Therefore, the positivist point of view was predominantly adhered to in the study.

3.2. Research Design

The study was a nonexperimental study in which a cross-sectional research design was employed. According to Creswell and Creswell (2018), a "cross-sectional study is a type of research design in which we collect data from many different individuals at a single point in time. In cross-sectional research, you observe variables without influencing them" (p. 114).

As it is often used to explore and describe human behavior, a cross-sectional design is frequently employed in social and psychological research (Singleton & Straits, 2009).

This study aimed to examine the prediction of NI by the SI and CQ variables by utilizing data from young public university students. Thus, it employs a quantitative research method to meet its objectives.

As a predictive study, the predictor variables were SI and CQ, and the criterion variable was NI. The predictor variable SI had three factors, and CQ had four factors. Demographic variables (age, sex, family SoE background, and area of residence) were treated as control variables, and their influence on the key variables of interest (SI & CQ) in predicting NI was examined.

3.3. Study Population

The population of the study included public university students who had come to universities from all corners of the country or regions of Ethiopia and had reached year three or above. Among the public universities in Ethiopia, Adama Science and Technology, Dire Dawa, Wollo, and Wolkitie universities were selected for the study (see 3.5. How selection was performed).

As universities are normally expected to be diverse in terms of cultures, sexes, original areas of residence, and so on, although they differ in their compositions, obtaining as many heterogeneous samples from one university could not be a problem associated with the representativeness of the sample. However, to address probable concerns of heterogeneity in a sample that would arise from student assignment to universities, for example, a 40--60 policy (i.e., assigning 40% of the students in their region and 60% out of their region), although evidence from the MoE was not found, and other officially unknown factors, selecting universities from different regions was assumed to help widen the chances of obtaining more heterogeneous participants. For this reason, the selection of sample universities from different

regions of Ethiopia was planned instead of conducting the study on a single public university. Nonetheless, for the pilot study, the sample was selected from Dire Dawa and Wollo universities.

3.4. Participants of the Study

As noted above, the population of the study included public university students, who were found in their third year or above in the undergraduate program. Because SI and CQ are supposed to be built over time through interactions and exposures, the participants who opted for the study were senior students in the undergraduate program who had been in the universities for three years and above. This helped decrease ambiguity related to students' limited exposure and culture-bounded experience concerns, which are taken as the most important elements in understanding SI and CQ. Consequently, the university year of stay was considered an important aspect of participation in the study.

The study did not include graduate, postgraduate, or nonregular (summer, weekend, and distance) students. It focused only on regular senior undergraduate students. This is because, as cross-cultural encounters by participants are needed to address CQ as a problem in a study, there could be significant differences between students in the regular and other programs on the variable in question. To avoid the confounding of potential substantial variations in experience and exposure among participants, students in graduate, postgraduate, and nonregular programs were not included. There were no other inclusion-exclusion criteria than those mentioned.

Therefore, to address the potential problems associated with students' lack of cross-cultural experience, lack of exposure to people from different backgrounds, and inflated gaps in these attributes, senior university students in undergraduate programs were the focus of the current study.

Fourth-year students of psychiatry nursing, fifth-year students of electrical engineering and architecture, third-year students of civics education and journalism, fourth-year students of midwifery, and third-year students of accounting for the 2021/2002 academic year at DDU and WU were excluded from the sample selection of the main study. Students in these departments participated in the pilot study.

3.5. Study Area

To determine the research setting, three key factors related to resource utilization and practicality in addressing the problem were considered. The *accessibility*, *affordability* and *sensitivity* of the study sites were focused on. 'Accessibility' refers to gaining access to study sites with less bureaucracy to complete the data collection in a timely and less expensive manner. The goal of 'affordability' in this context was to refer to the physical and material capabilities of the researcher to obtain assistants voluntarily or less costly. The issue of 'sensitivity' in this study context should be addressed in the current security situation in Ethiopia. This means that safety and security matters during the trip and at data collection vis-a-vis the area where the public universities are located were considered when deciding to select the universities.

There were no other methodological reasons than those mentioned in choosing the study areas. Taking these resource-related and practical reasons into account, four public universities in the four regions (Amhara, Oromia, Dire Dawa, & SNNPR (this region has now split into four)) were arbitrarily chosen for the study. As Mason (2002) noted, such purposive sampling is typically performed on the basis of "the expert judgment of the researcher or some available resource identified by the researcher" (p. 140).

3.6. Sample Size

According to Kothari (2004), sample size depends on the objective of the study, the design of the study, the plan for statistical analysis, and the degree of precision required for generalization and degree of confidence. Considering these facts, the ratio of observations to estimated parameters ($N:q$) was used as a guide to determine the sample size; N = the total number of observations, and q = the number of parameters in the model. Kline (2016) recommended that the $N:q$ ratio should be 20 to 1. Accordingly, for this study, which featured 20 observed variables, a minimum of 400 sample participants ($20 \times 20 = 400$) was needed. With a likelihood of a nonresponse rate of 15%, the sample size was 460 ($60 + 400 = 460$). The reason for the extra cases is qualitative justification; it is for better generalization and precision by avoiding gradual sample size deterioration because of potential nonreturns, many more outliers, invalid values, missing values, etc. When this total sample size is divided into four universities, it will be 115 ($n = 115$). This number was allotted to each.

A total of 460 participants (115 from each of the four universities) were selected for the main study. With respect to the equivalent number of distributed questionnaires, 444 were appropriately filled out and returned. Among the remaining 16 questionnaires, 12 were not returned, and 4 were not properly filled out and returned. By taking lessons from the pilot study, the data collection for the main study was carried out via a stricter approach with a plan to achieve an absolute turnaround result. However, it was finally conducted on a sample of 441 students after cases with extreme missing values were excluded. This indicated that 95% of the questionnaires for each construct were returned, which was an excellent response rate. According to Rubin and Babbie (1997), a response rate of at least 50%, 60%, and 70% is usually considered adequate, good, and very good, respectively, for analysis and reporting.

Table 1.*Distribution of Sample Participants and Questionnaires of the Main Study*

University	Distributed Questionnaires	Unreturned	Ineligible	Returned & Eligible
ASTU	115	1	0	114
DDU	115	5	1	109
WkU	115	6	2	107
WU	115	0	1	114
Total	460	12	4	444

Note: ASTU = Adama science and technology university, DDU= Dire Dawa university, WkU = Wolkite university, WU = Wollo university.

To draw the sample for the pilot study from Dire Dawa and Wollo universities, Yamane's (1967) sample size formula and stratified proportional sample size formula were used together, taking the size of the population of the two strata (DDU & WU) as the general population. Thus, the sample size calculation was performed via the following formula:

$$n = \frac{N}{1 + N(e)^2}$$

where:

where n is the sample size; N is the population size; and e is the level of precision. The assumption is that at a 95% confidence level, $p = .05$. The size of the population was 11,359. Thus,

$$\begin{aligned} n &= \frac{11,359}{1 + 11,359 \cdot 0.05^2} \\ &= \underline{\underline{386}} \end{aligned}$$

It is recommended that in proportional stratified random sampling, the sample for each stratum should be proportional to the size of the subpopulation in each stratum. Accordingly,

to have a proportional allocation of the sample of participants, the sample size for each stratum was computed as follows:

$$nk = \frac{Nk*n}{N}$$

where:

nk is the sample size in each stratum; Nk is the size of the subpopulation in stratum k ; N is the total population; and n is the sample size for the population.

The population of the two universities was ((DDU = 6,737) + (WU = 4,622) = 11,359).

With a nonresponse rate of 5% (19 + 386 = 405), the sample taken was as follows:

$$\text{DDU} = n_{\text{DDU}} = \frac{Nk*n}{N} = \frac{6,737*386}{11,359} = 228$$

$$\text{WU} = n_{\text{WU}} = \frac{Nk*n}{N} = \frac{4,622*386}{11,359} = 158$$

A total of 405 participants (239 from DDU and 166 from WU) were drawn. From the equivalent number of distributed questionnaires of the Amharic language version, 348 were appropriately filled out and returned, whereas the remaining 57 (32 from DDU & 25 from WU) were either not returned or not properly filled out. Three participants were found to be non-Ethiopian and were excluded from the dataset. Two cases were found with extreme values during the preliminary analysis. Therefore, the validation study was conducted on a sample of 343 students. This indicated that 85% of the questionnaires were returned, which was an excellent response rate.

Among the 405 questionnaires distributed to English-language participants, 312 were appropriately filled out and returned. Ninety-three (57 from DDU & 36 from WU) were either not returned or not properly filled out. From the 312 eligible questionnaires for data encoding, 26 were found again either with extreme outlying cases or with inflated missed values.

Therefore, the pilot study for English-language participants was conducted with 286 participants.

The sample included fourth-year students of psychiatry nursing, fifth-year students of electrical engineering and architecture, third-year students of civics education and journalism, fourth-year students of midwifery, and third-year students of accounting for the 2021/22 academic year at DDU and WU. The data collection was carried out in April and June 2022, and the participants provided consent.

3.7. Sampling

Once the research setting and the sample size were determined, four strata (stratum of a university in Amhara, Oromia, Dire Dawa, and SNNPR (this region has now split into four regions)) were initially formed as described above. To draw the sample from each target population, a probability sampling technique was employed because it ensures the selection of a representative sample. Because probability sampling has many classifications, a disproportionate stratified random sampling technique was specifically used. However, for the pilot study, proportional stratified random sampling was employed, as indicated above. In proportional stratified random sampling, samples are drawn in proportion to the population (see Section 3.6).

However, for the main study, disproportionate stratified random sampling was used. Colleges and departments from each stratum were selected through simple random sampling. The names of the colleges were put in a box and randomly drawn. From each selected college again, departments were drawn in the same fashion. The sample participants were finally drawn through the lottery technique of the random sampling method.

During the practical fieldwork, nonetheless, a few departments under some colleges were found not to have students who reached year three and above. This was one of the challenges in implementing the planned sampling procedure. Consequently, only departments that had

year three or above students in a college were first screened and subjected to random selection. On this basis, in the ASTU stratum, the School of Civil Engineering and Architecture, the School of Mechanical, Chemical, and Material Engineering, and the School of Electrical Engineering and Computation were randomly selected. The Architecture, Urban Planning and Design, Geomatics Engineering, Chemical Engineering, Materials Engineering, and Software Engineering departments of these colleges were randomly selected. One hundred fifteen participants were randomly selected from these departments.

In the stratum of DDU, the College of Business and Economics, College of Social Sciences and Humanities, Institute of Technology, and College of Medicine and Health Science were similarly randomly selected. In these colleges, the Departments of Logistics and Supply Management, Economics, Geography and Environmental Studies, Psychology, Mechanical Engineering, Textile Engineering, Anesthesia, and Public Health were randomly selected. The same number of participants were drawn from these departments.

In the WkU stratum, the Colleges of Computing and Informatics, Social Sciences and Humanities, and Business and Economics were randomly selected. The departments of Information Technology, Computer Science, English Language, Civic and Ethical Studies, and Accounting and Finance were also randomly selected. The needed sample size was drawn from the students in these departments.

In the stratum of WU, the School of Veterinary Medicine, Kombolcha Institute of Technology (College of Informatics), and the School of Medicine were randomly selected. The departments of Pharmacy, School of Medicine, School of Nursing and Midwifery, School of Public Health, Software Engineering, and Information System were also randomly selected. Students in these departments and schools were randomly selected until the needed sample size was obtained.

3.8. Instruments

In this section, the instruments used to measure NI, SI and CQ are presented. The original instrument characteristics and their reported statistical attributes are described. Their reliability and validity after adaptation, translation, and validation for this particular study purpose are also reported. A detailed description of the tools is given below.

3.8.1. *National Identity*

Instruments that are believed to be most appropriate for measuring collective identities such as ethnic and national identities with heterogeneous samples are commonly called ‘multigroup measures’. One of the most frequently used measures in this regard is the Multigroup Ethnic Identity Measure (MEIM) developed by Phinney (1992). Since then, the MEIM has been revised and tested (e.g., Roberts et al., 1999; Phinney & Ong, 2007; Yoon, 2011) in different settings.

The MEIM was first developed to measure the process of ethnic identity development. It has been subsequently used in several studies and has consistently shown good reliability ($\alpha = > .80$) across a wide range of ethnic groups and ages (Phinney & Ong, 2007). The two factors on the 12-item scale (MEIM, Roberts et al., 1999) are identity exploration, which comprises five items, and identity commitment, which consists of seven items. Because of its flexibility and ability to measure other types of collective identity, it has been frequently adapted to measure national identity (e.g., Maehler et al., 2019; Schwartz et al., 2012, 2014); gender and religious identities (e.g., Ashdown et al., 2014); and racial, religious and national identities (e.g., Gaines et al., 2013).

The two factors can also be used independently, if needed, or in combination when evaluating the overall strength of collective identity. Translations of the measure into different

languages are also available (e.g., Maehler et al., 2019; Musso et al., 2017; Schwartz et al., 2014; Ting & Ting, 2020; Vedder, 2005).

One of the limitations of MEIM is that it was developed primarily to measure ethnic identity, although its openness to measure other collective identities has been described by developers, as mentioned above. From the social psychological perspective, both ethnic and national identities are subtypes of social identity. To address the problem of the original instrument and boost measurement specificity, the specific ethnic-related ‘items’ of the MEIM have been replaced by the specific "Ethiopian national identity" social category in the current study. That is, Ethiopian national identity was measured, substituting the term “Ethiopia” social group in place of “my ethnic group”, which originally appeared in the MEIM.

Therefore, the MEIM (Roberts et al., 1999) was adapted, translated, validated, and used in this study, on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A total of 15 items were initially used. However, two items were not found to be appropriate for measuring the exploration construct. With those poorly functioning items, the Cronbach’s alpha reliability coefficients of the Amharic versions of exploration and commitment were .78 and .93, respectively. When the items were discarded, the reliability coefficient of exploration became .92. The English version yielded reliability coefficients of .72 and .87 for exploration and commitment, respectively, with those poor items. After the two poorly functioning items in the exploration construct were discarded, its reliability coefficient became .84.

The Amharic version, which was solely used in the main study, yielded values of .90 and .92 for the exploration and commitment factors, respectively. The NI scale in general yielded .90 (see Table 2).

3.8.2. Social Intelligence

According to the extant literature review, self-reported measures of social intelligence are not widely available or found. However, some studies have applied self-reports as indicators of social intelligence (e.g., Brown & Anthony, 1990; Frankovsky & Birkner, 2014; Kriemeen & Hajaia, 2017; Marlowe, 1986; Riggio, 1986). One of the challenges raised in measuring the construct was its abstraction to easily transform into measurable performances or explicit behaviors. To address this measurement issue adequately, Silvera et al. (2001) identified social information processing (SIP), social skills (SSs), and social awareness (SA) components of social intelligence. Consequently, they developed the Tromso Social Intelligence Scale (TSIS) instrument.

The TSIS is a multifaceted social intelligence measure with a 7-point degree of agreement ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). It is an instrument that is most frequently used in several social intelligence studies. It consists of 21 items and measures three social intelligence dimensions—SIP, SSs, and SA—each of which utilizes seven items. Consequently, the present study used this self-reported measure of social intelligence.

The reliability coefficients for the three elements of the TSIS (SIP, SSs & SA) are reported in the original measure as .79, .85, and .72, respectively. In the pilot study phase of the present study, the reliability coefficients for the Amharic language versions of the SIP, SSs, and SA were .94, .91, and .92, respectively. The English language versions of the SIP, SSs, and SA were found to be .90, .84, and .87, respectively. During the main study, the SIP, SSs, and SA of the Amharic language version yielded Cronbach's alpha coefficients of .90, .94, and .88, respectively (see Table 2).

3.8.3. Cultural Intelligence

The instrument used to measure cultural intelligence in this research was the Cultural Intelligence Scale (CQS), which was developed and validated by Ang et al. (2007) across

different samples, times, and countries, with cross-validation works on undergraduate students in Singapore and in the U.S. Subsequent studies supporting the psychometrics, factor structure, validity, and generalizability of the CQS.

It has 20 items covering the four dimensions of CQ (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ). There are four items for metacognitive CQ ($\alpha = .76$), six items for cognitive CQ ($\alpha = .84$), five items for behavioral CQ ($\alpha = .83$), and five items for motivational CQ ($\alpha = .76$). All the CQS items are measured on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The higher the score is, the higher the level of CQ (Ward et al., 2011).

One of the problems of the CQS is that it is presented as a generic tool, so it would only allow the capture of cultural intelligence in a more general way. This limitation has been alleviated in the present study by modifying and customizing the items in the Ethiopian context. In the adaptation and translation process, prominent samples of cultures in Ethiopia were sampled (see Section 3.9).

Therefore, the CQS was adapted and used in this study. During the pilot study phase, the reliability coefficients of the Amharic language versions of metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ were found to be .82, .87, .88, and .88, respectively. The reliability coefficients of the English-language versions of metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ were also found to be .81, .87, .86, and .86, respectively. The main study that used the Amharic language version of the CQS yielded Cronbach's alpha values of .81, .89, .88 and .89 for the metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ factors, respectively (see Table 2).

4.8.4. Social Desirability Responses

The original scale that was developed to measure socially desirable responses by respondents in self-report inventories constituted 33 items (Crowne & Marlowe, 1960, cited

in Liebman et al., 2002). It has been validated and used by many behavioral and social science studies. According to Barger (2002), this scale is used to identify artifactual response bias in a wide range of fields, and its importance is underscored by its visibility in respected publications and institutions such as Health Psychology, Journal of the American Medical Association, Journal of Personality and Social Psychology, National Institutes of Health, Psychosomatic Medicine, Science, etc. The instrument has been widely adapted, used, and continues to be popular.

The participants' tendency to respond in a socially desirable manner is assessed by adding up the number of items responded to by the perception of social desirability. The number of socially desirable responses ranges from 0 to 33, with higher scores representing socially desirable responses. Ten items that were assumed to be relevant to the present investigation, in context, were selected by two experts, along with the researcher, during the pilot study.

In the social desirability scale, a participant is required to decide whether the statement is 'true' or 'false' as it suits him/her. This set of items is reported to have good psychometric properties (internal consistency = 0.88, test-retest $r = 0.89$). The English version of the Marlow–Crowne Social Desirability Scale was adapted, translated into Amharic, and used in this study of the pilot phase.

3.9. Instruments Adaptation, Translation, and Content Assessment Processes

The study fully relied on pencil-and-paper data collection instruments. As a result, three main phases (i.e., adaptation, translation, and content validity assessment) were performed to ensure the reliability and validity of the measures. The adapted Amharic versions of the MEIM, TSIS, and CQS were used.

For the measurement of the NI, the original MEIM scale was first adapted by the researcher in light of social psychological theories on collective identities and presented to psychology experts for cross-adaptation and customization of the items to the Ethiopian

context. For the SI and CQ instruments, the researcher first performed the initial measurement adaptation in light of *intelligence* theories in general and the *triarchic theory of intelligence* in particular.

Eight psychology experts and one social anthropology expert with a background in history were employed (see 3.12 for their profile). Conceptual and operational definitions of the construct with its dimensions were presented to the experts.

This was followed by forward and backward translation of the adapted scale, which was originally in English, into the Amharic language first and then back to the English language. Four linguistics experts for this particular task were used (see 3.10.2 & 3.12 for more information). All of them were bilingual, at least, and participated in the translation work. They performed back-and-forth translations of the instruments before the tools were exposed for content validity assessment. The back translation and convergence assessment were performed independently by a team. As a result, modifications to each item's length, wording, grammar, vocabulary, etc., were carefully performed by the experts. Items with long and complex words, double-barreled and seemingly double-negative questions, and jargon words were modified and customized in the back-and-forth translation.

The psychology and social anthropology experts performed a content validity assessment of the instruments presented both in English and the Amharic versions of the scale in general and their items in particular. They were given all the tools and asked to rate each item of the respective scale as "Essential", "Useful but not Essential" or "Nonessential" (see Section 3.10.2 for more about the content rating method). The social anthropology expert was assumed to be an additional asset for the assessment of the NI measure but more particularly for the CQ items. In the adaptation and translation process of the CQS, prominent samples of cultures in Ethiopia were also sampled in a 'spot check' manner on the basis of the recommendation of experts from different cultures. An attempt was made to make the

compositions of the expert to be diverse divers– who were exposed to different cultures in Ethiopia.

3.10. Reliability and Validity of the Instruments

To ensure the quality of the measures and the data obtained by them, issues of reliability and validity should be given significant emphasis. In most cases, valid instruments are also most likely reliable (Bryman & Bell, 2003). The reliability and validity of the instruments are presented below.

3.10.1. Reliability

It is essential that items on a scale be reliable. There are a range of different aspects related to reliability. One of the issues that must be met is the scale's internal consistency. This refers to the degree to which the items that make up the scale are all measuring the same underlying construct. This can be examined via an internal consistency test.

To test the extent to which the measures are reliable and yield consistent results, an internal consistency reliability test of the instruments was carried out during the pilot study phase. The reliability of the measures of the constructs during the main study was also reported. Cronbach's alpha coefficient, which is the most widely used indicator of internal consistency, and the CR, which takes into consideration the loadings of the indicators, were used for a more accurate measure of reliability. Consequently, the summarized Cronbach's alpha and CR coefficients of the measures are depicted in Table 2.

Depending on the nature and purpose of a scale, different levels of reliability values are required and suggested by scholars. Preferably, the Cronbach's alpha coefficient of a scale should be above .7 and not less than .5 for a scale with fewer than 5 items (DeVellis, 2003). Composite reliability is also usually interpreted in the same fashion. Hence, the instruments used in the present research yielded more than the cutoff value, as shown in Table 2.

Inter-item correlations and item–total statistics of the adapted Amharic versions of the MEIM, TSIS, and CQS were examined to identify poorly functioning items during the pilot study. The results of the interitem correlations are reported and appended (see Appendix A, Tables A1 to A5). Except for two items in the MEIM (Exp2 and Exp3) and two items in the TSIS (SS4 and SA7), which were negatively correlated with a few items, the values of the remaining items were strongly positive, implying that the items measured the same underlying attributes of the constructs.

The degree of correlation between each item and the overall item in their respective scales is also depicted to identify items that had a low correlation with the total score. Values $< .3$ are ideally assumed to have measured something different from the scale as a whole. Two items in the MEIM (Exp2 with .077 and Exp3 with .013) and two items in the TSIS (SS4 with .243 and SA7 with .168) were found to have low correlation coefficients with the total score in their respective scales.

On the basis of the results of the internal consistency test and the EFA, these items were found to be poorly functioning items with the lowest loading values. Thus, they were deleted because they did not fit enough with the other items. The reliability coefficients were calculated and reported after the poor items were excluded.

To this end, the adapted Amharic versions of the MEIM, TSIS, and CQS, which comprised 15, 21, and 20 items, respectively, were subjected to reliability analyses during both the pilot and main studies. Two items in the MEIM and two items in the TSIS measures were discarded because they were found to be unfit in the reliability assessment. Consequently, the Cronbach's alpha coefficients of the MEIM, TSIS, and CQS during the pilot study were found to be .90, .91, and .92, respectively.

During the main study, the adapted Amharic versions of the MEIM, TSIS, and CQS, which comprised 13, 19, and 20 items, respectively, were subjected to a reliability analysis.

The Cronbach's alpha coefficients of the MEIM, TSIS, and CQS during the main study were .90, .94, and .92, respectively, demonstrating very good reliability with a sample of Ethiopian public university students (see Table 2 for more detail). Values above .7 are considered acceptable, but values above .8 are preferable (George & Mallery, 2003).

Table 2.

Reliability and Validity of the Measurement Scales: Pilot [Main]

Scale	Pilot Study			Main Study			No. of Items
	α	CR	AVE	α	CR	AVE	
Exploration	.92	.93	.70	.90	.90	.62	8 [6]
Commitment	.93	.92	.64	.92	.92	.63	7 [7]
Overall NI	.91			.90			15 [13]
SIP	.94	.93	.67	.90	.90	.57	7 [7]
SSs	.91	.92	.65	.94	.89	.60	7 [6]
SA	.92	.92	.66	.88	.88	.55	7 [6]
Overall SI	.92			.94			21 [19]
Metacognitive CQ	.82	.84	.57	.81	.81	.53	4 [4]
Cognitive CQ	.87	.86	.51	.89	.87	.55	6 [6]
Motivational CQ	.88	.87	.56	.88	.88	.60	5 [5]
Behavioral CQ	.88	.87	.59	.89	.89	.68	5 [5]
Overall CQ	.92			.92			20 [20]

Note: α = Cronbach's Alpha; CR = composite reliability; AVE = average variance extracted; NI = national identity; SIP = social information processing; SSs = social skills; SA = social awareness; SI = social intelligence; CQ = cultural intelligence.

3.10.2. Validity

The validity of a measurement refers to the extent to which it can measure what it is supposed to measure. There is no one universally accepted clear-cut indicator of a

measurement scale's validity. Among the different types of validity tests, content and construct validities were particularly emphasized and checked in the present study.

Content Validity.

According to Cohen et al. (2005) and Creswell (2009), all instruments used for data collection should be appropriate and relevant for gathering the required information. In the present study, the experts' evaluations and comments and the instruments' validation results through the pilot study were the two most important techniques used to test and validate the different validity facets of the instruments. Besides, comments by the experts about the face validity of the instruments were also made and implemented.

All the instruments were reviewed and evaluated by experts from psychology, social anthropology (with a history background) and linguistics, who have been working in academia at different universities (for a more detailed description of the experts, refer to Section 3.12).

Each expert received a booklet consisting of a description of the study, operational definitions of national identity and its dimensions/factors, general directions/instructions about the task, demographic information about the expert, and a list of 12 items of the NI, 21 items of the SI and 20 items of the CQ constructs. The experts identified few items in the *exploration* subscale to capture the issue of national identity effectively in the context of Ethiopia. Thus, they suggested an additional three items to fully capture the needed attribute of the construct. However, the original seven items of the *commitment* subscale were maintained and adapted. This resulted in the total number of items on the scale being 15. Importantly, the number of items of the MEIM became 15 after this task of the content assessment by the experts but before translation and piloting.

The experts then rated each item on the scale as "Essential," "Useful but not Essential" or "Nonessential." In other words, the experts evaluated how essential and useful they thought

each item was to measure the supposed construct, indicating the degree of relevance an item had: essential = 3, useful but not essential = 2, and nonessential = 1. A booklet of the content assessment of the MEIM by an expert, as an example of showing the specific task, is attached to this dissertation (see Appendix B).

Items rated by the experts as “essential” were directly maintained. Items that were appraised as “useful but not essential” were modified on the basis of the suggested comments. Providentially, no items were rated as “nonessential” by the experts.

Like the language experts, the content raters were bilingual, at least. However, those a few items rated by the experts as “useful but not essential” and received small modifications were scrutinized by one of the language experts for morphological curiosity. Finally, to quantify the experts’ converging consensus, the researcher employed Lawshe’s (1975) content validity ratio formula and guidelines. The formula is as follows:

$$CVR = \frac{ne - \left(\frac{N}{2}\right)}{\frac{N}{2}},$$

where:

ne is the number of panel members indicating the item "essential", and *N* is the total number of panel members (Lawshe, 1975).

According to Lawshe, raters are supposed to evaluate the relevance of an item on a three-point scale ranging from 1 to 3. To determine the retention of an item on the basis of its content validity ratio, critical values as a cutoff are given. An item needs to have a value of .75 to be retained on a scale if it is rated by eight experts (Lawshe, 1975, p. 568).

Consequently, the CVR for each item of the study variable was calculated and found to range from .75 to 1. The CVIs of the items on the MEIM, TSIS, and CQS scales were .91, .94, and .95, respectively (see Appendix C, Tables C1 to C3).

Instruments Validation through Pilot Tests.

In addition to treating the instruments on the basis of the experts' evaluation and comments, all the measurements were tested through piloting. As suggested by Creswell (2009), it is important in research to conduct a small-scale preliminary study to check the relevance and clarity of the contents of the questionnaire as well as the feasibility of the instrument in terms of time and cost. Consequently, by creating two groups, the instruments were piloted on 343 sample participants for the Amharic language version and 286 sample participants for the English language version at DDU and WU during the pilot phase of the study. However, the results of the validity assessment of the English-language version are not reported in this section, as the Amharic language version was found to be more robust and stringent. As the measures were customized to the Ethiopian context, EFA and CFA were conducted to inspect the set of items and the number of factors that influence model fit. Details of the results are presented in chapter four.

Convergent Validity: To assess the degree to which all the items of the factors measured the same underlying construct they were supposed to measure, the researcher examined convergent validity. One criterion for determining convergent validity is the average variance extracted (AVE). According to Hair et al. (2019), the AVE should be greater than .50 to reveal the presence of convergent validity. In the pilot study, the AVEs of the exploration and commitment constructs were .70 and .64, respectively, which indicated convergent validity and showed correlations between the observed factors within each latent variable. The AVEs of the SIP, SSs, and SA constructs were .67, .65, and .66, respectively, which showed convergent validity and exhibited correlations between the observed factors within each latent variable. The AVEs of metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ were .57, .51, .56, and .59, respectively.

Discriminant Validity: To determine the extent to which the variables correlated with their factor rather than with another factor, discriminant validity was examined. Discriminant validity can be tested via various methods. The AVE is one of those methods used for examination. In the pilot study of the NI, the square root of the AVE of the latent variables was .83 and .80, which, in turn, is greater than the correlation between them (i.e., $r = .22$), confirming the discriminant validity of the measurement model. The square roots of the values of the AVEs of the latent variables of the SIP, SSs, and SA were .82, .80, and .81, respectively, which, in turn, are greater than the correlations between them (i.e., .40, .39 & .70), confirming the discriminant validity of the measurement model. The values of the square root of the AVE of the latent variables of metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ were .75, .71, .74, and .77, respectively, which are greater than the correlation coefficients between them ($r = .46$ to $.68$), revealing discriminant validity. Table 2 depicts the indicative values of the reliability and validity of the measures.

3.11. Data Analysis

Both descriptive and inferential statistical analyses were employed. The descriptive statistics and scores of the variables are presented descriptively via tables. The researcher used descriptive statistics basically to present basic information regarding the variables. By employing inferential statistics, inferences about the variable of interest in the population are made.

Data screening and assumptions checking for the statistical analyses were conducted on the univariate and multivariate levels first. The data screening task for multivariate levels, for example, is vital for identifying potential multicollinearity because multivariate tests are sensitive to extremely high correlations among predictor variables (Fidell et al., 2000). Hence, normality, linearity, homoscedasticity, singularity, multicollinearity and multivariate outliers were initially checked during the data screening process and at the beginning of every specific

statistical analysis. To inspect and identify outlying cases, histograms and boxplots were used. By investigating the missing value pattern, multiple imputation with the maximum likelihood method was applied to statistically address some of the missing values created by probable random error.

Exploratory Factor Analyses were employed to test consistency from sample to sample and to inspect the pattern of the items that indicate the already identified underlying factors of the NI, SI, and CQ measures without imposing a priori constraints. Because the factors under each variable have been theoretically assumed to be correlated with each other, oblique rotation was applied.

To investigate and understand the relationship between observed and unobserved variables and, consequently, to test model fit, CFA was used. The dataset of the pilot study was split into two parts to conduct the EFA and CFA on separate and independent data. Additionally, the general data of the main study data were subjected to CFA for robust validation with a larger dataset. In the pilot study, multigroup CFA was used, particularly to test MI between the Amharic- and English-language versions of the NI measure. Partial correlation was also employed during the pilot study to inspect the possible biasing effect on these measures of key variables, as they relied on self-reported responses.

A one-sample t-test was employed to know the level of students' NI, SI, and CQ. The Pearson correlation was used to explore the degree of relationship between variables and to determine whether a linear relationship existed before the predictive model was tested. To determine the proportion of variance in the NI scores explained by the variables of interest only (SI & CQ), multiple regression was used. To assess the degree of prediction of the criterion variable made by the predictor variables with and without demographic variables (i.e., age, sex, family SoE background, and original area of residence), sequential multiple linear regression, particularly, was used. The unique variance in the dependent variable

explained by each of the independent variables was examined. The relative contribution of each block to the model was assessed. The overall model, in terms of its ability to predict the criterion variable, was assessed and reported. Dummy coding was applied to assess the contribution of the categorical predictor variables in the regression model.

To analyze these statistics, IBM SPSS version 25 and AMOS 23 software were used, employing maximum likelihood estimation.

3.12. Overall Research Procedure

In general, the research was carried out in two main phases: a pilot study and a main study. More specifically, however, it went through different stages, including a vast review of related literature initially; developing a plan of action for activities; deciding on the research setting and the target population; dealing with measurement issues; adapting data collection instruments; translating and validating the instruments; determining sample size and sampling strategies; collecting data (twice); analyzing and discussing and reporting; preparing manuscripts for publication; and preparing monographs.

In light of these key activities and general procedures, first, a review of related literature to develop a theoretical background for the problem was performed. In the umbrella of the literature of psychology in general and social psychology in particular, theories, conceptual issues, and empirical results related to the title were reviewed. They have substantially become an integral part of the study, mainly the background, problem statement, objectives, conceptualization and operationalization of the study variables, and review of related literature sections.

Second, on the basis of a review of the vast related literature and measurements, data collection instruments were chosen, adapted, translated, and subjected to content validity examinations by experts before more stringent validation via pilot testing. This was one of the phases in which more time was spent to ensure that valid and reliable instruments were

exposed for piloting. As the study utilized self-reported data collection instruments, forward and backward translations of the scales were performed by using experts, as mentioned in the previous sections. The experts' comments and ratings were so immense that substantial modifications to the tools' items were made. The instruments (both in the Amharic and English language versions) were finally reviewed by a supervisor and became ready for piloting and subsequent refinement through statistical methods (see Appendix D & E).

After these rigorous validation processes were performed, the instruments were finally made ready for data collection for the main study. Before leaving Addis Ababa, nonetheless, the researcher held support letters from AAU (see Appendix F & G) and sent a copy of them to the already contacted assistant data collectors in advance to fix issues such as gaining access to the study sites, obtaining students' list from the registrar office or departments, and scheduling the dates of data collection beforehand. These were performed in March 2022 (for the pilot) and at the end of February 2023 (for the main study).

During both fieldwork times, a modest introduction to the general objective of the study and brief training on the particular data collection task were given to the assistant data collectors before the actual data collection started. At this stage of the data collection, the work officially started by meeting instructors and asking their permission to allow the data collection to be carried out for approximately 20 minutes during their normal classes. Filling out the Amharic language version of the main study questionnaires, indeed, took approximately 23 minutes on average. It was more common during the pilot study, taking approximately 25 minutes on average. The English language version participants took approximately 29 minutes to complete the questionnaires during the pilot study.

This support from the instructors on board was immense because the assisting data collectors knew most of them and were friends. Some of the instructors even helped in the process of drawing the sample participants, facilitating the sessions, and informing their

students to fill in the questionnaires carefully and seriously. This by itself was enormously helpful to obtain the trust of the participants and to obtain quality data from them at the end.

Every questionnaire comprised a separate ‘consent form’ page to be signed by the participants at the front (see Appendix H & I). A general introduction about the aim of the study and specific instructions on the instruments were given orally to the participants at the beginning of each data collection session. To provide more protection and assurance for any potential threats, participants were told to generate a three-digit code in a comprehensive rule set by the research team and to write it down on a blank space provided to it. It was planned to use the code given by the participants later in the data coding process as well for a complete and uniform dataset. However, the codes given by the participants were not found suitable (for example, the same code was generated by different participants), so a new code was ultimately given by the researcher. The data collection was conducted in group sessions, consisting of students with fewer than 20 participants in a classroom for better administration and maximizing the possibility of properly completing questionnaires.

It was initially assumed that the mere data collection of the pilot phase would take two days at each study site, but it actually took four days (from April 4 to April 7, 2022) at DDU and five days (from May 31 to June 4, 2022) at WU. There was an unexpected overlap of exam days with the already scheduled data collection days, especially in WU. Because of the high-temperature nature of Dire Dawa and its surroundings, data collection at DDU was possible only in the morning before 11:00 AM.

The data collection for the main study was conducted between March and May 2023, March 21 to 26 in DDU, March 29 to April 3 in ASTU, April 5 to 8 WkU, and May 15 to 19 in WU.

The data collection tasks in both rounds of fieldwork were performed by the main researcher (with the exception of WkU) and assisting data collectors. During the pilot study’s

data collection, a total of five assistants were involved at both sites. During the main study, eight assistant data collectors were used. Many instructors also participated voluntarily in one way or another in both rounds of fieldwork, but more particularly during the pilot study.

3.13. Ethical Considerations

Priority attention was given to ethical issues. A written permission was obtained from the copyright holders of the CQS instrument. The developers of the MEIM and TSIS have officially described that the instruments can be used for academic purposes and investigations without notifying them or asking permission. The principle of informed consent was obtained from all the participants, as per the ethical standards aligned with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards in the APA. Hence, each participant expressed his/her consent to participate in the study by signing the ‘consent form’. The participants were told to withdraw if they wanted to leave the study at any time (see Appendix H for more details of the terms). The main researcher and assisting data collectors tried to ensure privacy to avoid any potential threats that could be caused by being participants as much as possible. Techniques such as keeping the participants anonymous, employing pseudonyms (generated codes), and ensuring that the data obtained remained confidential and secure were employed to ensure privacy.

Furthermore, attention was given not to intrude into participants' personal preferences and any intention of pressuring them to give responses for the mere sake of obtaining information. An ethical clearance letter from the Research Ethics Committee of Addis Ababa University, College of Education and Behavioral Studies, School of Psychology, was also obtained (see Appendix J).

CHAPTER FOUR

Results

This chapter comprises the results of the two phases of the study, presented in two major parts. In Part One, the results of the pilot study are presented. This section predominantly reports the validation results of the adapted Amharic language versions of the instruments. Given the complexity of accurately measuring the constructs, a substantial portion of the dissertation is dedicated to this validation process. A rigorous approach was employed to ensure appropriateness of the instruments, and the results are reported. The demographic information of the participants is also included. A report on MI or language equivalence, of the NI measure—which was conducted to ensure more robust validation and to select the language version that demonstrated greater measurement accuracy—is incorporated. Intercorrelations among variables are reported to test linearity and to demonstrate the plausibility of prediction in contexts with limited data. The most important lessons learned from the pilot study and applied in the main study are also noted.

Part Two presents the findings of the main study, organized into five key sections. First, the results of the CFAs are reported, providing evidence for the structural validity of the instruments used in the study. Second, descriptive statistics and demographic information of the participants are presented to offer a comprehensive overview of the study sample. Third, the levels of NI, SI, and CQ among the students are examined and discussed. Fourth, the interrelationships among the key variables are explored to identify patterns of association. Finally, in the fifth section, the results of multiple regression analyses are reported, highlighting the extent to which the independent variables predict the dependent variable.

4.1. Results of the Pilot Study

The data for the overall social intelligence measure were found from 343 cases, after which two cases with extreme missing values of 36.4% and 20% were discarded from the

dataset at the initial stage. Two hundred thirty-seven (69%) participants were male, and 105 (31%) were female. One participant did not mention his or her sex. The mean age of the participants was 22.05 years ($SD = 1.30$). Twenty-six participants did not state their age. With respect to the original areas where the participants came from, 133 (38.8%) were from rural areas, and 194 (56.6%) were from urban areas of Ethiopia. Sixteen participants did not respond to the question about their area of residence. With respect to the family socioeconomic background of the students, 35 (10.2%), 56 (16.3%) and 246 (71.7%) participants were from high, low, and medium socioeconomic backgrounds, respectively. Six participants did not state their family socioeconomic status.

In the preliminary data screening stage of the pilot study, many problematic cases and cases that missed items in the respective measures were found. After those cases were discarded and cases that missed below 5% in terms of item-wise were statistically treated via the multiple imputation method, subsequent analyses were conducted. Consequently, the study was conducted on a sample of 343 participants.

After the data screening was completed, the general dataset was subject to assumption checking before factor analysis at the preliminary analysis phase. Significant problems were not observed in this regard. Importantly, the assumptions below were checked after the problematic cases were deleted from the dataset.

4.1.1. Checking for Outliers

To check for outliers, inspection of the histogram and boxplot was performed, and the results are reported herein. There were data points sitting on their own, which indicated outliers, on the histogram. However, they were too few to consider them as potential threats to the subsequent key statistical analyses. As shown in the boxplots (see Appendix K, Figures J1 to K3), nine cases (DDU115, WU329, DDU134, DDU090, DDU108, DDU100, DDU190, DDU180 & WU330) in the NI, seven cases in the SI (DDU134, DDU198, DDU200,

DDU111, DDU202, WU329 & DDU199) and four cases in the CQ (DDU90, DDU134, DDU104 & DDU200) measures deviated from the rest. When such points are identified, some statistical authors suggest changing the value to a less extreme value and including the case in the analysis without allowing the score to distort the statistics (Tabachnick & Fidell, 2007) instead of removing them from the data file.

However, the descriptive statistics (Table 3) can indicate how much these outlying cases are likely to be problematic. The difference between the *mean* and the 5% trimmed mean is an important indicator to determine. If the two mean values are very significantly different, these data points need to be held on for further investigation. Here, the two mean values for NI (50.38 & 50.83), SI (99.89 & 102) and CQ (103.73 & 104.49) cannot be taken as very different, although the SI measure showed a slightly increased difference. The implication, in general, is that the values were not very much different from the remaining distribution. As removing such cases is not advisable, they were retained.

4.1.2. Assessing Normality

According to Gravetter and Wallnau (2004), ‘normality’ is used to describe “a symmetrical, bell-shaped curve, which has the greatest frequency of scores in the middle with smaller frequencies toward the extremes” (p. 48). Normality can be assessed by using different techniques. Numerical methods (skewness and kurtosis indices), graphical methods (boxplots, histograms, P-P plots, and Q-Q plots) and formal normality tests (Kolmogorov–Smirnov tests) were initially used to assess the normality of the data from the pilot study.

Table 3 provides some information regarding the distribution of scores of the continuous variables (i.e., skewness and kurtosis). As the study employed parametric statistical techniques, this information is important for inspection. The skewness value provides an indication of the symmetry of the distribution. Kurtosis, on the other hand, provides information about the ‘peakedness’ of the distribution (Westfall, 214). A skewness and

kurtosis value of zero implies that the distribution is perfectly normal, which is very unlikely in the social sciences, according to scholars.

Positive skewness values indicate that scores are positively skewed, which means that scores are clustered to the left at low values of the graph. The negative skewness values indicate a clustering of scores at the high end of the graph. On the other hand, positive kurtosis values indicate that the distribution is rather peaked (i.e., clustered in the center). Kurtosis values below 0 indicate a distribution that is relatively flat (i.e., too many cases in the extremes) (Tabachnick & Fidell, 2013). They noted that skewness does not make a substantive difference in analyses with reasonably large samples. They added, “Kurtosis can result in an underestimate of the variance, but this risk is also reduced with a large sample (200+ cases)” (Tabachnick & Fidell 2007, p. 80).

Consequently, the data in the current study were found to be relatively normally distributed, with skewness and kurtosis values ranging from -.507 to -1.292 and from -.077 to 1.450 respectively. The skewness and kurtosis values indicated that the data were normally distributed. Hair et al. (2010) noted that skewness between -2 and +2 and kurtosis between -7 and +7 of a dataset are considered normally distributed. Curran et al. (1996) suggested normality thresholds of 2.0 and 7.0 for skewness and kurtosis, respectively, when assessing multivariate normality, such as factor analyses and MANOVA. Auxiliary graphs that show the normality of the scores are appended (see Appendix L, Figures L1 to L3).

Table 3.*Descriptive Statistics (n = 343)*

Variables	N	Minimum	Maximum	Mean	Std.		
					Deviation	Skewness	Kurtosis
Age	317	20	26	22.05	1.30	.445	-.192
Exploration	343	7	30	21.30	4.63	-.661	.354
Commitment	343	8	35	29.09	5.65	-1.292	1.091
Overall NI	343	15	65	50.38	8.49	-.927	.987
SIP	343	8	49	37.65	7.81	-.946	.913
SSs	343	6	42	31.03	7.52	-.908	.758
SA	343	6	42	31.22	6.73	-.659	-.077
Overall SI	343	20	132	99.89	16.64	-.958	1.450
Metacognitive CQ	343	6	28	22.05	4.49	-.912	.627
Cognitive CQ	343	6	42	24.73	7.71	-.507	-.158
Motivational CQ	343	5	35	27.74	6.10	-.987	.551
Behavioral CQ	343	5	35	26.20	6.41	-.843	.520
Overall CQ	343	33	140	103.73	19.62	-.606	.169

Note. NI = national identity; SI = social intelligence; SIP = social information processing; SSs = social skills; SA = social awareness; CQ = cultural intelligence. 5% Trimmed Mean of exploration = 21.25; commitment = 31.59; overall NI = 50.83; SIP = 38.16; SSs = 31.53; SA = 31.52; overall SI = 102; metacognitive CQ = 22.35; cognitive CQ = 28.00; motivational CQ = 28.21; behavioral CQ = 26.62; overall CQ = 104.49

The descriptive statistics above (Table 3) provide information about the NI, SI, and CQ variables with their factors. An important piece of statistical information that is essential for making decisions regarding outliers is the *5% trimmed mean*, as described previously. This value is obtained by removing the top and bottom 5% of cases and then calculating a new mean value (Pallant, 2020). As noted above, by comparing the original means of NI ($M =$

50.38), SI ($M = 99.89$) and CQ ($M = 103.73$) with their new trimmed means of NI (50.83), SI (102) and CQ (104.49), it is possible to see whether those extreme scores had a strong influence on the mean. If these two mean values are very different, investigating these data points further might be necessary. In the present pilot study, the differences were not large. The implication of these results is that there were no many outlying cases that would result in errant data outcomes.

Kolmogorov–Smirnov statistics were also examined to test normality. A nonsignificant result of the Kolmogorov–Smirnov test is usually considered an indication of normality. The Sig. values of the NI, SI, and CQ measures were $p < .05$, suggesting that they did not comply with the assumption. However, this is common in larger samples. The degree of impact was rechecked at the beginning of every specific statistical analysis employed in this study.

4.1.3. Exploratory Factor Analysis

An examination of the factor structure of the variables was performed to check that the factors were meaningfully correlated and represented by all adapted and translated items of the NI, SI, and CQ measures. Consequently, the measures were subjected to EFA.

Prior studies (see Chapter 5, Section 5.1) have suggested that NI is a two-factor structure that comprises exploration and commitment. Social intelligence has been conceived as a three-factor structure that includes SIP, SSs, and SA. Cultural intelligence has also been identified as a four-factor construct, including metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ.

On this basis, the present study in the pilot phase conducted EFA with the aim of validating whether the factor structure of the adapted measures could be consistent with those of previous studies, using a sample of senior undergraduate students in two public university settings in Ethiopia. The results are presented here, followed by an assumption checking report.

Assumption Checking.

The first step in FA, in general, is to assess the suitability of the data for the statistical analysis of factors. Among the most important assumptions to be assessed, sample size, the correlational strength of the items, linearity and significant outliers were emphasized and checked.

There is no common consensus among scholars regarding cutoffs of *sample size* for FA. For example, Gorsuch (1983) and Kline (1994) suggested that at least 100 subjects should be sampled for FA. According to Tabachnick and Fidell (2007), “.... A smaller sample size (e.g., 150 cases) should be sufficient if solutions have several high loading marker variables .80” (p. 613). They concluded that the overall sample size should be 150+ and that there should be a ratio of at least five cases for each of the variables. Other authors argued that it is not the sample size that should be of concern but the ratio of the participants to the items presented. For example, Nunnally (1978) suggested that a 10 to 1 ratio (ten cases for each item) can be sufficient for FA, although some scholars have suggested that a 5 to 1 ratio is adequate for the case in question (e.g., Tabachnick & Fidell 2013).

The current pilot study met the assumption of sample size adequacy for factor analysis, as it included 343 cases and 15 NI, 21 SI and 20 CQ measurement items. According to the KMO model, the index that shows sample adequacy ranges from 0 to 1. Guided by the KMO model, the KMO values of the present pilot study for NI, SI and CQ (after poorly functioning items were discarded) were found to be .925, .869 and .894, respectively, revealing the adequacy of the sample size for the EFA.

Bartlett’s test of sphericity was also performed, and the values were found to be significant. Bartlett’s test of sphericity tests the original correlation matrix as an identity matrix, indicating that the variables are unrelated and therefore unsuitable for structure detection or that they are correlated enough that the correlation matrix diverges significantly

from the identity matrix (Shrestha, 2021). The significant value ($p < .05$) indicates that factor analysis can be conducted on the dataset. In this pilot study, the Bartlett test of sphericity values for all the measures were found to be significant ($p < .05$), indicating that the data were good enough to run EFA (see Appendix M, Table M1).

The other important assumption when running an EFA is *the factorability of the correlation matrix*. This assumption dictates that the correlation matrix should show at least some correlations of $r = \geq .3$. With respect to the strength of the relationships among items (variables), scholars have suggested an examination of the correlation matrix for coefficients $> .3$ (e.g., Tabachnick & Fidell 2013). It is most commonly and widely recommended that the majority of the items' correlation coefficients be $\geq .3$. In the pilot study phase, with the exception of a few items, the majority of items had $\geq .3$ correlations (see Appendix A, Tables A1, A4 & A5). Thus, the specific assumption was not violated.

Because factor analysis is based on correlation, it is assumed that the relationships between the variables are *linear*. Unless there is clear evidence of a curvilinear relationship, authors (e.g., Pallant, 2020) proposed that it is safe to proceed to the analysis provided that an adequate sample size and ratio of cases to variables are attained.

Significant Outliers is the last, but not the least, assumption that was checked in this study and expected to be met to conduct the EFA. Factor analysis can be sensitive to outlying cases, as other multivariate analyses do so. As measures were taken at the initial data clearance and screening phase, extreme outliers were not found at this stage.

Results of the Exploratory Factor Analysis of the National Identity Measure.

In the EFA, two items of the NI measure (Item No. 2 & 4 before they were assigned as Exploration 2 & 3 in their specific NI dimension order in the SPSS) were found to be poor. Their correlation with the majority of the items was found to be negative (see Appendix A, Tables A1 & A3). Their commonality values were found to be very poor, resulting in values

of .030 and .025 for exploration items 2 and 3, respectively. These items were deleted, and significant improvement was shown in the indices of the measure. The total variance explained increased (from 64.085% to 71.224%), and noticeable differences were shown in the factor loading values of the remaining items.

To check and determine how many factors to extract, the Kaiser criterion (Kaiser, 1960) and scree plot (Catell, 1961) were used. By applying Kaiser's criterion, factors that had an eigenvalue of ≥ 1 were maintained. The eigenvalues for each factor are given (see Appendix N, Table N1). As scree plots are visually depicted figures, looking at the shape of the plot would provide important information regarding the factors. Hence, guided by Catell's (1961) scree test, it is observed in the figure (Appendix N, Figure N1) that there was a clear break between the second and third factors.

Table 4.

Factor Loadings of the Rotated Two-Factor Measure of the National Identity Construct (n = 343)

	Factor		Communalities
	1	2	
I have a strong attachment to my Ethiopian nationality	.950		.827
I am happy that I am an Ethiopian	.881		.720
I feel good about my Ethiopian cultural, historical, traditional, etc., backgrounds	.871		.723
I have a lot of pride in my Ethiopian nationality	.848		.705
I have a clear understanding of my Ethiopian nationality and what it means for me	.809		.787
I have a strong sense of belonging to my Ethiopian nationality	.774		.736
I understand pretty well what my Ethiopian nationality group membership means to me	.689		.521
I have spent time trying to find out more about my Ethiopian nationality, such as its history, traditions, customs, etc.		.954	.787
To learn more about my Ethiopian nationality background, I have often talked to people about it		.951	.813
I have explored seeking to know more about cultural issues of my Ethiopian nationality, such as special food, music, dressing, etc.		.820	.706
I have explored more about the historical facts of symbols of my Ethiopian nationality, such as the Ethiopian national flag		.757	.660
I have spent time trying to know the historical facts and cultural practices of other subgroups under Ethiopian nationality membership		.743	.679
I have spent time trying to learn about the festivals of Irreecha, Fichee-Chambalaalla, Ashenda, and so on		.715	.601
I participate in organizations or social groups that include most members of my Ethiopian fellows without considering their specific ethnicity, religion, gender, etc.			.030
I think a lot about how my life will be affected by my Ethiopian national group membership			.025

Note. Extraction Method: Maximum Likelihood; Rotation Method: Promax with Kaiser Normalization. Rotation converged in 3 iterations; Items ≤ 0.4 factor loadings suppressed. 1 = commitment; 2 = exploration.

Maximum likelihood extraction and promax rotation methods were employed. The factor loading structure (Table 4) shows that the items loaded on factor 1 were items 13, 5, 14, 9, 3, 6 and 7. All these items were *Commitment* measurement items of the national identity construct. The items on factor 2 were items 1, 8, 10, 12, 11 and 15. All these items, on the other hand, are the items that measure the *exploration* dimension of the national identity construct. It describes the degree of correlation between the items and the factors in terms of their order of strength of the relationship. Importantly, the factor loading values in the table refer to the EFA results obtained after the two items were deleted. The items are included at the end of the table simply to show the items' content and values and for the mere sake of reporting in general. The EFA results constituted the 13 items of the NI measure.

Table 4 also presents information about how much of the variance in each item was explained. In this case, item number 2 (Exp2) and item number 4 (Exp3), which appear at the end of the table, had poorly loaded communalities, with values of .030 and .025, respectively. Those items had values $< .3$, indicating that the items did not fit enough with the other items in the measure. This implies that these items ought to be discarded from the measure. All the remaining items had values greater than .6. This means that their greater communality values and their strong factor loadings on their respective factors caused the remaining items to be maintained in the measure. However, the two items that showed negative item correlations, in addition to their significantly lowest communality values, needed to be removed to improve the quality of the measure. Removing such items will likely increase the total variance explained as well. As a result, they were removed from the measure.

Therefore, the EFA results of the final 13-item NI measure showed that the commitment items strongly loaded on factor 1 and the exploration items strongly loaded on factor 2, explaining a total of 71.224% of the variance.

Results of Exploratory Factor Analysis of the Social Intelligence Measure.

The 21-item social intelligence measure of the Amharic language version was subjected to EFA. Consequently, two items (SS4 & SA7) were found unfit. They were negatively correlated with all the remaining items. They didn't show acceptable factor loading values. They yielded the lowest commonality values: SS4 (.190) and SA7 (.055). Hence, these items were removed. The EFA results presented below in Table 5 of the rotated three-factor of the SI construct show the values after the deletion of the two items. The items and their values are included in the table for the mere sake of reporting their values. They were not included in the computation of the EFA again; it reveals the result of the 19 SI items.

After these poorly functioning items were removed, the EFA results showed considerable change and progress, with strong loadings of items (see Table 5). The total variance explained increased from 62.515% to 65.531%. Significant differences in the factor loading values of the other items are also shown. The results revealed the presence of three factors in the social intelligence construct. The three factors explained a total of 65.531% of the variance, comprising 34.062%, 19.254%, and 12.215% of the variance, respectively (see Appendix N, Table N2).

Kaiser's criterion and a scree plot were used to check the already determined number of factors that were extracted by previous researchers. On the basis of Kaiser's criterion, factors that had an eigenvalue of ≥ 1 were maintained. The results of the scree test revealed that the slope of the curve levelled off between the third and fourth factors (see Appendix N, Figure N2).

Table 5.

Factor Loadings of the Rotated Three-factor Measure of the Social Intelligence Construct (n = 343)

Items	Factor			Commonalities
	1	2	3	
I can often understand what others are trying to accomplish without the need for them to say anything	.890			.794
I understand others' wishes	.858			.739
I understand other people's feelings	.847			.721
I can predict how others will react to my behavior	.843			.714
I can predict other people's behavior	.828			.687
I can often understand what others mean through their expressions, body language, etc.	.817			.671
I know how my actions will make others feel	.789			.637
I have no difficulties to fit in easily in social situations mostly		.852		.732
I know how to exhibit respect for others in different social situations		.792		.641
I am good at entering new situations and meeting people for the first time		.782		.617
I have no problems getting along with other people mostly		.782		.612
It doesn't take me a very long time to get to know others well mostly		.779		.614
I am good at getting on good terms with new people		.755		.563
People are mostly comfortable with me when I say what I think			.861	.745
I realize it when I offend others or make them feel bad			.827	.684
I am always mindful of my actions thinking seriously about others' reactions toward what I do			.779	.613

Factor Loadings of the Rotated Three-factor Measure of the Social Intelligence Construct
(continued)

Items	Factor			Communalities
	1	2	3	
I am not very surprised with the things people from a different or similar background			.760	.585
I often feel that it is not very difficult to understand others' choices			.748	.563
I can identify predictable and unpredictable people and treat them and/or act accordingly			.704	.509
I often feel uncertain if what I am doing is right around new people		-.446		.190
Other people become angry with me without explaining to me why				.055

Note. Extraction Method: Maximum Likelihood. Rotation Method: Promax with Kaiser Normalization.

Maximum likelihood extraction and promax rotation methods were employed. The rotated solution showed that all individual items of the measure significantly loaded on all the factors. Items 1, 2, 6, 9, 14, 17 and 19 measured the SIP dimension of the SI. That is, all the SIP items strongly loaded on factor 1. Items 4, 7, 10, 12, 15, 18 and 20 measured the SS dimension of the SI. Except for item 4, the SS items strongly loaded on factor 2. Items 3, 5, 8, 11, 13, 16 and 21 measured the SA dimension of the SI. Except for item 8, the remaining SA items strongly loaded on factor 3. There were no items found cross-loading on the factors. In terms of their order of strength of relationship, items 14, 9, 6, 17, 1, 19 and 2 had strong correlations with factor 1; items 7, 20, 10, 12, 15 and 18 had strong correlations with factor 2; and items 11, 16, 3, 5, 21 and 13 had strong correlations with factor 3.

Table 5 also presents the amount of variance explained by each item. The two poor items that were described at the end of the table (SS4 & SA8, which were subsequently encoded as SA7)

yielded unacceptable commonality values of .190 and .055, respectively, indicating that they did not fit with the remaining items in the measure. They also showed negative item correlations. Hence, they were deleted from the measure. All the remaining items had commonality values greater than .5.

In general, the EFA results of the final 19 items of the SI measure revealed that the SI was a three-factor construct: SIP, SSs, and SA. The SIP items strongly loaded on factor 1; the SSs items strongly loaded on factor 2; and the SA items strongly loaded on factor 3.

Result of Exploratory Factor Analysis of the Cultural Intelligence Measure.

Like the NI and SI constructs, the Amharic language version of the CQS, which consists of 20 items, was subjected to EFA.

When Kaiser's criterion and a scree plot were applied, the number of factors that were extracted and determined in previous studies were again identified. Hence, four factors were maintained. The four components yielded eigenvalues of 8.555, 2.058, 1.646 and 1.185, respectively. The four factors individually explained 40.655%, 8.327%, 6.231% and 3.959%, respectively. Hence, the results revealed that the Amharic language version of the CQ measure was a four-factor construct, explaining a total of 59.172% of the variance (see Appendix N, Table N3 & Figure N3).

Table 6.

Factor Loadings of the Rotated Four-factor Measure of the Cultural Intelligence Construct (n = 343)

Items	Factor				Communalities
	1	2	3	4	
I know the arts, crafts, music, and specific holidays of the Wolayta, Harari, Gamo, etc., cultures of Ethiopia	.922				.762
I know the favorite food and the feeding rules associated with in the Amhara, Somali, Hadya, Tigray and Guragie cultures in Ethiopia	.799				.738
I know the rules of dressing, hairstyle, and related cultural practices of the Hammer, Kambata, Afar, etc., cultures in Ethiopia	.793				.627
I know the cultural values, norms and religious beliefs of cultures in Ethiopia such as the Afar, Somali, Siltie, etc.	.668				.594
I know some vocabulary (e.g., greeting words) and rules of communication of languages in Ethiopia such as Guragigna, Oromifa, Tigregna, and so on	.563				.500
I know the legal and economic systems of the cultures in the Northern, Southern, Eastern, Western and Central parts of Ethiopia	.540				.350
I use facial expressions and vocals differently to suit different cross-cultural situations		.824			.637
I vary the rate of my speaking (e.g., pause & silence) when a cross-cultural situation requires it		.797			.616
I change my nonverbal behavior when a cross-cultural situation requires it		.752			.605
I change my verbal behavior (e.g., accent & tone) when a cross-cultural communication requires it		.730			.621

*Factor Loadings of the Rotated Four-factor Measure of the Cultural Intelligence Construct
(continued)*

Items	Factor				Communalities
	1	2	3	4	
I alter my facial expressions when a cross-cultural interaction requires it		.718			.598
I enjoy interacting with people from different cultures			.849		.677
I am curious to learn more and to know better about cultures that are new to me			.845		.715
I am confident that I can socialize with the locals in a culture that is new to me			.832		.664
I enjoy living in cultures that are unfamiliar to me and can adjust myself to deal with the stress associated with it			.517		.485
I am confident that I can get accustomed to the living systems (e.g., shopping conditions) of other cultures in Ethiopia			.490		.573
I try to adjust my cultural knowledge when I interact with people from a culture that is unfamiliar to me				.739	.616
I check the accuracy of my cultural knowledge when I interact with people from different cultures				.628	.480
I am conscious of my cultural knowledge when interacting with people from different cultural backgrounds				.573	.489
I am conscious of the cultural knowledge that I am going to apply at cross-cultural situations and/or interactions				.557	.487

Note. Extraction Method: Maximum Likelihood. Rotation Method: Promax with Kaiser Normalization.

The extraction and rotation methods used were the maximum likelihood and promax methods, respectively. All of the items were found to strongly load with their respective factors (see Table 6). The items loaded on factor 1 were items 3, 5, 6, 8, 9 and 10, all of which measured the cognitive CQ dimension of the CQ. The items on factor 2 were items 12, 13, 15, 17 and 18, all of which measured the behavioral CQ dimension of the CQ. The items loaded on factor 3 were items

11, 14, 16, 19 and 20; all of them measured the motivational CQ dimension of the CQ. The items that loaded on factor 4 were items 1, 2, 4 and 7; all of these items measured the metacognitive CQ dimension of the CQ. In terms of their correlational strength within the factors, items 9, 8, 10, 6, 5 and 3 yielded strong correlations with factor 1. Items 13, 15, 17, 12 and 18 had strong correlations with factor 2. Items 11, 16, 14, 19 and 20 were strongly correlated with factor 3. Items 2, 7, 1 and 4 had strong correlations with factor 4.

The degree of variance explained by each item ranged from .480 (item no. 7 or metacognitive 4) to .762 (item no. 9 or cognitive 5).

4.1.4. Confirmatory Factor Analysis

Following the EFA, CFA was conducted to check and test the plausibility of the multidimensional structure and factor structure of the NI, SI, and CQ constructs. It was conducted to examine the relationships between observed factors and latent variables. The observed indicators for each latent variable were identified, and their correlations were defined by conducting first-order and second-order CFA models. The CFA was performed on the second group of data, which constituted a sample of 173 participants.

Hu and Bentler (1999) recommended that to minimize Type I and Type II errors under various conditions, it is important to use the combination of one of the different types of fit indices, such as absolute fit indices, relative (or comparative) fit indices, parsimony fit indices, and those based on the noncentrality-based parameter. Thus, to determine whether the measurement model would fit the current sample data or not, the relative chi-square test (χ^2/df), goodness-of-fit index (GFI), incremental fit index (IFI), Tucker–Lewis index (TLI), Bentler–Bonett normed fit index (NFI), Bentler’s comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) were used.

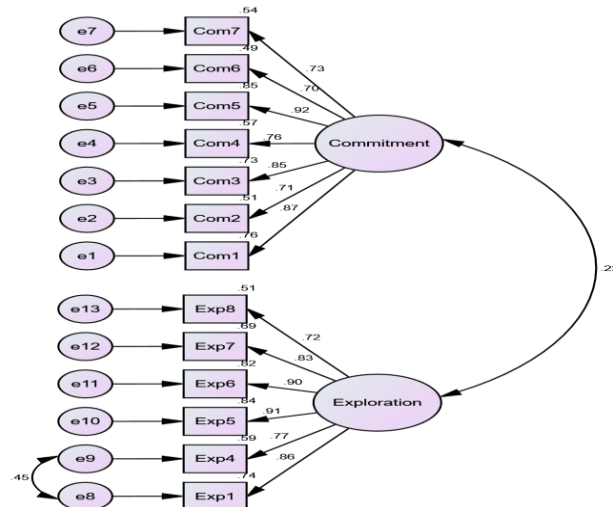
According to Collier (2020) and Hair et al. (2019), CFI, IFI, and TLI values of $\geq .90$ and RMSEA values of $\leq .08$ are considered adequate fits for a measurement model. RMSEA $\leq .05$, SRMR $\leq .08$, and CFI, IFI, and TLI $\geq .95$ values indicate excellent model fit (Browne & Cudeck, 1993; Collier, 2020). In addition, the rule of thumb of the relative chi-square test (χ^2/df) < 3 as an indicator of good model fit was used. Table 7 presents the summarized results of the fit indices of the measurement models.

Result of Confirmatory Factor Analysis of the National Identity Measure.

The adapted Amharic language version of the NI measure, which consists of 13 items, was subjected to confirmatory factor analysis. The results are presented below.

Figure 2.

Measurement Model of the Two-factor National Identity Measure



In the pilot study, the first model yielded values that showed a relatively good model fit, resulting in a relative chi-square test ($\chi^2/df = 2.242$), GFI = .895, IFI = .955, TLI = .944, NFI = .921, CFI = .954, RMSEA = .085, SRMR = .049. However, the RMSEA was $> .08$ ($p < .05$), so respecification of the measurement model was needed. On the basis of the modification indices

recommendations, an error term correlation between items 1 and 4 of the exploration factor was performed (see Figure 2). Consequently, the second model resulted in a relative chi-square test ($\chi^2/df = 1.830$), GFI = .912, IFI = .970, TLI = .963, NFI = .937, CFI = .970, RMSEA = .069 ($p > .05$), SRMR = .037. The variance explained by the observed variables (R^2) ranged from .512 (Exploration item 8) to .854 (Commitment item 5). This means that the explained variance ranged from 51.2% to 85.4%, and the unexplained variance or residual ranged from 14.6% to 48.8%.

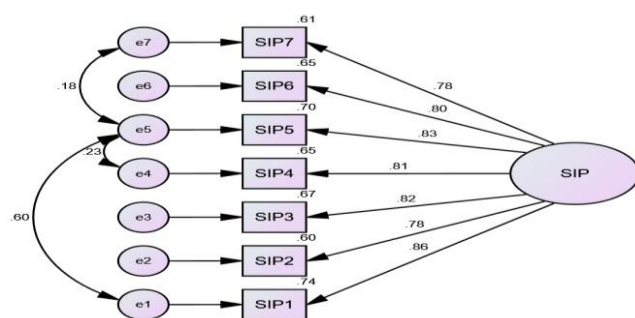
Result of Confirmatory Factor Analysis of the Social Intelligence Measure.

To examine the relationships between the observed factors and latent variables of the adapted Amharic language version of the SI measure, a confirmatory factor analysis was conducted next to the exploratory factor analysis. As noted before, the dataset was first split into two parts. Consequently, the CFA for the SI measure was also conducted on the second cluster of the dataset, which comprised 173 sample participants.

By using a first-order CFA test first, observed items (indicators) for each variable with its metric value were identified. To determine whether the data could fit the proposed measurement model or not, combinations of the various fit indices that were used for the NI measurement above were used.

Figure 3.

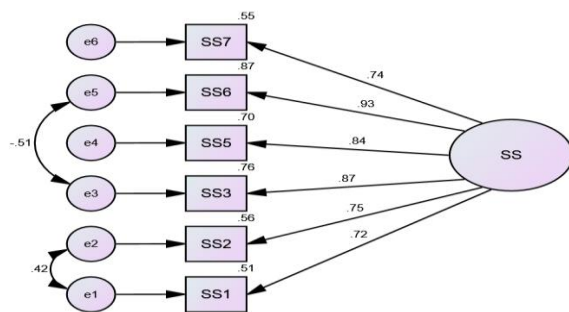
First-Order Measurement Model for Social Information Processing



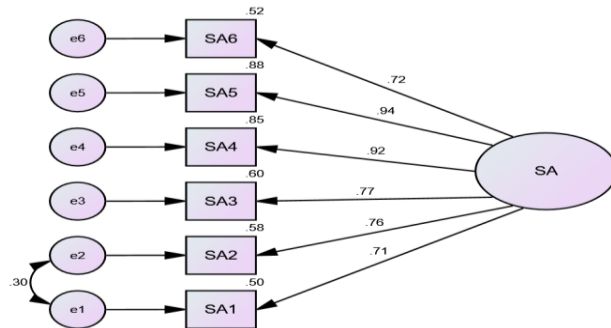
The SIP variable consists of seven items. On the basis of the recommendation of the modification indices, covariance of the error terms was needed. Accordingly, the correlation of the error terms between items 1 and 5 (e1 & e5), items 4 and 5 (e4 & e5) and items 5 and 7 (e5 & e7) was determined (see Figure 3). The model subsequently yielded a relative chi-square test ($\chi^2/df = 1.729$), GFI = .969, IFI = .992, TLI = .984, NFI = .981, CFI = .992, RMSEA = .065, ($p > .05$), SRMR = .021. The standard regression weight ranged from .781 (SIP7) to .858 (SIP1).

Figure 4.

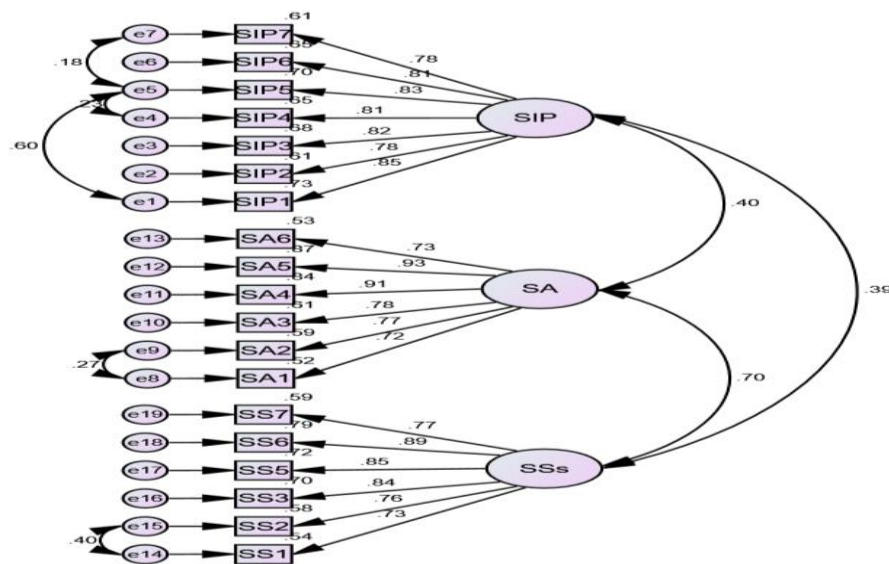
First-Order Measurement Model for Social Skill



The SS measurement model comprises six items. To improve the model, a correlation of error terms for this measurement model was also needed. After correlation of the error terms between items 1 and 2 (e1 & e2) and between items 3 and 6 (e3 & e5), as depicted in Figure 4, a relative chi-square test ($\chi^2/df = 1.237$), GFI = .984, IFI = .998, TLI = .995, NFI = .988, CFI = .998, RMSEA = .037, ($p = .554$), SRMR = .019, was performed. The standard regression weight ranged from .717 (SS1) to .931 (SS6).

Figure 5.*First-Order Measurement Model for Social Awareness*

The first-order measurement model of the SA had six items. For a better model fit, a correlation of error terms between item 1 and item 2 (e1 & e2) was conducted on the basis of the modification indices suggested by AMOS 23. Figure 5 shows a diagram of the measurement model. Consequently, a relative chi-square test was performed ($\chi^2/df = 1.458$), GFI = .978, IFI = .995, TLI = .991, NFI = .985, CFI = .995, RMSEA = .052, ($p = .424$), SRMR = .036. The standard regression weight was found to range from .709 (SA1) to .938 (SA5).

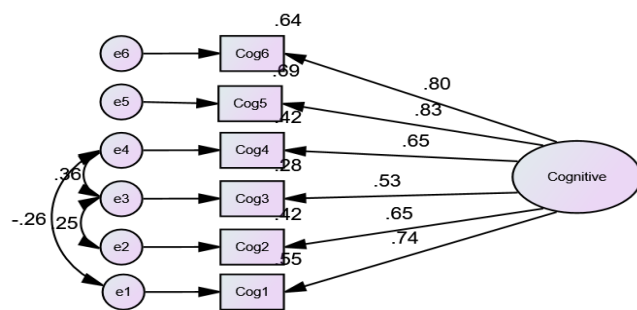
Figure 6.*Diagram of the Three-factor Social Intelligence Measurement Model*

The results of the confirmatory factor analysis of the social intelligence scale were the same as the first-order results of the factors (see Figure 6). It yielded values that indicated a good model fit; a relative chi-square test ($\chi^2/df = 1.430$), IFI = .977, TLI = .972, NFI = .926, CFI = .976, RMSEA = .050, ($p = .486$), SRMR = .054. The variance explained by the observed variables (R^2) ranged from .525 (SA1) to .870 (SA5). In other words, the explained variance ranged from 52.5% to 87%, so the unexplained variance or residual ranged from 13% to 47.8%.

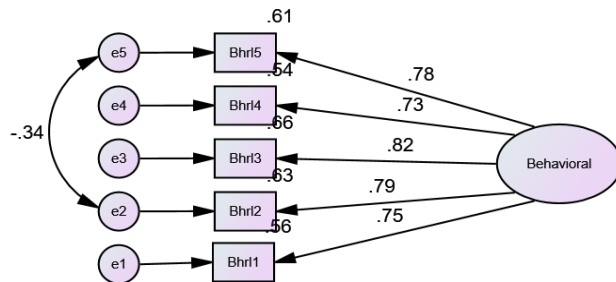
Result of Confirmatory Factor Analysis of the Cultural Intelligence Measure.

Figure 7.

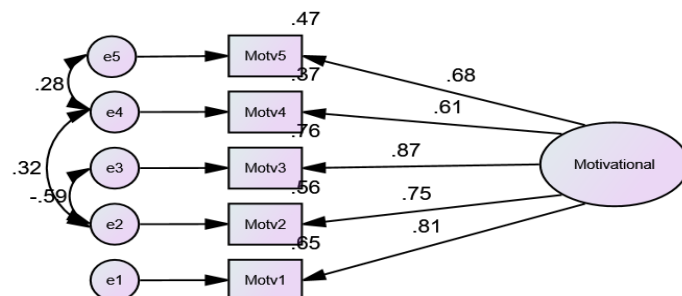
First-Order Measurement Model for Cognitive CQ



The CFA first-order measurement model of the cognitive CQ factor, which constituted six items, resulted in poor model fit, yielding a relative chi-square test ($\chi^2/df = 5.456$), GFI = .917, IFI = .910, TLI = .847, NFI = .892, CFI = .908, RMSEA = .161, ($p = .000$), SRMR = .060. Thus, the error terms were correlated (see Figure 7). The respecified model resulted in a chi-square test ($\chi^2/df = 2.055$), GFI = .976, IFI = .986, TLI = .964, NFI = .973, CFI = .986, RMSEA = .078, ($p = .192$), SRMR = .029. The standard regression weight was found to range from .525 (Cog3) to .829 (Cog5).

Figure 8.*First-Order Measurement Model for Behavioral CQ*

The first-order CFA measurement model of the behavioral CQ factor comprises five items. It produced a relative chi-square test ($\chi^2/df = 2.597$), GFI = .972, IFI = .981, TLI = .961, NFI = .969, CFI = .980, RMSEA = .096, ($p = .099$), SRMR = .029. The value of the RMSEA was slightly greater than the cutoff. Thus, modification was needed (see Figure 8). Consequently, the respecified model resulted in a chi-square test ($\chi^2/df = .971$), GFI = .991, IFI = 1.00, TLI = 1.001, NFI = .991, CFI = 1.00, RMSEA = .000, ($p = .620$), SRMR = .017. The standard regression weight ranged from 0.735 (Bhrl4) to 0.815 (Bhrl3).

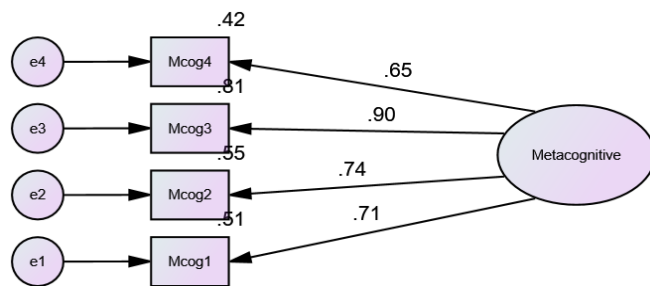
Figure 9.*First-Order Measurement Model for Motivational CQ*

The motivational factor consisted of five items. The first-order measurement model produced a relative chi-square test ($\chi^2/df = 8.532$), GFI = .917, IFI = .908, TLI = .814, NFI = .897, CFI =

.907, RMSEA = .209, ($p = .000$), SRMR = .053. Hence, correlation of the error terms had to be conducted (see Figure 9). Consequently, the respecified model resulted in a chi-square test ($\chi^2/df = 1.037$), GFI = .995, IFI = 1.000, TLI = .999, NFI = .995, CFI = 1.000, RMSEA = .015, ($p = .497$), SRMR = .014. The standard regression weight was found to range from .611 (Motv4) to .869 (Motv3).

Figure 10.

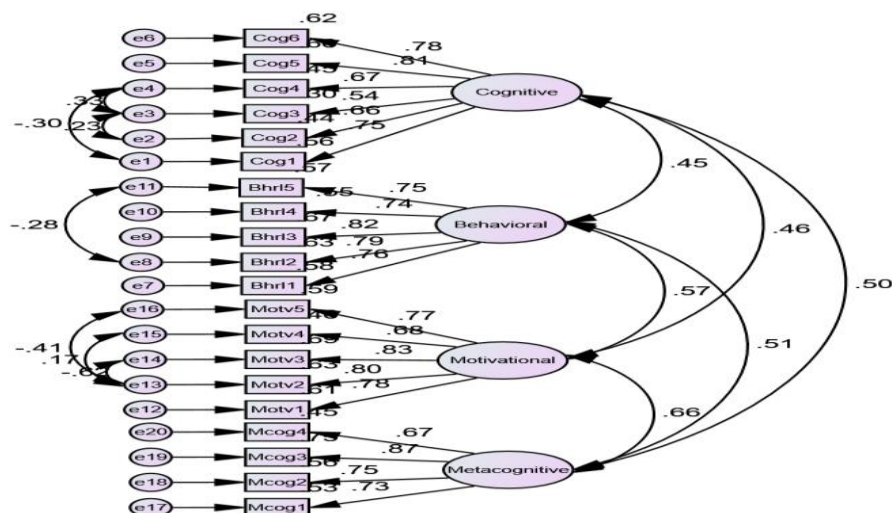
First-Order Measurement Model for Metacognitive CQ



The CFA first-order measurement model of the metacognitive CQ factor, which constituted four items, resulted in an excellent model fit, yielding a relative chi-square test ($\chi^2/df = .553$), GFI = .997, IFI = 1.003, TLI = 1.010, NFI = .996, CFI = 1.000, RMSEA = .000, ($p = .693$), SRMR = .012. Figure 10 depicts the model. The standard regression weight ranged from .647 (Mcog4) to .898 (Mcog3).

Figure 11.

Diagram of the Four-factor Cultural Intelligence Measurement Model



The CFA result of the four-factor cultural intelligence measurement model that comprised 20 items produced a relative chi-square test ($\chi^2/df = 1.677$), IFI = .942, TLI = .928, NFI = .867, CFI = .941, RMSEA = .063, ($p = .060$), SRMR = .066, which indicated a need for respecification. The correlation of the error terms was determined on the basis of the model modification indices (see Figure 11). Consequently, a relative chi-square test ($\chi^2/df = 1.470$), IFI = .974, TLI = .969, NFI = .923, CFI = .974, RMSEA = .052, ($p = .388$), and SRMR = .062 were obtained. The four-factor cultural intelligence measurement model was relatively the same as the results of the first-order CFA of the factors. The variance explained by the observed variables (R^2) ranged from .296 (Cog3) to .751 (Mcog3). That is, the explained variance ranged from 29.6% to 75.1%.

The loadings of the standardized regression weight for the 20 items of cultural intelligence ranged from .544 (Cog3) to .867 (Mcog3). All the correlations among the latent and observed variables were significant ($p < .05$), and the majority of the loadings were greater than .7. All indicator variables significantly loaded on the expected and identified latent variables.

Table 7.*Model Fit Indices and Acceptable Criteria*

Variables	Model Fit Indices Values								Acceptable (Yes/No)
	<i>CMN/DF</i>	<i>CFI</i>	<i>GFI</i>	<i>TLI</i>	<i>IFI</i>	<i>NFI</i>	<i>RMSEA</i>	<i>SRMR</i>	
NI	1.830	.970	.912	.963	.970	.937	.069	.037	Yes
SIP	1.729	.992	.969	.984	.992	.981	.065	.021	Yes
SSs	1.237	.998	.984	.995	.998	.988	.037	.019	Yes
SA	1.458	.995	.978	.991	.995	.985	.052	.036	Yes
Cognitive	2.055	.986	.976	.964	.986	.973	.078	.029	Yes
Behavioral	.971	1.00	.991	1.001	1.00	.991	.000	.017	Yes
Motivational	1.037	1.000	.995	.999	1.000	.995	.015	.014	Yes
Metacognitive	.553	1.000	.997	1.010	1.003	.996	.000	.012	Yes

Note. CMN/DF = Chi-square/degree of freedom, CFI = Comparative Fit Index, GFI = Goodness-of-Fit Index, TLI = Tucker–Lewis Index, NFI = Normed Fit Index, RMSEA = Root Mean Square Error of Approximation, SRMR = Standardized Root Mean Square Residual. NI = national identity, SIP = social information processing, SSs = social skills, SA = social awareness. Acceptable model fit indices for CMN/DF = < 3; CFI, GFI, TLI, IFI, NFI > .9; RMSEA, SRMR < .08.

4.1.5. Measurement Equivalence of the Two Language Versions

Measurement equivalence or invariance between the Amharic and English language versions of the NI measure was conducted on the data of the pilot study obtained from the two groups to ensure that the translated version had the same meaning as the original MEIM. This specific analysis was also used to determine which language version was better for use in the main study. Three hundred forty-three participants in the Amharic version and 286 participants in the English

version participated in the study. The four types of MI (configural, metric, scalar and residual) were examined.

By employing a test of confirmatory factor analysis, the observed indicators (items) for each variable with its metric value were identified. Before the MI test, two CFAs were conducted for the Amharic and English versions. Given that the latent structure was multifactorial (i.e., made up of two factors), the pattern of factors and factor loadings was confirmed by the CFA. Item–factor relationships were also defined. To show the predictive power and the extent to which variations are explained by each item, R-squared values are also given (see Table 8). All values in square brackets in this specific section represent the values for the English version.

To determine whether the current sample data fit the measurement model or not, the relative chi-square test (χ^2/df), CFI, IFI, TLI, RMSEA and SRMR (see Table 9) were used.

Table 8.

Standardized Regression Weights and proportion of variances of the Measure: Amharic [English]

Item	Factor Loading		R^2
	<i>Commitment</i>	<i>Exploration</i>	
2. I have a clear understanding of my Ethiopian nationality	.711 [.674]		.505 [.454]
3. I am happy that I am an Ethiopian	.778 [.712]		.605 [.506]
4. I have a strong sense of belonging to my Ethiopian nationality	.697 [.657]		.486 [.431]
5. I understand pretty well what my Ethiopian nationality group membership means to me	.642 [.625]		.412 [.390]
7. I have a lot of pride in my Ethiopian nationality	.781 [.749]		.610 [.561]
11. I have a strong attachment to my Ethiopian nationality	.757 [.756]		.573 [.571]
12. I feel good about my Ethiopian cultural, historical, traditional, etc., backgrounds	.687 [.666]		.471 [.443]
1. I have spent time trying to find out more about my Ethiopian nationality, such as its history, traditions, customs, etc.		.875 [.586]	.766 [.343]
6. To learn more about my Ethiopian nationality background, I have often talked to other people about it		.682 [.673]	.465 [.452]
8. I have explored seeking to know more about cultural issues of my Ethiopian nationality, such as special food, music, dressing, etc.		.736 [.718]	.541 [.515]
9. I have spent time trying to know the historical facts and cultural practices of other subgroups under Ethiopian nationality membership		.807 [.601]	.651 [.362]
10. I have explored more about the historical facts of symbols of my Ethiopian nationality, such as the Ethiopian national flag		.730 [.749]	.471 [.561]
13. I have spent time trying to learn about the festivals of <i>Irreecha</i> , <i>Fichee-Chambalaalla</i> , <i>Ashenda</i> , and so on		.644 [.674]	.415 [.454]

The variance explained by the observed variables (R^2) for the Amharic version, for example, ranged from .415 (exploration item 13) to .766 (exploration item 1). This means that the

explained variance ranged from 41.5% to 76.6%. For the English version, the variance ranged from .362 (exploration item 9) to .571 (commitment 11). Comparatively, the Amharic versions of the items explained greater variance than did the English versions (see Table 8 for more detail).

Table 9.

Model Fit Indices for the Adapted MEIM (Amharic, $n = 343$; English, $n = 286$)

Model	χ^2	df	χ^2/df	CFI	IFI	TLI	RMSEA	SRMR
A. 2-Factor Amharic Version	140.250	61	2.299	.966	.966	.956	.062	.048
B. 2-Factor English Version	140.942	64	2.202	.945	.945	.933	.065	.051

Note. χ^2 = chi-square; df = degree of freedom; CFI = comparative fit index; IFI = incremental fit index; TLI = Tucker–Lewis index; RMSEA = root-mean-square error of approximation; SRMR = standardized root-mean square residual.

Table 9 depicts the model fitness indices for both the Amharic and English versions of the measure. The model for both versions yielded values of good model fit indices ($\chi^2 = 140.250$; $p < .05$, CFI = .966; IFI = .966; TLI = .956; RMSEA = .062; and SRMR = .048 for the Amharic version) and ($\chi^2 = 140.942$; $p < .05$, CFI = .945; IFI = .945; TLI = .933; RMSEA = .055; and SRMR = .051 for the English version).

Table 10.

Goodness-of Fit Indices and Variations of Statistical Values of the MI for the Amharic and English Versions of the MEIM

Model	χ^2	df	CFI	RMSEA, 90% CI	SRMR	$\Delta\chi^2$	Δdf	ΔCFI	$\Delta RMSEA$	$\Delta SRMR$
Configural	252.157	122	.965	.041 (.034, .048)	.047	-	-	-	-	-
Metric	259.537	133	.966	.039 (.032, .046)	.053	7.38	11	.001	-.002	.006
Scalar	276.841	144	.964	.038 (.032, .045)	.046	17.304	11	-.002	-.001	-.007
Residual	389.423	157	.937	.049 (.043, .055)	.053	112.582	13	-.027	.011	.007
Partial invariance	278.060	155	.967	.036 (.029, .042)	.046	1.219	11	.003	-.002	0

Note. χ^2 = chi-square; df = degree of freedom; CFI = comparative fit index; RMSEA = root-mean-square error of approximation; CI = confidence interval; SRMR = standardized root-mean-square residual; ΔCFI = change in CFI (all values not significant); $\Delta RMSEA$ = change in RMSEA (all values not significant); $\Delta SRMR$ = standardized root-mean-square residual.

Table 10 shows the full results of the examination of measurement invariance. In the *configural invariance* testing of the arrangement across groups, the parameters were freely estimated in each group, resulting in a good general model. All of the paths were statistically significant in each group. The values of the CFI, RMSEA and SRMR were found to be more than adequate, yielding .965, .041 and .047, respectively.

By constraining the factor loadings to make them equal across groups, a model to examine the *metric invariance* was generated next. One approach is to carry out a chi-square difference test, which tests whether the model represents a significantly worse fit to the data than the previous model does (i.e., configural invariance; $\chi^2_{\text{difference}} = \chi^2_{\text{metric}} - \chi^2_{\text{configural}} = 259.537 - 252.157 = 7.38$). The same computation was performed for the degree of freedom; $df_{\text{difference}} =$

$df_{metric} - df_{configural} = 133 - 122 = 11$. This is rooted in the assumption that the model with the equality constraints (i.e., metric invariance) was nested within the configural model so that it is possible to test whether there is a statistically significant reduction in fit as a result of adding the equality constraints. Assuming $df = 11$, $\alpha = .05$, the chi-square test p -value is .76. This demonstrated that there was no statistically significant difference in the chi-square values, confirming that the metric invariance model's assumption holds true.

Another way to test MI is to inspect the differences in values of indices such as the CFI, RMSEA and SRMR between models. A model with a higher CFI is assumed to locate the data more accurately than a model with a lower CFI. When equality constraints are imposed, it is usually expected that the model with the imposed equality constraints fits at least somewhat worse than the model without those constraints. A frequently applied criterion for a nested model is $\Delta CFI \leq -.01$ to determine whether the use of equality constraints leads to a significantly worse fit than the earlier model (without those constraints) (Cheung & Rensvold, 2002). Other researchers have also suggested the use of other alternative fit indices for determination (e.g., $\Delta RMSEA$, $\Delta SRMR$; Meade et al., 2008). Chen (2008) also recommended a criterion of a $-.01$ change in CFI, paired with changes in RMSEA of .015 and SRMR of .030 (for metric invariance) or .015 (for scalar or residual invariance).

For the present metric invariance test, ΔCFI , $\Delta RMSEA$ and $\Delta SRMR$ were found to be .001, -.002 and .006, respectively. The values indicated that the improvement in model fit was not significant with the imposition of the equality constraints. Therefore, the results of the fit indices change with the results of the chi-square test, which shows that the application of the equality constraints results in a nonsignificant drop-in fit. Consequently, it is concluded that metric

invariance was supported. The results generally indicated the presence of metric invariance, inspecting some of those indices of model fitness.

On the basis of the assumption that metric invariance holds, it was checked for *scalar (or strong) invariance*, which is the invariance of intercepts for indicator variables. Essentially, this is a test of whether the item intercepts are consistent/invariant across groups. Without further investigation of the estimates and intercepts, the values of ΔCFI , $\Delta RMSEA$ and $\Delta SRMR$ were found to be -.002, -.001 and -.007, indicating scalar invariance. Nonetheless, a series test of intercepts was performed by relaxing the equality of the constraints to improve the model by determining the intercepts that were somewhat noninvariant and resulted in values of lower model fit indices. The chi-square difference test was used for comparisons. However, a significant difference was not obtained; thus, the baseline scalar invariant model was maintained.

Finally, residual invariance was tested. The changes in RMSEA and SRMR were within acceptable ranges ($\Delta RMSEA = .011$ and $\Delta SRMR = .007$), but the change in CFA was slightly outside the range given as a cutoff, yielding $\Delta CFI = -.027$. Consequently, score tests were performed to test each residual for invariance. The partial invariance model, where the residual variance for ‘Exploration items 1 & 4’ were freely estimated across the groups, resulted in changes in CFA, RMSEA and SRMR ($\Delta CFI = .003$, $\Delta RMSEA = -.002$ and $\Delta SRMR = 0$). On the basis of the less invariant parameters identified, the fit of a partial model was examined, where all factor loadings, intercepts and residuals were constrained equal except the residual variance related to ‘Exploration 1 & 4’, against the model supposing full scalar invariance. Compared with the other models, apart from residual invariance, a significant difference was not observed.

4.1.6. Intercorrelations among Variables

The results in Table 11 below show the intercorrelations between the factors and variables of the study. The correlation table shows that there was no variable that was negatively related to another variable. In terms of the strength of relationships, medium and strong positive correlations between national identity and social and cultural intelligence were found.

Table 11.

Pearson Correlation Coefficient between Factors and Variables ($n = 343$, $p < .05$)

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Exploration	-											
2. Commitment	.55**	-										
3. Metacognitive	.36**	.42**	-									
4. Cognitive	.27**	.27**	.48**	-								
5. Motivational	.33**	.43**	.61**	.48**	-							
6. Behavioral	.26**	.31**	.47**	.45**	.57**	-						
7. SIP	.16**	.18**	.37**	.29**	.30**	.35**	-					
8. SSs	.33**	.32**	.40**	.28**	.48**	.41**	.33**	-				
9. SA	.17**	.09	.23**	.13*	.25**	.22**	.26**	.50**	-			
10. NI	.85**	.91**	.45**	.30**	.44**	.33**	.19**	.37**	.14*	-		
11. CQ	.38**	.44**	.76**	.80**	.82**	.79**	.41**	.49**	.26**	.47**	-	
12. SI	.29**	.26**	.45**	.32**	.46**	.44**	.72**	.81**	.75**	.31**	.52**	-

** . Correlation is significant at the 0.01 level (2-tailed), * . Correlation is significant at the 0.05 level (2-tailed); SIP = social information processing, SSs = social skills, SA = social awareness, NI = national identity, CQ = cultural intelligence, SI = social intelligence.

In particular, social intelligence was found to be positively correlated with national identity ($r = .31$, $p < .01$), and cultural intelligence was found to be positively correlated with national identity ($r = .47$, $p < .01$), indicating that students with greater social and cultural intelligence are likely to have greater national identity. Similarly, social intelligence was found to be positively

correlated with cultural intelligence ($r = .52, p < .01$), indicating that students with greater social intelligence could also have greater cultural intelligence.

Partial Correlation.

This statistical technique is usually performed when we speculate that an additional variable might contaminate the variables of interest. Therefore, by statistically controlling and/or removing the influence of the confounding variable assumed to influence the relationships, it is likely possible to obtain clearer and more truthful data results that would provide an indication of the relationships among our key variables. Accordingly, to control for the possible biasing effect in self-reported measures of the MEIM, TSIS, and CQS, partial correlation was used to explore the relationships among the NI, SI, and CQ constructs during the pilot study phase. That is, the influence of responding in a socially desirable manner was assessed (see Table 12).

Table 12.

Pearson Product-moment Correlations Between National Identity, Social Intelligence, Cultural Intelligence, and Social Desirability ($n = 343$)

Control Variables	Variables	NI	SI	CQ	SDR
None*	NI	-	.31**	.47**	.14
	SI		-	.52**	.14
	CQ				.18
	SDR				-
SDR	NI	-	.30	.45	
	SI		-	.51	
	CQ			-	

*, Zero-order correlations; **, The correlation is significant at the 0.01 level (2-tailed); NI = national identity; SI = social intelligence; CQ = cultural intelligence; SDR = socially desirable responses.

Table 12 provides two different types of information in two sections: the Pearson product–moment correlation between the NI and the SI and CQ (without controlling the SDR) and the correlation between the NI and the SI and CQ (controlling the SDR). When no control variable was added in operation, the correlation between NI and SI was $r = .31$, and the correlation between NI and CQ was $r = .47$. When the SDR variable was included, partial correlations between NI and SI and between NI and CQ were found, with $r_{\text{partial}} = .30$ and $r_{\text{partial}} = .45$, respectively. When each of the two correlation coefficients (.31 with .30) and (.47 with .45) are compared, only a small decrease in the strength of the correlation is obtained. This suggests that the observed relationships between the variables were not due to the influence of responding to the items in a socially desirable manner.

4.2. Lessons Learned from the Pilot Study and Recommendations for the Main Study

The overarching lessons that were assumed to be taken from phase one (pilot study) were achieved: (a) the feasibility of the procedure to achieve the objectives of the study was checked, and (b) the adapted instruments were validated enough to be used for the main study. In addition to these important purposes, decisions on the language version of the instruments were made, and some modifications were made before data collection for the main study, considering the following two particular issues:

First, using the Amharic language version of the instruments was far more worthwhile than the English version was. Apart from the superiority of the psychometric properties shown, approximately one-fifth of the questionnaires were not appropriately filled out.

The researcher has remained speculative of the occurrence that this might be because of language barriers. There were reasons for this judgment; (a) although it was not quantitatively

reported and formally accounted for, many participants asked the meanings of the majority of the items while they were filling out or ticking a mark; (b) many participants were found confusing ‘religion’ with ‘region’ so that they filled in the region where they had come from for the question of religion; and (c) a significant number of participants were notably seen being perplexed on the term “ethnic background” on the background section of the questionnaires so that they filled out unrelated stuff, keeping there were also many participants who declined to describe. However, a greater quality turnaround was found in the equivalent translated Amharic versions of the questionnaires.

Second, examining the levels of NI, SI, and CQ was not initially considered one objective of the study. However, it was suggested that it be relevant to the area in general and to the dissertation in particular. Consequently, it was implemented in the main study.

2.3. Results of the Main Study

4.3.1. Demographic Information and Descriptive Statistics Results

The data were obtained from 441 respondents; 295 males (66.9%) and 138 females (31.3%) participated. Eight of the participants did not describe their sex. The mean age of the participants was 22 years ($SD = 1.255$). Thirty-one participants did not state their age. Two hundred sixty participants (59%) were from urban areas, and 158 (35.8%) were from rural areas of Ethiopia. Twenty-three participants did not mention where they were originally from for the urban–rural question. Concerning family socioeconomic background, 342 (77.6%) were from medium socioeconomic backgrounds, 42 (9.5%) were from low socioeconomic backgrounds, and 35 (7.9%) were from high socioeconomic backgrounds. Twenty-two participants did not describe their family socioeconomic background.

The maximum and minimum values demonstrated that sufficient ranges of diversity and variability in response were obtained (see Table 13). Before the multivariate analysis was conducted, data screening was performed. Some outlying cases and missing values at the preliminary stage of the analysis were found. By inspecting the histogram and boxplot, a few data points were found to be outliers. The values of these data points could not seriously affect the analyses and did not lead to errant data outcomes. Table 13 also depicts the data distribution, presenting the 5% trimmed mean, skewness, and kurtosis values. The difference between the mean and the trimmed mean values of each variable was not large. This implies that the few outlying cases in the dataset were not too far from the rest. The skewness and kurtosis values indicated that the data were normally distributed.

4.3.2. Confirmatory Factor Analyses Results

Confirmatory factor analyses were also conducted in the main study to validate the results obtained in the pilot study with a greater sample size. In this section, the plausibility of the multidimensional structure of the National Identity, Social Intelligence and Cultural Intelligence constructs was tested with a better sample size via CFA. Similarly, in the pilot study, the observed indicators (items) for each variable were identified by conducting a first-order CFA. However, they are not presented here for the sake of avoiding repetitiveness. The model fit indices results of the initial and respecified measurement models of each measure are reported. The CFAs were performed on the dataset, which constituted a sample of 441 senior students in regular undergraduate programs.

The combinations of different types of fit indices, such as absolute fit indices, relative fit indices, parsimony fit indices, and those based on noncentrality-based parameters, were used to determine model fitness. Accordingly, the relative chi-square test (χ^2/df), incremental fit index

(IFI), Tucker–Lewis index (TLI), Bentler–Bonett normed fit index (NFI), Bentler–comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) were used to determine whether the adapted measurement model would fit the current sample data. Standardized estimates (β) and squared multiple correlations (R^2) are also reported to show the weights and proportions of explained variances. In evaluating the measurement model through CFA, Collier (2020) recommends reporting the standardized estimate along with the proportion of explained variance. This approach facilitates the comparison of indicator weights and variance explained.

Confirmatory Factor Analysis Results for National Identity.

In the CFA of the second phase study of national identity, the initial model yielded values of model fit indices that showed a relatively good model fit, resulting in $\chi^2 = 280.381$, $df = 64$, p value = .000, CMIN/DF = 4.381, GFI = .906, IFI = .944, TLI = .944, NFI = .944, CFI = .943, RMSEA = .088, SRMR = .040.

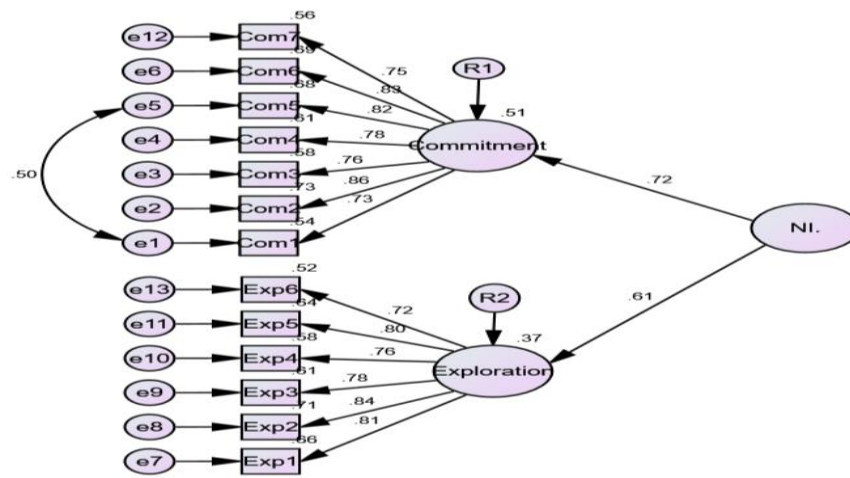
However, the RMSEA was $> .08$, and the CMIN/DF was $> .3$. The correlation of the error terms between items 1 and 5 of the commitment factor was accounted for to improve the model. Consequently, the second model resulted in $\chi^2 = 186.464$, $df = 63$, p value = .000, CMIN/DF = 2.960, GFI = .937, IFI = .968, TLI = .960, NFI = .952, CFI = .968, RMSEA = .067, SRMR = .038.

The measurement model for national identity was found with $\chi^2 = 186.464$, $df = 63$, p value = .000, CMIN/DF = 2.960, GFI = .937, IFI = .968, TLI = .960, NFI = .952, CFI = .968, RMSEA = .067 (90% CI [.056, .078]), SRMR = .038, which indicated a good model fit. The confidence interval suggests that it is possible to be 90% confident that the true RMSEA value lies between .056 and .078, indicating a good level of precision. Furthermore, standardized residual

covariances were evaluated against a criterion value of 2.58 to determine whether the final measurement model was well specified. They fell between -.022 and 1.707. According to Collier (2020), a model with standardized residual covariances < 2.58 is well specified. Hence, the CFA revealed that the national identity measurement model was well specified for undergraduate senior public university students in Ethiopia.

Figure 12.

Measurement Model of the National Identity Construct



All the standardized factor loadings (β) were found to be significant at $p < .001$ and ranged from .72 to .86. The squared multiple correlations (R^2) ranged from .52 (Exploration item 6) to .73 (Commitment item 2). This means that the explained variance ranged from 52% to 73%, which in turn, the unexplained variance or residual ranged from 27% to 48%. Similarly, the standardized factor loading (β) values of the unobserved variables (commitment and exploration) were found to be .72 and .61, respectively (see Figure 12). The variances explained by the unobserved variable (R^2) were found to be .51 (commitment) and .37 (exploration). In general, the factor loadings showed that the indicators highly correlated with their respective factors, suggesting a large effect size, according to Cohen (1988).

The measurement model for national identity contained 91 informational pieces provided by the data (distinct sample moments) and 28 distinct parameters to be estimated. This yielded 63 degrees of freedom (91-28), which indicated an overestimated model. The model consisted of 31 variables: 13 observed and 18 unobserved. It had 30 total regression weights, of which 11 were freely estimated and 19 were fixed. It also comprises 1 covariance and 16 variances, all of which are freely estimated. The measurement model for national identity, in general, had 47 factors; 28 were freely estimated, and 19 were fixed.

Confirmatory Factor Analysis Results for Social Intelligence.

To revalidate the relationships between the observed factors and latent variables of the social intelligence construct, CFA was conducted on the main study data. The initial model for social intelligence resulted in $\chi^2 = 476.472$, $df = 149$, p value = .000, CMIN/DF = 3.198, GFI = .897, IFI = .936, TLI = .926, NFI = .909, CFI = .935, SRMR = .051, and RMSEA = .071 ($p > .05$). For better model fit, covariance between e3 and e4 and between e8 and e9 was performed. Consequently, $\chi^2 = 390.849$, $df = 147$, p value = .000, CMIN/DF = 2.659, GFI = .914, IFI = .952, TLI = .944, NFI = .925, CFI = .952, SRMR = .050, and RMSEA = .061 (90% CI [.054, .069]), indicating a high precision level. The standardized residual covariances were between .014 and 2.00, indicating that the model was well specified.

The loadings of the standardized regression weight (β) for the 19 items of social intelligence were found to range from .66 (social skills item 1) to .85 (social skills item 5).

The variance explained by the observed variables (R^2) ranged from .441 (Social Skills item 1) to .716 (Social Skills item 5), which means that the explained variance ranged from 44.1% to 71.6%, respectively. All the correlations among the latent and observed variables were significant at $p < .001$, and the majority of the loadings were greater than .7, significantly loading

on the expected and identified latent variables. Using the rules of thumb (Tabachnick & Fidell, 2007), all the factor loadings were considered fair to excellent, and all indicator variables significantly loaded on the expected latent variable.

Figure 13.

Measurement Model of the Social Intelligence Construct

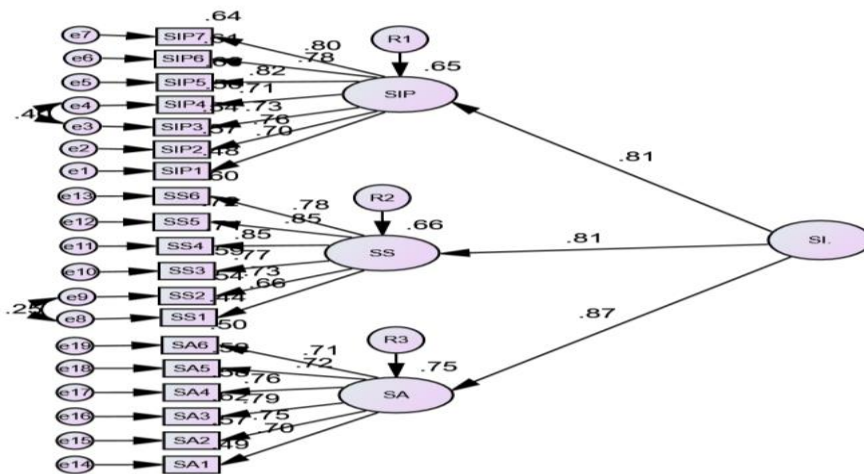


Figure 13 shows the measurement model diagram along with the standardized estimates for the social intelligence measure, which was obtained from AMOS via CFA. All the indicators were reflected by their respective unobserved variables. The unique variances that could not be explained by the unobserved factors were represented by the measurement error (e) of each indicator. The measurement model for social intelligence contains 190 distinct sample moments (or the number of informational pieces provided by the data) and 43 distinct parameters to be estimated. This resulted in 147 (190-43) degrees of freedom, indicating an overestimated model. The model comprised 45 variables, of which 19 were observed variables and 26 were unobserved variables.

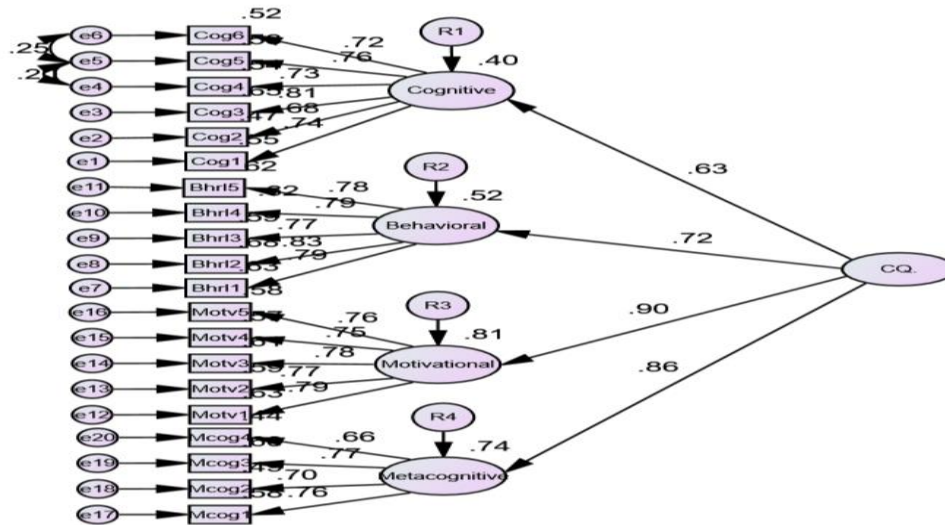
The model had 44 regression weights in total, 18 of which were estimated and 26 of which were fixed. It also consisted of two covariances and 23 variances, all of which were estimated. In general, the final measurement model for social intelligence had 69 factors in total, 43 of which were estimated and 26 of which were fixed.

As shown in Figure 13, the CFA results validated the theoretical underpinnings of the multidimensional notion of social intelligence, which is a combination of the three dimensions of SIP, SSs, and SA (Silvera et al., 2001).

Result of Confirmatory Factor Analysis of the Cultural Intelligence Measure.

The CFA result of the four-factor cultural intelligence measurement model that comprised 20 items produced a $\chi^2 = 441.085$, $df = 164$, p value = .000, $CMIN/DF = 2.690$, $GFI = .905$, $IFI = .944$, $TLI = .935$, $NFI = .944$, $CFI = .944$, $RMSEA = .062$, $SRMR = .047$, which indicated a need for respecification for a better model fit. On the basis of the model modification indices, the correlation of the error terms between items e4 and e5 and between items e5 and e6 was conducted. Consequently, $\chi^2 = 408.979$, $df = 162$, p value = .000, $CMIN/DF = 2.525$, $GFI = .913$, $IFI = .950$, $TLI = .941$, $NFI = .920$, $CFI = .950$, $RMSEA = .059$ (90% CI [.052, .066]), and $SRMR = .044$ were obtained.

All the loadings of the standardized regression weight (β) for the 20 items of the CQ measure were found to be significant at $p < .001$ and ranged from .68 (cognitive CQ item 2) to .82 (behavioral CQ item 2). The majority of the loadings, with the exception of one item (Metacognitive CQ item 4), were greater than .7. The R^2 ranged from .47 (cognitive CQ item 2) to .68 (behavioral CQ item 2). That is, the explained variance ranged from 47% to 68%. All the indicator variables significantly loaded on the expected and identified latent variables (see Figure 14).

Figure 14.*Measurement Model of the Cultural Intelligence Measure*

After the first-order model was examined, a general measurement model test of the CQ was constructed to determine the regression weight of each of the CQ factors toward the CQ construct and to define the general measurement model. The theorized measurement model was overidentified with 210 distinct sample moments and 46 parameters to be estimated with 164 degrees of freedom (210-46). The model comprises 49 variables: 20 observed and 29 unobserved variables. It constituted a total of 48 regression weights, 19 of which were freely estimated and 29 of which were fixed. It constituted two covariances and 25 variances, all of which were freely estimated. The model overall had 75 factors in total, of which 46 were freely estimated and 29 were fixed. The general goodness-of-fit indices for the measurement model revealed that the four-factor model fit the data well. The CFA results validated the theoretical underpinnings of the multidimensional nature of cultural intelligence, which is a combination of the four dimensions of behavioral CQ, cognitive CQ, motivational CQ, and metacognitive CQ (Earley & Ang, 2003).

4.3.3. Results of the Students' Level of National Identity, Social, and Cultural Intelligence

The students' levels of national identity, social intelligence, and cultural intelligence were measured. As discussed before, translated and validated measures of national identity and social and cultural intelligence scales were used. On the basis of the mean values of the previous studies on the constructs, comparisons of the mean values were made to determine the levels. The students exhibited remarkably high levels of national identity and cultural intelligence, as the observed mean scores substantially exceeded the expected mean values (see Table 13). However, the mean score for social intelligence was marginally lower than the anticipated mean value, indicating a significantly abstemious level of the construct.

Table 13.

Students' Level of National Identity, Social and Cultural Intelligence (n = 441)

Variables	No. of items	Min	Max	Mean	Expected Mean	SD	t value	Sig.	Skewness	Kurtosis
NI	13	22	65	51.28	43.42	9.40	13.34	***	-.830	-.064
SI	19	49	133	99.16	102.69	18.50	-2.79	**	-.385	-.570
CQ	20	48	140	101.49	88.64	18.90	10.45	***	-.360	-.377

Levels of significance are at .01 & * significance are at .000 (2-tailed); NI = national identity; SI = social intelligence; CQ = cultural intelligence; 5% Trimmed Mean of NI = 52.43, SI = 99.74, CQ = 102.48.

4.3.4. Results of the Correlation between National Identity and Social and Cultural Intelligence

The relationships between national identity and social and cultural intelligence were examined and are reported below. Table 14 presents the results of the Pearson correlation coefficients with the variables' means and standard deviations. A significant positive correlation was found among students' national identity, social intelligence, and cultural intelligence.

Students' social intelligence was positively correlated with their national identity ($r = .49, p < 0.01$), suggesting that students with higher social intelligence also had a stronger Ethiopian national identity. Similarly, students' cultural intelligence was positively correlated with their national identity ($r = .58, p < 0.01$), indicating that students with greater cultural intelligence had a more pronounced Ethiopian national identity. Furthermore, students' social intelligence was highly positively correlated with their cultural intelligence ($r = .72, p < 0.01$), meaning that more socially intelligent students were also more culturally intelligent.

Table 14.

Variable Means, Standard deviations, and Pearson Correlation Coefficients

Variable	Mean	SD	NI	SI	CQ
1. National Identity (NI)	51.28	9.40	1		
2. Social Intelligence (SI)	99.16	18.50	.49**	1	
3. Cultural Intelligence (CQ)	101.49	18.90	.58**	.72**	1

** The correlation is significant at the 0.01 level (2-tailed), N = 441.

No variable was negatively related to another variable. Concerning the strength of the relationships, medium and high correlations between variables were found. Except for the correlation between social intelligence and national identity, which was found at the highest edge of the medium level, the correlations between national identity and cultural intelligence and between social intelligence and cultural intelligence were found to be high. In this context, different authors suggest different interpretations. Cohen (1988, p. 79–81) suggested that a correlation is small ($r = .10$ to 0.29), medium ($r = .30$ to 0.49), or large ($r = .50$ to 1.0).

4.3.5. Results of Multiple Regression

Multiple regression was used to obtain answers to the following research questions: “How well do the independent variables, in general, predict NI? How do the two independent variables of interest (SI and CQ) independently predict NI? Which is the best predictor of NI among the independent variables? If we control for the possible confounding of demographic variables, is this set of variables still able to predict a significant amount of the variance in NI?”

Therefore, to determine the predictive power of all the independent variables and the key variables of interest to national identity, sequential multiple linear regression was used. The degree of prediction to the criterion variable made by the key predictor variables (SI & CQ) after controlling for sex, age, original area of residence, and family socioeconomic background was also assessed. Each independent variable’s contribution, by controlling one over the other, was also investigated. The variables’ relative contributions were independently assessed. Interpretations of the results are also given, according to the aforementioned research questions.

Before running the regression analysis and presenting its results, the assumptions of multiple regression were checked and reported below.

Sample size is one of the assumptions that need to be met to employ MR. The issue of sample size is usually related to generalizability. Small samples might not allow us to obtain repeatable and generalizable results with other samples and in different settings. Therefore, the question here is ‘How many cases or participants are needed for MR?’

Different authors provide different guidelines concerning the number of cases required for multiple regression. Stevens (1996) says, “For social science research, approximately 15 participants per predictor are needed for a reliable equation” (p. 72). Tabachnick and Fidell (2007) also gave a formula for calculating sample size requirements, taking into account the

number of independent variables that we have; $N > 50 + 8m$ (where m = number of independent variables). In both conditions, the present study satisfied the assumption of sample size, as it was conducted on a sample of 441 participants, which is far greater than those suggested by the authors.

Multicollinearity and *singularity* are also assumptions that should be checked and met before running MR. Multicollinearity is a condition where the IVs are highly correlated (most commonly $\geq .90$), singularity occurs when the IVs are perfectly correlated and one IV is a combination of one or more of the other IVs. In this study, the correlations between the IVs are given in Table 14. Therefore, these specific assumptions were not violated.

However, to investigate multicollinearity further, if it was not manifested in the correlation matrix, a collinearity diagnosis was carried out. Table 15 includes this information. In this table, tolerance and variance inflation factor (VIF) values are given. Tolerance is an indicator of how much of the variability of the specified independent variable is not explained by the other independent variables in the model (Fox, 1991). If this value is $< .1$, it indicates that the correlation of the particular variable with other variables is high, suggesting the likelihood of the presence of multicollinearity (Fox, 1991). The VIF, on the other hand, is just the inverse of the tolerance value (1 divided by tolerance). VIF values above 10 are usually a concern, indicates a serious collinearity problem (e.g., Menard, 2002; Pallant, 2020).

In this study, however, the tolerance value for each independent variable was not less than .1; thus, the multicollinearity assumption was not violated. This is also supported by the VIF values, which were quite below the cutoff point (i.e., 10). Hence, rigorous examination of the assumption of multicollinearity in the present research showed that the assumption was not violated.

Normality, linearity, homoscedasticity, no significant outliers, and the independence of residual assumptions were also checked. They all refer to different aspects of the distribution of scores and relationships between variables. One of the mechanisms of these assumptions can be inspected by examining the normal probability plot (P-P) or scatterplot or histogram of the regression standardized residual, which were obtained as part of the analysis in the MR. In the normal P-P plot, it is expected that the points will lie in a fairly straight diagonal line that runs from the bottom left to the top right. If this result is obtained, it would mean that there are no major deviating points from normality. In the scatterplot of the standardized residuals graph, it is usually expected that the residuals will be more or less rectangularly distributed, with the majority of the scores centered in the center, as the authors suggest. The data in the present study met these assumptions (see Appendix O, Figure O1, O2 & O3).

According to the scatterplot, few outliers were found in the present research. It is usually common to find many outlying residuals if the study is conducted on a large sample size. It may not be necessary to take action to remove them if there are a few. The Mahalanobis distances were further scrutinized. To identify which cases are outliers, however, and to determine the critical chi-square value, the number of IVs in the regression analysis is used because the degrees of freedom are important (Tabachnick & Fidell, 2007). In this research, there are two IVs; therefore, the critical value is 13.82. To determine whether any of the cases had a Mahalanobis distance value greater than 13.82, residual statistics were used and inspected (see Appendix O, Table O1). The maximum value in the data of the current study was 12.249, which did not exceed the cutoff value. Given the sample size of the study, as noted above, it was good not to have significant outliers found.

The casewise diagnostic statistics (see Appendix O, Table O2) present information about unusual or strange cases that have standardized residual values above 3.0 or below -3.0. In a normally distributed sample, only 1% of cases are expected to fall outside this range (Pallant, 2020). In this study, two cases were found in this range: ASTU093 and DDU160, with residual values of -3.295 and -3.099, respectively. The table shows that these cases (ASTU093 & DDU160) recorded 27 and 37 total NI scores, respectively. However, the model-predicted values were 52.05 and 60.62, respectively. The model did not predict those participants' scores very well—they had much less Ethiopian national identification than had been predicted.

To check whether these unusual cases have any unwarranted influence on the model as a whole, Cook's distance in the residual statistics was checked (see Appendix O, Table O1). Cases with values > 1 are assumed to be potential problems (Pallant, 2020). In this study, the maximum value for Cook's distance was .071, indicating that there were no major problems. Therefore, those cases identified as unusual were retained in the analysis. They were not discarded from the analysis, as they had no major effect.

To conclude, from the results found and presented, there were no major violations of the assumptions of MR. Consequently, it was found safe to see and evaluate the model, so the hierarchical and standard and multiple regression analyses are presented hereunder.

Results of Sequential Multiple Regression.

Sequential regression or hierarchical multiple regression was used to address the amount of variance in the independent variables in the prediction of the outcome variable. On the basis of the results of the assumption checking, the data met the assumptions of sufficient sample size, normality, singularity, linearity, homoscedasticity, no multicollinearity, significant outliers, and residual independence. The dependent variable was quantitative and was measured via an

interval scale. Upon examining the scatter plot, a positive linear relationship between the SI, CQ, and NI was found, indicating that there were no significant bivariate outliers, as shown above. The strong correlation observed between SI and CQ cannot be a concern of multicollinearity. The tolerance and variance inflation factor (VIF) values indicate that the correlation is healthy. In this study, the tolerance value for the SI was .474, and for the CQ, it was .477, both of which exceed .1. The VIF values for SI and CQ were found to be 2.111 and 2.098, respectively. Hence, multicollinearity did not pose a concern impacting the overall predictive fit.

The model that included demographic variables, social intelligence (SI), and cultural intelligence (CQ) to predict national identity (NI) was assessed. This evaluation examined the ability of the key variables to predict national identity while controlling for potential confounding factors such as sex, age, original area of residence, and family SoE background.

In a hierarchical MR, variables are introduced in predetermined steps or blocks. In the first block, sex, age, original area of residence, and family socioeconomic background were included in the analysis, allowing for the statistical control of these variables. In the second step, SI was entered as an independent block, enabling an assessment of whether this variable could account for a significant portion of the variance in predicting NI. In the third block, CQ was also entered as an independent block, allowing for the evaluation of its ability to explain any remaining variance in the dependent variable (national identity) after accounting for the effects of the earlier variables. Essentially, the influence of sex, age, original area of residence, and family socioeconomic background was removed to focus on the predictive power of SI and CQ. The results of this analysis are presented below.

Table 15.
Regression Statistics from Sequential Analysis

Variables	R^2			Sig. F change				Tolerance	VIF
	R^2	Change	F		β	t	Sig.		
Model 1	.024	.024	1.903	.093					
Sex					-.104	-2.021	.044	.927	1.079
Age					.096	1.845	.066	.912	1.096
Residence: Urban					-.037	-.689	.491	.875	1.143
SoE background: High					.103	1.555	.121	.568	1.761
SoE background: Medium					.111	1.681	.094	.566	1.768
Model 2	.256	.233	22.623	***					
Sex					-.062	-1.363	.174	.920	1.087
Age					.115	2.517	.012	.911	1.097
Residence: Urban					-.045	-.967	.334	.875	1.143
SoE background: High					.050	.872	.348	.564	1.773
SoE background: Medium					.087	1.509	.132	.565	1.770
Social Intelligence (SI)					.487	11.103	***	.979	1.021
Model 3	.352	.096	30.496	***					
Sex					-.058	-1.363	.174	.920	1.087
Age					.090	2.110	*	.906	1.104
Residence: Urban					-.028	-.641	.522	.872	1.146
SoE background: High					.028	.521	.603	.562	1.778
SoE background: Medium					.063	1.167	.244	.563	1.776
Social Intelligence (SI)					.164	2.785	**	.474	2.111
Cultural Intelligence (CQ					.448	7.620	***	.477	2.098

Note. Dependent variable: National identity. *prediction is significant at .05. **prediction is significant at .01. ***prediction is significant at .000 (2-tailed). SoE = socioeconomic; VIF = variance inflation factor.

Table 15 provides a comprehensive overview of the three models analyzed in this study. Model 1 establishes the foundational framework by incorporating key demographic variables, including sex, age, original area of residence, and socio-economic status (SoE). Building upon this initial framework, Model 2 introduces an additional dimension by integrating social intelligence (SI), thereby encompassing all variables from both blocks—specifically, sex, age, original area of residence, SoE background, and SI. Model 3 further expands this framework by incorporating cultural intelligence (CQ), thus integrating all variables from the previous models, namely, sex, age, original area of residence, SoE background, SI, and CQ.

The R^2 values associated with these models offer insights into the extent to which each configuration explains the variance in national identity (NI). For example, Model 1 accounts for only 2.4% of the variance in NI, as indicated by an R^2 value of .024. However, with the inclusion of social intelligence in Model 2, the explained variance significantly increased to 25.6%. This noteworthy enhancement underscores the importance of SI and illustrates a substantial contribution beyond the variance explained by the initial demographic variables—namely, sex, age, original area of residence, and SoE background. Furthermore, the change in R^2 value provides insight into the percentage of variance in the dependent variable, national identity, that can be specifically attributed to the independent variables, particularly social intelligence (SI). After accounting for demographic factors, SI was found to account for 23.3% of the variance in national identity, highlighting its statistically significant impact ($p < .001$). This finding suggests that SI plays a pivotal role in shaping national identity beyond mere demographic influences.

The analysis then advanced to Model 3, which included all relevant variables of interest, resulting in an explained variance of 35.2%. Within this model, cultural intelligence (CQ) emerged as a key factor, contributing an additional 9.6% increase in the coefficient of

determination (R^2) after controlling for previously examined variables, including sex, age, original area of residence, SoE background, and SI. This substantial increase was statistically significant, indicating a meaningful difference at a high level of confidence ($p < .001$).

To delve deeper into how each variable influenced the final prediction, the study examined the independent variables using the comprehensive results from Model 3. For that, the standardized coefficients of the *beta* values were evaluated. This means that the values of each of the variables were standardized (i.e., converted to the same scale) so that comparison was possible. The analysis highlighted those three variables—age, social intelligence, and cultural intelligence—significantly contributed to the prediction of national identity ($p < .05$). Cultural intelligence stood out with the highest unique contribution ($\beta = .448, t = 7.620, p < .001$), showing a strong influence. While social intelligence had the second highest unique contribution ($\beta = .164, t = 2.785, p < .01$), age had the least significant contribution ($\beta = .090, t = 2.110, p < .05$) to the prediction of national identity. This means that CQ made the strongest unique contribution to explaining national identity when the variance explained by the other variable in the model was controlled for. However, both SI and CQ were found to make statistically significant contributions to the prediction of national identity, indicating that there was no overlap with each other in the model. The remaining variables in the equation did not yield significant contributions.

Another important insight derived from the standardized beta coefficients in the regression analysis is their role in indicating the relative consequence of each independent variable on the dependent variable. Specifically, standardized beta values reveal how many standard deviations the dependent variable is expected to change for each one standard deviation increase in an independent variable, assuming all other variables are held constant.

In this analysis, the standardized beta coefficient for Social Intelligence (SI) was found to be .164. This means that for every one standard deviation increase in SI—equivalent to an 18.50-point rise—National Identity (NI) is expected to increase by .164 standard deviations. Given that the standard deviation of NI is 9.40, this translates to an actual change of 1.545 units in NI (i.e., $.164 \times 9.40 = 1.545$). In other words, when a participant's SI score increases by 18.50 points, their NI score is predicted to increase by approximately 1.545 points, provided that other variables remain constant.

Similarly, the standardized beta value for Cultural Intelligence (CQ) was calculated as .448, indicating a stronger relationship with NI than SI. This means that a one standard deviation increase in CQ—which corresponds to an 18.90-point rise—is associated with a .448 standard deviation increase in NI. Again, using the NI standard deviation of 9.40, this results in an estimated increase of 4.211 points in NI ($.448 \times 9.40 = 4.211$). Thus, for every 18.90-point increase in CQ, the NI score is expected to increase by around 4.211 points, assuming all other influencing factors are held constant.

It is important to note that these interpretations are valid only under the assumption that all other variables in the model are statistically controlled or held constant. This allows for a clearer understanding of the isolated impact of each predictor variable (SI and CQ) on the outcome variable (NI).

In summary, the overall model demonstrated a high level of statistical significance, as evidenced by an F-value of 58.071 with 7 and 393 degrees of freedom $F(7, 393) = 58.071, p < .001$, indicating that it effectively accounts for a substantial portion of the variance within the data. However, it is crucial to underline that while demographic variables provide essential contextual background, they did not significantly contribute to predicting national identity, as

shown by an F-value of 1.903 with 5 and 395 degrees of freedom $F(5, 395) = 1.903, p > .05$), indicating a failure to reach statistical significance.

Results of Standard Multiple Regression.

To determine the independent contribution of SI and CQ, a standard multiple regression was used. In this case, these variables were entered into the model simultaneously. The results indicated how this set of variables predicted NI and how much unique variance each variable explained in NI. Although the contributions of these variables were already examined through the sequential regression analysis described earlier, this particular analysis was conducted to see if significant differences in model performance could arise due to the chosen statistical method.

Table 16.

Regression Statistics from Standard Multiple Regression

variables	R		Beta			
	R	Square	F		t	Sig.
Social Intelligence (SI)	.583 ^a	.340	113.045	.154	2.763	**
Cultural Intelligence (CQ)				.462	8.278	***

Note. Dependent variable: National identity; * $p < .05$, ** $p < .01$ & *** $p < .001$ (2-tailed).

Table 16 presents a summary of the regression model of the standard MR. The results show that social and cultural intelligence contribute to national identity ($R^2 = .340, F = 113.045, p < .001$), explaining 34% of the variance. Both predictor variables were found to be significant predictors of the outcome variable, resulting in social intelligence ($\beta = .154, t = 2.763, p < .01$) and cultural intelligence ($\beta = .462, t = 8.278, p < .001$). Compared with social intelligence, cultural intelligence had a greater contribution to national identity.

The values presented by the sequential and standard multiple regression methods are not very different. Using the former method, the model predicted 32.8%, and the latter method predicted 34% of the variance. Concerning the variables' contribution to the prediction of the outcome variable, CQ contributed 44.8% in the sequential method and 46.2% in the standard method. Social intelligence contributed 16.4% when the sequential method was used and 15.4% when the standard method was used.

Table 17.

Regression Statistics of Factors

Variables	Model 1			Model 2		
	<i>B</i>	<i>SE</i>	β	<i>B</i>	<i>SE</i>	β
Sex	-2.026	1.003	-.104*	-1.037	.815	-.053
Age	.715	.387	.096	.479	.310	.064
Residence: Urban	-.704	1.023	-.037	-.718	.816	-.037
SoE Background: High	3.460	2.225	.103	1.396	1.779	.041
SoE Background: Medium	2.676	1.592	.111	1.725	1.271	.072
Metacognitive				.416	.125	.188**
Cognitive				-.031	.060	-.024
Motivational				.553	.102	.331***
Behavioral				.152	.081	.102
SIP				.006	.072	.005
SSs				.125	.077	.095
SA				.036	.086	.025
R^2			.024			.352***
R^2 Change						.328***
F			1.903			30.496***

* $p < .05$, ** $p < .01$ & *** $p < .001$; B = unstandardized beta, SE = standard error, β = standardized beta; SoE = socioeconomic background, SIP = social information processing, SSs = social skills, SA = social awareness.

To identify which component among the factors of Social Intelligence (SI) and Cultural Intelligence (CQ) made the most substantial contribution to predicting national identity, an additional multiple regression analysis was performed. This analysis aimed to determine the relative predictive power of the individual dimensions within SI and CQ. The results revealed that the metacognitive and motivational dimensions made statistically significant contributions to the prediction of national identity. Specifically, the metacognitive component accounted for 18.8% of the variance in national identity scores, indicating a notable relationship between individuals' awareness and control over their cultural thought processes and their sense of national identity. Even more prominently, the motivational component explained 33.1% of the variance, suggesting that individuals' interest, drive, and confidence in functioning in culturally diverse settings are strongly linked to their identification with national identity. These results underscore the unique and substantial role these two dimensions play in shaping individuals' national identification.

CHAPTER FIVE

Discussion

The study examined the influence of social intelligence (SI) and cultural intelligence (CQ) on national identity (NI) within Ethiopian universities, specifically focusing on senior undergraduate students. This chapter presents the findings of the study and addresses the research questions introduced at the outset. It also includes a brief overview of the validation process conducted to ensure the reliability and accuracy of the data collected. Following this, the chapter provides a comprehensive discussion of the predictive results, highlighting the relationships among the variables and their implications for understanding national identity in the university context.

5.1. Instruments' Validations

To collect the data, adapted instruments that underwent rigorous validation procedures were employed. The validation process included assessments of item stability and patterns, factor structure, model fit, reliability, and the overall construct validity of the measures for NI, SI, and CQ. A pilot study was conducted to ensure that the instruments were appropriate for the target context—an essential step when using adapted tools. The results presented in Chapter Four are discussed below.

5.1.1. The Amharic Version of the Ethiopian National Identity Measure

One of the most widely used measures of collective identity, including national identity, is the Multigroup Ethnic Identity Measure (MEIM) developed by Phinney (1992). It has since undergone revisions and been tested across various settings (e.g., Roberts et al., 1999; Phinney & Ong, 2007; Yoon, 2011). While alternative measures like the Ethnic Identity Scale (EIS) by

Umaña-Taylor et al. (2004) have been proposed, their substantive differences from the MEIM are minimal (Cokley, 2007).

Originally designed to assess ethnic identity development in adolescents and young adults, the MEIM is suitable for individuals aged 12 and above. It has demonstrated strong reliability (typically $\alpha > .80$) across diverse populations. Roberts et al. (1999) identified two underlying factors through factor analysis: *exploration* (a developmental and cognitive component) and *commitment* (an affective and attitudinal component). The current 12-item version includes five items on exploration and seven on commitment, rated on a 5-point Likert scale.

For three basic reasons, the MEIM (Roberts et al., 1999) was preferred for the current study. The first is that most measures address specific ethnic or national groups, so they use group-specific instruments (e.g., Felix-Ortiz et al., 1994; Suinn et al., 1992). In contrast, the MEIM was designed in a way that would enable the assessment of collective identities across diverse ethnic and national groups. Content specific to particular groups, such as cultural values, beliefs, and norms, was not included (Phinney & Ong, 2007). The second important reason why MEIM was chosen for this study was because of its openness and flexibility. The developers of the measure underscored that, depending on the situation, their measure "can be complemented by additional measures" (Phinney & Ong, 2007, p. 28). Third, the instrument assesses the core components of social identity, which are assumed to be common across all ethnic groups of a nation, and more importantly, it is founded on the social identity theory of Tajfel and Turner (1986). For more details about the instrument and its adaptation, see Chapter Three, Section 3.8.1. & 3.9.

In the present study, the 15 items of the adapted NI measure were subjected to EFA to determine the pattern of the items and the stability of the factors in a new sample. The EFA results reaffirmed that national identity is a two-factor construct: exploration and commitment.

This result is consistent with those of previous studies on the construct (e.g., Gaines et al., 2013; Maehler et al., 2019; Musso et al., 2017; Phinney & Ong, 2007; Roberts et al., 1999; Schwartz et al., 2012). The items were not cross-loaded, and the majority of the correlations between items and factors were strong. When two poor items were removed, the quality of the measure improved.

Confirmatory factor analysis was also used to examine model fitness by combining the different types of fit indices. The results revealed that all the observed variables were significantly represented by their latent variables and that good model fit was attained. However, an overlap between items 1 and 4 of the exploration construct was found at the pilot stage. The items read "I have spent time trying to find out more about my Ethiopian nationality, such as its history, traditions, customs, etc." and "To learn more about my Ethiopian nationality background, I have often talked to other people about it." Two hypothetical explanations can be given for this: (a) it seems that these two items measure a similar notion of identity exploration, and (b) it might trigger questions regarding identity exploration by individuals themselves independently and by agents.

The results, in general, revealed that national identity is a two-factor construct and that the Amharic language version is a reliable and valid measure.

5.1.2. The Amharic Version of the Social Intelligence Measure

According to the review of the extant literature, there are limited options for instruments to examine social intelligence, but those few can generally be classified into three broad categories: methods based on achievement characteristics, methods based on evaluation by others, and methods based on self-evaluation. Two main problems are commonly associated with the first two methods: (a) they are time-consuming and difficult to administer, and (b) they are usually

not correlated with one another (Wong et al., 1995). Different explanations have been given for these inconsistencies in general, for example, low reliability among many nonverbal methods and disagreements among ratters for measuring the construct (Miller & Ross, 1975).

The Tromsø Social Intelligence Scale (TSIS) has been widely used as a self-report measure in recent social intelligence (SI) studies. In this study, the TSIS was adapted and validated to align with the research objectives. Exploratory Factor Analysis (EFA) confirmed the three-factor structure of SI—Social Information Processing (SIP), Social Skills (SSs), and Social Awareness (SA)—consistent with previous findings (e.g., Chater et al., 2023; Dorgan & Cetin, 2009; Frankovsky & Birkner, 2014; Kyoung et al., 2019). Items loaded cleanly onto their respective factors, with strong inter-item correlations, though two poorly performing items were removed to improve measurement quality.

Subsequently, CFA was conducted to assess model fit using multiple fit indices. Overlapping content was observed between certain items within the SIP, SSs, and SA factors (e.g., SIP1 & SIP5; SS1 & SS2; SA1 & SA2). To achieve an acceptable model fit, error terms between overlapping items within their respective factors were correlated.

The items that overlapped under the SIP are "I can predict other people's behavior" (SIP1) and "I can often understand what others are trying to accomplish without the need for them to say anything" (SIP5). The supposition that could be given as a hypothetical explanation for this overlap is that there seemed to be a similar interpretation of 'prediction' by the participants, regardless of the notion of prediction that the two items were assumed to measure distinctively. An overlap between items 4 and 5 was also found. Item 4 reads "I understand others' wishes" (SIP4). It seemed that the participants understood this item in a similar way to item five. Item five again was found to overlap with item seven, which was read as "I can often understand what

others mean through their expressions, body language, etc." (SIP7). However, cross-validation of these items in a different dataset would be important for future studies in this area.

In the SSs factor, the overlapping items include "I know how to exhibit respect for others in different social situations" (SS1) and "I am good at entering new situations and meeting people for the first time" (SS2). The hypothetical explanation for the overlap between these two items of the SS factor is that there seems to be the same understanding of showing respect for others and being in new situations, although the situations would be different. In the SA factor, the overlapping items read as "I am always mindful of my actions thinking seriously about others' reactions toward what I do" (SA1) and "I am not very surprised with the things people from a different or similar background" (SA2). The possible supposition for this overlap is that because people are very concerned about their behaviors and actions toward others, they would be less amazed by people's different actions that arise from differences in backgrounds. Afterwards, the CFA results revealed that all the observed variables were significantly represented by their latent variables, so a good model fit was obtained.

The overall results of the study, in general, revealed that the Tromso Social Intelligence Scale (TSIS) in the Amharic version was reliable and valid enough.

5.1.3. The Amharic Version of the Cultural Intelligence Measure

The test of validation of the 20-item CQS revealed a four-factor structure similar to that of the original CQS, which included cognitive CQ, behavioral CQ, motivational CQ, and metacognitive CQ. The four-factor structure was replicated across multinational samples (e.g., Shannon & Begley, 2008; Shokef & Erez, 2008; Ward et al., 2009) and multiple countries, including India (Jyoti & Kour, 2015), Korea (Moon, 2010a), the Philippines (Presbitero, 2016),

Turkey (Sahin et al., 2013), and Saudi Arabia (Al-Dossary, 2016). Across studies, the CQS has shown good internal consistency reliability.

All the items were found to have high loading values for their respective factors. There were no cross-loadings either. The results of the CFA also revealed that the four CQ factors demonstrated acceptable model fit. However, in the cognitive CQ factor, item 1 (Cog1) was found to overlap with item 4 (Cog4). Item 3 (Cog3) was slightly confounded with item 2 (Cog2) and item 4. The items read "I know the legal and economic systems of the cultures in the northern, southern, eastern, western and central parts of Ethiopia" (Cog1) and "I know the favorite food and the feeding rules associated with the Amhara, Somali, Hadya, Tigray and Guragie cultures in Ethiopia" (Cog4). The possible hypothetical explanation for this overlap could be attributed to the convergence between places and cultures. It seems that if the participants understood the legal and economic systems of the cultures in the northern, southern, eastern, western, and central parts of Ethiopia, they would probably know the favorite food and the feeding rules in these areas. This is because the ethnic groups mentioned in item four reside in the northern, southern, and eastern parts of Ethiopia.

Item 3 of the cognitive CQ dimension, "I know the cultural values, norms and religious beliefs of cultures in Ethiopia such as the Afar, Somali, Siltie, etc." (Cog3), was confounded with item 2, "I know some vocabulary (e.g., greeting words) and rules of communication of languages in Ethiopia such as Guragigna, Oromifa, Tigregna, and so on", with item 4 stated above. The probable explanation for the overlap between these items could be attributed to the possible relationships among the participants and the cultural values, norms, religious beliefs, and vocabularies of others.

In the behavioral CQ dimension, items 2 (Bhrl2) and 5 (Bhrl5) were found to overlap with each other. They read as "I use facial expressions and vocals differently to suit different cross-cultural situations" and "I alter my facial expressions when a cross-cultural interaction requires it", respectively. The tentative hypothetical explanation for these items' overlap could be that the items measured the notion of facial expressions and vocals similarly.

In the motivational CQ dimension, item 2 was found to overlap with items 3, 4, and 5. That is, item 2, "I am confident that I can socialize with the locals in a culture that is new to me", was confounded with item 3, "I am curious to learn more and to know better about cultures that are new to me"; item 4, "I enjoy living in cultures that are unfamiliar to me and can adjust myself to deal with the stress associated with it"; and item 5, "I am confident that I can get accustomed to the living systems (e.g., shopping conditions) of other cultures in Ethiopia." The possible tentative description for the overlap between this single item (i.e., item 2) and these three items (i.e., items 3, 4 & 5) could be because it constituted a measure of self-assurance related to motivation to adapt to new cultures, although all the items were supposed to measure distinctive attributes of self-assurance motives.

To conclude, all the items that showed overlap need to be exposed for cross-validation studies in a different dataset to come to a reliable and plausible conclusion. Future studies need to consider this topic.

5.1.4. Measurement Equivalence of the Amharic and English Language Versions of the National Identity Measure

To determine the more robust measure from the two language versions and subsequently choose the better one for the study purposes, a test of measurement invariance or equivalence was conducted on the NI measure during the piloting. Below, the results are discussed.

Measurement invariance (MI) can be tested via CFA. To test measurement invariance, four basic steps were described by Widaman and Reise (1997). They are configural, weak factorial (metric), strong (Scalar), and strict (residual or invariant uniqueness). Diane and Marc (2016) also summarized the four measurement invariance steps considered as (1) configural or equivalence of model form; (2) metric or weak factorial or equivalence of factor loadings; (3) scalar or strong factorial or equivalence of item intercepts or thresholds; and (4) residual or strict or invariant uniqueness or equivalence of item residuals.

Configural invariance is a test of whether the constructs have the same pattern of free and fixed loadings across groups. If configural invariance is not met, it can be concluded that the assessment tool does not measure the same construct across groups.

Metric invariance is considered satisfied when all item factor loadings are equal between groups. Metric invariance means that each item contributes to the latent factor to an analogous degree across groups. To make a meaningful comparison of predictive associations between groups, metric equivalence is needed.

The third step is scalar invariance, which is satisfied when every item in each group exhibits the same point of origin (i.e., intercept) across the groups; this level of equivalence is necessary for comparing group means (Chen, 2008). When scalar invariance is met, all the mean differences in the shared variance of the items are captured by the mean differences in the latent factor.

The final step in the MI test is residual invariance, which means that the error variances across groups are similar. According to Diane and Putnick (2016), residual invariance means that the sum of specific variance (variance of the item that is not shared with the factor) and error variance (measurement error) is similar across groups. They further noted that "...there could be

more measurement error and less specific variance in one group than another, and residual invariance could still be supported if the totals of these two components were similar" (p. 6). Although testing residual invariance is important for full factorial invariance, according to Vandenberg and Lance (2000), it is not a prerequisite for testing mean differences because the residuals are not part of the latent factor, so invariance of the item residuals is inconsequential to the interpretation of latent mean differences.

Consequently, the present study conducted five series of analyses to reach a conclusion regarding MI between the Amharic and English language versions of the NI measure. First, data screening and assumptions checking for the multivariate levels of statistical analyses in each group of the dataset were carried out. A few outlying cases were found. However, they were not excluded from the multivariate analyses because they were not problematic cases. Hence, normality, linearity and homoscedasticity, singularity, multicollinearity, and multivariate outliers were checked. Second, by employing descriptive statistics, scores of the key variables and demographic information were analyzed and presented descriptively via percentages and means. Third, correlational analysis was employed to obtain an overview of poor items and subsequently determine the degree of relationship between items and factors. Pearson correlation coefficients were employed for this purpose. Fourth, the relationships between the observed factors and latent variables were assessed. The factor structure in each group was examined. By employing a test of first-order CFA, the observed indicators (items) for each variable with its metric value were identified. Fifth, multigroup CFA was conducted to test the four levels of MI described above.

The difference indices used to determine model fit in Chapter Four were similarly used to evaluate the model goodness of fit of the MI investigation. Consequently, each measurement model's quality was assessed via the following well-recognized standards: $RMSEA \leq .08$, $SRMR$

$\leq .10$, and $CFI \geq .90$ for adequate model fit and values of $RMSEA \leq .05$, $SRMR \leq .08$, and $CFI \geq .95$ for excellent model fit (Browne & Cudeck, 1993; Collier, 2020).

In addition, a relative chi-square test (χ^2/df) < 3 is taken as an indicator of good model fit. The Akaike information criterion (AIC; Akaike, 1987) was used to compare the quality of competing baseline models; a smaller number indicates a more ideal model. As measures of invariance, the use of other alternative fit indices (e.g., $\Delta RMSEA$, $\Delta SRMR$: Meade et al., 2008; CFI: Cheung & Rensvold, 2002) was applied. According to these authors, a change in $RMSEA$ (i.e., $\Delta RMSEA$), with a change $\leq -.015$, indicates invariance between MI levels (Meade et al., 2008). Change in CFI (i.e., ΔCFI), where invariance is encountered on the basis of a change in $CFI \leq -.015$ (Cheung & Rensvold, 2002). That is, if there was no decrease in ΔCFI and $\Delta RMSEA$ between increasingly restrictive MI models of greater than .01 and .015, respectively, the assumption of MI was accepted at each level.

In the past, significant changes in the chi-square for two nested models were used as a criterion to assess MI (Byrne et al., 1989; Reise et al., 1993). According to Cheung and Rensvold (2002) and Meade et al. (2008), chi-square is excessively sensitive to small and nonsignificant deviations from a "precise" model, so researchers have shifted their emphasis from chi-square to alternative fit indices in the search for optimal model fit. This is why alternative fit indices were more frequently used in this study to determine model fit.

Consequently, the fit indices for testing the configural, metric, scalar, and residual invariance were found to be adequate to show invariance (see Chapter Four, Section 4.1.5). However, the partial invariance model fit the data better than the full residual model did. This partial invariance model is therefore used as a baseline model for the subsequent invariance tests.

The study showed that the assumptions for the MI of the Amharic and English language versions of the national identity measure were met. The presence of the two-factor model in both the Amharic and English versions (configural invariance), which is consistent with previous studies, showed that the instrument was conceptualized and understood by the two groups similarly, although it was presented in two different languages. The result that the factor loadings of the items were similar across the two groups (metric invariance) suggested that the predictive association may be meaningfully compared between groups because the measurement items can similarly be understood by the sample participants whether they are presented in Amharic or English.

Scalar invariance was attained in the current study, which means that the mean scores of the two groups could be eloquently compared and that the levels of the underlying items of the two versions were similar. The assumption that residual invariance was met in the study also means that group-to-group comparisons of raw observed scores can be meaningfully made without considering the uneven impact of measurement error. These results are consistent with those of previous studies that examined MI on the construct across groups with different adapted versions of languages (e.g., Fisher et al., 2020; Maehler et al., 2019; Mastrotheodoros et al., 2012).

5.2. The Levels of National Identity, Social Intelligence and Cultural Intelligence among Students in Ethiopian Public Universities

The study examined the students' levels of NI, SI, and CQ. As shown in the results section, computations of comparisons of the mean values based on the previous study results were performed to determine the levels of students on the constructs. The results revealed that the students presented remarkably high levels of NI and CQ. They were also found abstemiously at a significant level of the SI. Given the current state of ethnic salience in Ethiopia, students were

found to have strong NI. This could be a somewhat unforeseen result for those who say that Ethiopian national identity has become weak as of now. In the extant literature, there are no clear-cut study results regarding the convergence and divergence between ethnic and national identities. Some authors say that if ethnic attachment increases, national attachment should decrease (e.g., Robinson, 2009), although the two identities are not mutually exclusive. In multicultural states, the increased salience of national identity would produce a concurrent reduction in the relative salience of ethnic differences (e.g., Chandra, 2001; Laitin & Posner, 2001). They noted that decreasing ethnic salience may be one of the mechanisms of turning a citizenry into a nation. Consequently, correlates of ethnic salience should be negative predictors of national attachment.

Claiming that this notion of identity study is ideologically informed and politically embedded because it ignores the psycho-sociohistorical distinctiveness of national identity, social psychologists, on the other hand, argue that individuals can have multiple forms of identities, preferring the maintenance of an exclusive ethnic or national or both identities (Verkuyten & Martinovic, 2012). However, dual identity does not necessarily mean that national and ethnic identities are equally strong (Simon & Grabow, 2010; Simon & Ruhs, 2008). The degree of identification could lead to different degrees of loyalty to the group. Scholars have agreed upon views of identity as multiple, constantly renegotiated, and subjective relations with a national group (Brubaker & Cooper, 2000).

The students' SI was also found to be significantly moderate, but their CQ was high. Compared with other segments of the population, university students tend to have higher levels of SI (e.g., Alkhaldi & Alkhutaba, 2018; Bhat & Khandai, 2016; Omogbai & Jesuorobo, 2024; Uygun & Aribas, 2020) and CQ (e.g., Al-Jarrah, 2016; Senel, 2020; Sousa et al., 2023; Teneta-

Skwiercz, 2022). The reason may be that the university environment exposes students to different intercultural and social encounters by meeting students from different cultural backgrounds, which may help develop the capabilities of the two constructs. Ethiopian public university settings are diverse and include students from different ethnic and cultural groups across the country. This can be an opportunity and an asset for the development of the constructs.

In addition, the demanding and intensive nature of the academic environment for cognitive advancement and enlightenment would contribute to the development of the capabilities of social information processing, social skill, and social awareness, which are components of social intelligence (Silvera et al., 2001), and the cultural intelligence components of metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ (Earley & Ang, 2003). Considering the richness of culture and diversity of ethnic groups, the results of this study cannot be considered counterintuitive.

Social psychology researchers further argue that individuals' relationships in a group should not be considered an expression of identity; explaining group identification is sometimes different from explaining members' relationships (e.g., Huddy et al., 2021; Karasawa, 1991), as noted in the introduction section. They reported that national identity exists at two different poles: (a) it exists in the public sphere in the form of articulated and highly selective speech produced by several social agents and institutions (intellectual elites, media, state institutions, etc.), and (b) it is expressed through several socially shared lifestyles and feelings, which are sometimes not appropriately represented by public versions of identity (Wynter et al., 2001). Because national identity is not publicly spoken, it does not show its absence or weakness.

To the best of the present researcher's knowledge, studies on national identity from the social psychology perspective are rare in Ethiopia. A closer investigation to the present study is that of

Keller's and Omwami's (2007) investigation about the perceptions of national identity, citizenship, government service delivery, equity, and popular participation of Ethiopians in the regional states of Oromia, Southern Nations and Nationalities and People's (SNNP), Tigray, Amhara, Benishangul-Gumuz, and Addis Ababa. The results generally did not reveal contradictions between participants' ethnic identities and their Ethiopian national identities.

With respect to Ethiopian nationality and unity, the participants supported the idea that Ethiopian nationality and unity were more important than self-determination. The present study revealed that Ethiopian national identity among public university students was high. Given the complex nature of conflicts, the Ethiopian national identity was not found to be weak.

5.3. Relationships among National Identity, Social Intelligence and Cultural Intelligence among Ethiopian Public University Students

The study also assessed the relationships among NI, SI, and CQ. There was a significant positive correlation among students' NI, SI, and CQ. This means that students with stronger Ethiopian national identities had greater SI. Similarly, students with higher CQ had a more pronounced Ethiopian national identity. Students' SI was also highly positively correlated with their CQ, and hence, students who were more socially intelligent were also more culturally intelligent.

Studies examining the direct associations among NI, SI, and CQ are hardly existed in the literature. However, investigations conducted on various subtypes of social identities and SI have shown similar positive correlations between the constructs (Falahi et al., 2020; Haslam et al., 2022). This can be attributed to the fact that people with greater SI can better understand others' perspectives and can synchronize with their own feelings, beliefs, and attitudes. This can foster a more inclusive, cohesive, tolerant, and accepting national identity, as the members involved can

relate to and appreciate the ideas, practices, and experiences of diverse members of that nation. This, correspondingly, has empirical support, as strong national identity was found to facilitate people's adaptation to their environment because it meets a series of motives or identity functions (Simon, 2004; Vignoles et al., 2006).

Students with the capacity to understand others and behave (or act) accordingly can have healthy relationships with their fellow citizens, which contributes to having a strong national identity. They will be adept at forming new relationships, expanding their networks, maintaining existing ones, and effectively resolving interpersonal conflicts. These abilities significantly influence their exploration of shared values and the commonalities that emerge. These capabilities considerably positively influence the national identity level of individuals, contributing to exploring and determining the values embedded and the commonalities that surfaced and maintaining collective identities in a diversified nation such as Ethiopia.

Self-definition within a specific social group is explored through social identity theory, which establishes a link between an individual's cognitive and perceptual processes and the behaviors of social groups. Motivational and emotional factors are significant contributors to this dynamic (Tajfel & Turner, 1979). The affective and cognitive processes individuals engage in regarding their social environment are crucial in shaping and sustaining the identities of social groups.

Similarly, the triarchic theory of intelligence seeks to elucidate the concept of intelligence in relation to an individual's internal and external worlds (Sternberg, 1988). This theory comprises three subtheories, each relating to a specific facet of intelligence. The componential subtheory corresponds to analytical intelligence, which encompasses the ability to solve problems; the contextual subtheory pertains to practical intelligence, referring to the capacity to effectively

navigate one's environment; and the experiential subtheory relates to creative intelligence, or the ability to address novel situations and challenges (Sternberg, 1985, 1988). According to Sternberg, intelligent thought is not arbitrary or random; rather, it is purposefully directed toward behavioral goals that are significant to the individual's life, including adaptation to the environment and the selection and shaping of that environment (Gross, 1996).

The strong positive relationship between NI and CQ revealed in the present study also has theoretical, conceptual, and empirical support. For example, social identity theory indicates that an attempt to share others' values and thoughts gives rise to "we-ness" on the basis of "the shared attributes around which group members coalesce" (Cerulo, 1997, p. 386). Cultural intelligence assumes these important elements for strong identification, as discussed before. Developing the three facets of intelligence enhances an individual's ability to engage effectively in group interactions and to sustain group identity.

Studies conducted on heterogeneous and culturally diverse nations have also shown that culturally diverse states and nations have higher levels of nationalism than more homogeneous states do (Robinson, 2009). This seems counterintuitive to the general belief regarding national identity, as the more homogeneous a population is, the easier it is to build a stronger nation. The tentative justification for higher levels of nationalism in heterogeneous nations could be attributed to a significant number of members having higher CQ so that there would be a greater degree of cohesiveness and identification. As there is a positive correlation between CQ and cross-cultural adjustments (Subramaniam et al., 2011), people in multicultural states can have higher CQ, which is vital to building identity with a nation.

The strong correlation between social intelligence (SI) and cultural intelligence (CQ) can be attributed to their intrinsic relationship as interconnected constructs of intelligence. Numerous

studies have illuminated this significant link, such as the research conducted by SuB and Beauducel (2005) and Crowne (2009), which underscore the common underlying elements that enable individuals to effectively comprehend and navigate various social contexts. These studies reveal how both forms of intelligence contribute to our ability to interact harmoniously within diverse environments. However, it is crucial to acknowledge that, despite their interrelationship, SI and CQ are distinct constructs that offer unique insights into human behavior and social dynamics (e.g., Crowne, 2009). Afterwards, Kutner et al. (2005) noted “The fact that some or all predictor variables are correlated among themselves does not, in general, inhibit our ability to obtain a good fit nor does it tend to affect inferences about mean responses or predictions of new observations” (p. 289).

5.4. Contributions of Social and Cultural Intelligence in Predicting National Identity

This study examined the predictive power and contributions of social intelligence (SI) and cultural intelligence (CQ) to Ethiopian national identity (NI) among university students. The findings revealed that both SI and CQ are statistically significant predictors of NI. Specifically, students who demonstrated higher levels of social and cultural intelligence were more likely to express a stronger sense of identification with the Ethiopian national identity. These results are consistent with previous studies in related domains, particularly those exploring social identity and self-efficacy in culturally diverse contexts, which have shown similar linear relationships among such variables. For instance, Espinosa et al. (2013, as cited in Espinosa et al., 2016) found that greater national identification is associated with increased acceptance of others, stronger interpersonal confidence, and a heightened sense of contribution to society.

Social identity, as a construct, fosters psychological connectedness among members of the same group. Therefore, individuals' ability to navigate social relationships effectively (SI) and

adapt successfully across different cultural environments (CQ) can serve as strong indicators of their national identity development. Haslam et al. (2022) note that social identity provides a shared sense of meaning, belonging, efficacy, and emotional support. In this context, both social intelligence and cultural intelligence help cultivate and reinforce these attributes. They can effectively harness these qualities. A deeper understanding of both one's own culture and the diverse cultures present within a nation contributes to the development of a coherent and inclusive sense of national identity.

Furthermore, a student's curiosity and intrinsic motivation to engage with and learn about other cultures in a pluralistic society like Ethiopia can enhance inclusive national identification. Such attitudes promote appreciation, mutual respect, and recognition among members of different cultural groups. These experiences help reinforce a collective national identity that honors diversity while emphasizing shared values and goals. As such, students with high social intelligence and cultural intelligence are better positioned to discover common ground across different cultural backgrounds, respect existing differences, and actively contribute to the cohesion of a diverse national community.

Although demographic variables, when examined independently, did not significantly predict national identity, the overall model—including the key independent variables—was found to be a significant predictor of national identity. A closer look at the individual contributions of each variable revealed that cultural intelligence (CQ) made the strongest unique contribution to the model, followed by social intelligence (SI). Age also emerged as a statistically significant, albeit smaller, predictor. These results suggest that variability in age is associated with differing degrees of national identification. Supporting this finding, Windari (2021) reported that age contributes meaningfully to an individual's attachment to their national identity.

Additionally, the study tested whether the predictive strength of SI and CQ remained consistent after controlling for demographic variables. The results confirmed that both SI and CQ continued to significantly predict national identity even after accounting for demographic influences. To the best of the researcher's knowledge, few—if any—studies have investigated this specific relationship within the Ethiopian context. However, Keller and Omwami (2007) conducted a relevant investigation and found no overall contradiction between participants' demographic characteristics and their Ethiopian national identity. Nonetheless, they reported differences in magnitude based on certain demographic indicators. In particular, region of residence was identified as a critical factor influencing national identity variability. For example, when regional residence was included in the regression model, only participants from Amhara showed a statistically significant increase in national pride compared to the reference group from Tigray.

CHAPTER SIX

Summary, Conclusion, and Recommendations

In this chapter, summaries of the main results of the study, conclusions, recommendations for future researchers, and recommendations for relevant stakeholders are provided. The summaries, conclusions, and recommendations presented here are based on the results and overall findings from the two phases of the study.

6.1. Summary

The general objective of this study was to examine social intelligence (SI) and cultural intelligence (CQ) as predictors of national identity (NI) among public university students of Ethiopia, particularly senior undergraduate students. The students' levels of NI, SI, and CQ, the relationships among them, and the abilities of the SI and CQ constructs to predict NI were assessed.

Before the variables were examined, a better language version of the English and Amharic instruments was chosen in terms of measuring the constructs in the target population. Specifically, the NI measure (i.e., the dependent variable) was subjected to a test of MI. Hence, an examination of the MI (configural, metric, scalar & residual) of the English and Amharic language versions of the MEIM was conducted. After establishing a baseline model of the scale via CFA, the four levels of MI were assessed, applying more stringent and increasingly restrictive multigroup confirmatory factor analyses. Chi-square differences and alternative fit indices were used to determine model fit.

In the configural invariance testing of arrangement across groups, the parameters were freely estimated in each group, resulting in a good general model ($CFI = .965$, $RMSEA = .041$ & $SRMR = .047$). For the metric invariance test, ΔCFI , $\Delta RMSEA$, and $\Delta SRMR$ were found to be

.001, -.002, and .006, respectively. The values indicated that the improvement in model fit was not significant with the imposition of the equality constraints. For the scalar test, the values of ΔCFI , ΔCFI , $\Delta RMSEA$, and $\Delta SRMR$ were found to be -.002, -.001, and -.007, indicating scalar invariance. The partial invariance model, where the residual variance for 'Exploration items 1 & 4' were freely estimated across the groups, yielded $\Delta CFI = .003$, $\Delta RMSEA = -.002$, and $\Delta SRMR = 0$.

Although invariance between the two language versions was found, the Amharic version was found to be a more robust measure. For example, the variance explained by the observed variables (R^2) for the Amharic version ranged from .415 (exploration item 13) to .766 (exploration item 1). This means that the explained variance ranged from 41.5% to 76.6%. For the English version, the variance ranged from .362 (exploration item 9) to .571 (commitment 11). Comparatively, the Amharic version of the items explained more of the variance than did the English version.

Concerning model fit indices values, the model for both language versions yielded values of good model fit indices (Amharic: $\chi^2 = 140.250$; $p < .05$, CFI = .966; IFI = .966; TLI = .956; RMSEA = .062; and .048) and (English: $\chi^2 = 140.942$; $p < .05$, CFI = .945; IFI = .945; TLI = .933; RMSEA = .055; and .051). The Amharic language version yielded better model fit indices.

The study also examined the factor structure, model fit, reliability, and validity of the NI, SI and CQ measures. The results of the EFA revealed that the NI has a two-factor structure: commitment and exploration. The SI reveals that the measure has a three-factor structure: SIP, SSs, and SA. CQ has a four-factor structure: metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ. The rotated solution showed that all the items substantially loaded on their respective factors. There were no poor-loading items. There were no cross-loadings either.

The results of the CFA revealed that all the observed variables were significantly represented by their latent variables and that good model fit was attained. Excellent internal consistency reliability was also observed, for example, for commitment ($\alpha = .933$) and exploration ($\alpha = .931$). The AVEs were also .64 and .70, indicating convergent validity. The square roots of the AVE were .80 and .83, confirming the discriminant validity of the measurement model. Similar results were found for the remaining constructs (i.e., $\geq .90$).

The study examined the levels of NI, SI, and CQ in the students. On the basis of the mean values of the previous studies on the constructs, comparisons of the mean values were performed to determine the levels. Students exhibited a strong level of NI and a remarkably high level of CQ and were moderately socially intelligent. It was also revealed that there is a significant positive correlation among students' NI, SI, and CQ. Students' SI was positively correlated with their national identity ($r = .49, p < .01$) and with CQ ($r = .72, p < .01$). Similarly, students' CQ was positively correlated with their national identity ($r = .58, p < .01$).

Moreover, the study examined the predictive ability of the SI and CQ constructs for the NI. The results show that SI and CQ contribute to the prediction of NI ($R^2 = .340, F = 113.045, p < .001$), explaining 34% of the variance. Both independent variables were found to be significant predictors of the outcome variable, resulting in social intelligence ($\beta = .154, t = 2.763, p < .01$) and cultural intelligence ($\beta = .462, t = 8.278, p < .001$). Compared with SI (15.4%), CQ (46.2%) had a stronger effect on the prediction of NI.

6.2. Conclusion

The results of this study provide important insights into the relationships among NI, SI, and CQ among public students in Ethiopia. On the basis of the results in general and the summaries presented above in particular, the following conclusions are drawn.

The study provides a reliable and valid measure of the constructs by revealing that those imported tools undergo rigorous adaptation, translation, and validation processes. To identify the more robust measure from the two language versions and subsequently choose the better one for the study purposes, a test of measurement invariance or equivalence was conducted on the NI measure during the piloting. The measurement of the NI was chosen for this particular test because it was the dependent variable in the study, along with other qualitative factors.

The assumptions for the MI of the English and Amharic language versions of the MEIM were met. The presence of the two-factor model in both the English and the Amharic versions (configural invariance), which is consistent with previous studies, showed that the instrument was conceptualized and understood by the two groups similarly, although it was presented in two different languages. The result that the factor loadings of the items were similar across the two groups (metric invariance) suggested that the predictive association may be meaningfully compared between groups because the MEIM items can similarly be understood by the sample participants whether they are presented in English or Amharic.

Scalar invariance was attained in the current study, which means that the mean scores of the two groups could be eloquently compared and that the levels of the underlying items of the two versions were similar. The assumption that residual invariance was met in the study also means that group-to-group comparisons of raw observed scores can be meaningfully made without considering the uneven impact of measurement error.

These results of the current study are consistent with those of previous studies that examined MI on the construct across groups with different adapted versions of languages. The results showed that the NI measure in the English and Amharic language versions was measurement invariant. However, exceeding values of indices and regression weights revealed that the

Amharic language version is a more rigorous measure than English is. The researcher believes that a similar result would be obtained if the same test of MI could be performed for the SI and CQ constructs because of the language barrier, as mentioned in the results section (see Chapter Four, Section 4.2 for more detail).

As part of the validation task, the study assessed the factor structure, model fitness, reliability, and validity of the measures before the key objectives were examined. The EFA results revealed the presence of two factors of the NI construct, three factors of SI, and four factors of CQ. Two poorly functioning items in each of the NI and SI measures were excluded from the respective measures.

These two items in the NI measure read as "I participate in organizations or social groups that include most members of my Ethiopian fellows without considering their specific ethnicity, religion, gender, etc." and "I think a lot about how my life will be affected by my Ethiopian national group membership." In the SI measure, the two items were "I often feel uncertain if what I am doing is right around new people" and "Other people become angry with me without explaining to me why." This means that these items were not found to fit the context of Ethiopia, particularly for public university students.

Therefore, valid and reliable measures of the NI, SI, and CQ constructs in the Amharic language version for undergraduate students at Ethiopian public universities have been obtained.

The study measured the students' levels of NI, SI, and CQ. The students presented remarkably high levels of NI and CQ. However, they were found at significantly abstemious levels in the SI construct. The high level of NI found by the study indicated that the students had a strong sense of identification with and connection to their Ethiopian national identity. They

were also found to have high levels of CQ, indicating that students could adapt and effectively function in culturally diverse environments or settings.

These samples presented a significantly moderate SI. This means that they possess more than adequate social information processing, social skills, and social awareness that help them navigate their environment and successfully interact with others. The study also revealed a significant positive correlation between NI, SI, and CQ. These findings indicate that these constructs are closely related and therefore reinforce each other.

Moreover, SI was found to be positively correlated with NI, indicating that students with higher SI also had a stronger Ethiopian national identity. Similarly, CQ was positively correlated with NI, indicating that students with higher CQ had a more pronounced Ethiopian national identity. Furthermore, SI was highly positively correlated with CQ, meaning that more socially intelligent students were also more culturally intelligent.

The results indicate that students with high levels of SI and CQ are more likely to identify with an Ethiopian national identity. From the study's general results, it is possible to conclude that, by helping students develop SI and CQ, it is possible to enhance students' national identity. This study highlights the importance of SI and CQ as key factors that help strengthen national identity. However, CQ emerged as a stronger predictor than SI in influencing NI. This highlights that students' ability to adapt and thrive in culturally diverse settings is a noticeable factor in developing a strong national identity.

To this end, this study introduces a new contextualized and tailored framework specifically for students in Ethiopian public university settings. The study demonstrated how NI can be affected by SI and CQ among students in a specified context. It is assumed that the framework can be used by future researchers as bedrock for further investigations. This study provides vital

insights into the multifaceted constructs of NI, SI, and CQ. This research will encourage researchers to further investigate this topic, aiming at upholding togetherness and peaceful coexistence in general and fostering a favorable learning environment for students' effectiveness in particular.

6.3. Recommendations

Ethiopia is a country with a diverse population in terms of ethnicity, culture, and religion. The interplay of human-to-human interactions is considered essential for the existence of a larger community. University students' societal and cultural values, in this regard, cannot be seen as different from those of the general society. The plan to conduct this study on public university students, who were from different backgrounds, would be, in general, important bedrock for the investigation of the construct and its relationship with other variables in the future. Consequently, the following practical recommendations for the key stakeholders that are assumed relevant and research recommendations for future researchers are given:

6.3.1. Practical Recommendations

Interventions in the Curriculum.

This study reveals the importance of SI and CQ for NI. Hence, the incorporation of the elemental aspects of the constructs in the curriculum of higher education for a targeted behavioral outcome appears to be important. This could involve developing and implementing courses that address these issues, conducting regular workshops, and putting in place strict extracurricular activities that would center on helping students develop social skills, social awareness, intercultural understanding, communication, and adaptability. The Ministry of

Education of Ethiopia and public universities are responsible entities for implementing this recommendation.

Interregional Placement and Intercultural Exchange Opportunities

The well-known contact hypothesis suggests that direct contact and interaction between members of different social and cultural groups lead to better intergroup relationships, minimizing prejudice, stereotypes, hatred, and other perceived negative attitudes. Therefore, the placement of students at universities outside of their localities or regions gives them exposure to intercultural experiences and the opportunity to learn about others. Social and cultural encounters can help them develop the ability to appreciate diversity, which in turn can help strengthen their sense of national identity. In addition, it is important to create experience-sharing and intercultural exchange opportunities for students at universities. In addition to the Ministry of Education of Ethiopia and public universities, other concerned ministerial offices such as Culture and Sport, Youth and Social Affairs, and nongovernmental organizations that work with youth development can be responsible entities for the implementation of this recommendation.

Faculty Development Centers and Programs.

Setting up social and cultural centers and implementing faculty programs to help develop SI and CQ by universities is recommended as an important task that needs to be practiced. This can be taken as an auxiliary to the curriculum intervention. Unlike conventional cultural centers that are filled with cultural physical materials, this particular center needs to be equipped with educators and program experts with knowledge of pedagogical strategies to effectively plan and implement SI and CQ development programs. The Ministry of Education of Ethiopia stated that higher education institutions continue to be the center of diversity in terms of students' religion, language, and ethnicity (MoE, 2011). Hence, public universities, mainly the Ministry of

Education, and nongovernmental organizations can be key actors in accomplishing this recommendation.

Positive Youth Development Policy.

This study could be used as a reference for policymakers and for those entities who work in positive youth development programs. The study, for example, presents insights into young students' levels of SI, CQ, and NI. This will provide a basic understanding of these entities and other key stakeholders about youth students' ability to get along with others and their ability to understand complex social relationships so that they can design strategies and/or approaches for the betterment of their future when they join the workforce.

Overall, the findings of the present study provide insights into the importance of SI and CQ as factors that contribute to the strengthening of NI among public university students in Ethiopia. The findings can inform relevant stakeholders aforementioned for interventions aimed at developing SI and CQ to foster a strong national identity among the student population.

6.3.2. Research Recommendations

Most recent works in Ethiopia have focused on the microlevel of ethnic identity. Such studies are useful for understanding social identities but cannot be taken as trouble-free when connected to national identity investigations. Therefore, considering the current state of ethnic salience in Ethiopia, other researchers should investigate the two identity constructs comparatively or by examining their consequences with other outcome variables. They could also examine how these constructs (SI, CQ & NI) may differ across various demographic variables and students' academic backgrounds or potential mediating factors that may shape these relationships. Furthermore, future researchers are encouraged to explore the attributes identified in the present study and the unique characteristics of Ethiopian culture through qualitative research.

In addition, comparative studies with other cultural contexts and longitudinal studies can be conducted on the problem. Cross-cultural comparative studies can reveal universal and context-specific factors influencing national identity formation. Longitudinal research is recommended because it enables to observe how social and cultural intelligence and national identity evolve over time, particularly in diverse settings.

6.3.3. Theoretical Recommendations

The study highlights how social and cultural intelligence contribute to Ethiopian national identity among public university students. Incorporating important theories, the following theoretical recommendations are put forth:

Integration with Social Identity Theory.

Social identity theory suggests that individuals derive and/or form part of their identity from the groups they are members of. Consequently, future studies ought to examine the ways in which how social and cultural intelligence strengthen the sense of belonging to a group. By examining and understanding how individuals navigate their social identity within a diversified environment, researchers can further assess the connection between individual intelligence and collective identity— particularly national identity.

Application of the Triarchic Theory of Intelligence.

A more refined understanding of how various forms of intelligence contribute to group identity can be gained by applying the Triarchic Theory of Intelligence, which encompasses analytical, creative, and practical facets of intelligence. Future research should look into how individuals' concepts of social identity— particularly national identity— are impacted by various types of intelligence, especially in complex and diversified sociocultural contexts. This approach

might show how the practical facet of intelligence, for example, helps navigate and understand social and cultural contexts and foster a cohesive national identity.

Integration of Social Cognitive Theory.

Understanding how social and cultural intelligence are built through interaction with peers and community members can be enhanced by utilizing the Social Cognitive Theory, which highlights the role of modeling, imitation, and observational learning in behavior and identity construction. Future studies should ponder how role models within educational settings influence students' social and cultural intelligence, and in turn, their national identity. Examining the impacts of different extracurricular activities that encourage social interaction and cultural knowledge, for example, maybe one way to do this.

Development of a Multidimensional Model.

The Triarchic Theory of Intelligence, Social Identity Theory, and Social Cognitive Theory can all be incorporated and developed into a multifaceted paradigm. This model can offer a comprehensive and exhaustive framework for comprehending the relationship between social and cultural intelligence and national identity across a range of demographic groups, considering both individual cognitive processes and collective social influences.

In conclusion, the aforementioned recommendations aim to provide a richer theoretical framework for examining and understanding the interplay between social and cultural intelligence and national identity, guided by the established theories in psychology. This study's results, in general, can be taken as an integral part of the knowledge domain of social identity, adding a body of literature to the field.

REFERENCES

- Abrams, D., & Hogg, A. (1990). An introduction to the social identity approach. In D. Abrams & M.A. Hogg (Eds.), *Social Identity Theory: Constructive and Critical Advances* (pp. 1-9). Harvester Wheatsheaf.
- Ackerman, P. L. (1987). Individual differences in skill learning: An integration of psychometric and information processing perspectives. *Psychological Bulletin*, 102(1), 3–27.
<https://doi.org/10.1037/0033-2909.102.1.3>
- Ackerman, P. L. (1996). A theory of adult intellectual development: Process, personality, interests, and knowledge. *Intelligence*, 22(2), 227–257. [https://doi.org/10.1016/S0160-2896\(96\)90016-1](https://doi.org/10.1016/S0160-2896(96)90016-1)
- Ackerman, P. L., & Humphreys, L. G. (1990). Individual differences theory in industrial and organizational psychology. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (Vol. 1, pp. 223–282). Consulting Psychologists Press.
- Adamu, A. Y. (2014). *Ethnic and religious diversity in higher education in Ethiopia: The case of Bahir Dar University*. Tampere University Press.
- Adamu, A. Y. (2023). Student ethnic diversity management in Ethiopian universities: practices, challenges, and way forward. *Higher Education*, 86(6), 1325-1340.
<https://doi.org/10.1007/s10734-022-00974-x>
- Akaike, H. (1987). *Factor analysis and AIC*. *Psychometrika*, 52(3), 317–332.
<https://doi.org/10.1007/BF02294359>
- Al-Dossary, S. A. (2016). Psychometric properties of the cultural intelligence scale in a Saudi Arabian context. *International Journal of Selection and Assessment*, 24(4), 305–311.

- Alkhaldi, H. S., & Alkhutaba, M. Y. (2018). Spiritual and Social Intelligence among University Students in the Light of Variables: A Comparative Study. *International Journal of Psychology and Behavioral Sciences*, 8(5), 81–95.
<https://doi.org/10.5923/j.ijpbs.20180805.02>
- Anderson, B. (2020). Imagined communities: Reflections on the origin and spread of nationalism. In *The new social theory reader* (pp. 282-288). Routledge.
- Ang, S., et al. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation and task performance. *Management and Organization Review*, 3(3), 335–371. <https://doi.org/10.1111/j.1740-8784.2007.00082.x>
- Ang, S., Van Dyne, L., Koh, C., & Ng, K. Y. (2004, August). The measurement of cultural intelligence. Paper presented at the *Academy of Management Meetings Symposium on Cultural Intelligence in the 21st century*, New Orleans, LA.
- Ashdown, B.A., Homa, N., & Brown, C.M. (2014). Measuring gender identity and religious identity with adapted versions of the Multigroup Ethnic Identity Measure– Revised. *Journal of Educational and Developmental Psychology*, 4(1), 226–241.
<https://doi.org/10.5539/JEDP.V4N1P226>
- Ashmore, R. D., Deaux, K., & McLaughlin-Volpe, T. (2004). An organizing framework for collective identity: articulation and significance of multidimensionality. *Psychological Bulletin*, 130(1), 80–114. <https://doi.org/10.1037/0033-2909.130.1.80>
- Assefa, H., Rupesinghe, K., & Tishkov, V. A. (1996). *Ethnicity and Power in the Contemporary World*. United Nations University Press.
- Bandura, A. (2002). Social cognitive theory in cultural context. *Applied Psychology: An International Review*, 51(2), 269–290. <https://doi.org/10.1111/1464-0597.00092>

- Barger, S. (2002). The Marlowe-Crowne affair: short forms, psychometric structure, and social desirability. *Journal of Personality Assessment*, 79(2), 286–305. [https://doi: 10.1207/S15327752JPA7902_11](https://doi.org/10.1207/S15327752JPA7902_11)
- Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory. In R. Bar-On & J. D. A. Parker (Eds.), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace* (pp. 363–388). Jossey-Bass.
- Bateman, T. S., Griffin, R. W., & Rubinstein, D. (1987). Social information processing and group-induced shifts in responses to task design. *Group & Organization Studies*, 12(1), 88–108. <https://doi.org/10.1177/105960118701200107>
- Beamish, W., & Bryer, F. (2015) Social and emotional learning. In S, Garvis & D, Pendergast (Eds.), *Health and wellbeing in childhood*. Cambridge University Press.
- Bechhofer, F., & McCrone, D. (2009b). *National Identity, nationalism and constitutional change*. London: Palgrave Macmillan.
- Beshah, Z. (2020). *Ethnic-Based Conflicts in Ethiopia's Higher Education: The Case of Debre Berhan University* (Unpublished paper).
- Bellamy, R. (2008). *Citizenship: A very short introduction*. Oxford University Press.
- Bhat, Y. I., & Khandai, H. (2016). Social intelligence, study habits and academic achievements of college students of district Pulwama. *Research on Humanities and Social Sciences*, 6(7), 35–41. <https://doi.org/10.61778/ijmrast.v2i3.43>
- Billig, M. (1995). *Banal Nationalism*. Sage Publications.

- Boyatzis, R. E. (2009). Competencies as a behavioral approach to emotional intelligence. *Journal of Management Development*, 28(9), 749-770.
<https://doi.org/10.1108/02621710910987647>
- Boyatzis, R. E., Rochford, K., & Jack, A. I. (2014). Antagonistic neural networks underlying differentiated leadership roles. *Frontiers in Human Neuroscience*, 8(114), 1–15.
<https://doi.org/10.3389/fnhum.2014.00114>
- Boyle, G. J., & Saklofske, D. H. (2004). Editors' introduction: Contemporary perspectives on the psychology of individual differences. *The psychology of individual differences*, 1.
- Brewer, M. B. (2001). The Many Faces of Social Identity: Implications for Political Psychology. *International Society of Political Psychology*, 22(1), 115-125.
- Brief, A., & Weiss, M. (2002). Organizational behavior: Affect in the workplace. *Annual Review of Psychology*, 53(1), 279–307. <https://doi.org/10.1146/annurev.psych.53.100901.135156>
- Brislin, R., Worthlry, R., & Macnab, B. (2006). Cultural intelligence: Understanding behaviors that serve people's goals. *Group and Organizational Management*, 31(1), 40-55.
<https://doi.org/10.1177/1059601105275262>
- Brown, L. T., & Anthony, R. G. (1990). Continuing the search for social intelligence. *Personality and Individual Differences*, 11(5), 463–470.
[https://doi.org/10.1016/0191-8869\(90\)90059-Z](https://doi.org/10.1016/0191-8869(90)90059-Z)
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.). *Testing structural equation models* (pp. 136-162). Sage.
- Brubaker, R., & Cooper, F. (2000). Beyond “identity”. *Theory and Society*, 29(1), 1–47.
<https://doi.org/10.1023/A:1007068714468>
- Bryman, A., & Bell, E. (2003). *Business Research Methods*. Oxford University Press.

- Byrne, B. M., Shavelson, R. J., & Muthén, B. (1989). Testing for the equivalence of factor covariance and mean structures: the issue of partial measurement invariance. *Psychological Bulletin*, 105(3), 456–466. <https://doi.org/10.1037/0033-2909.105.3.456>
- Caligiuri, P. M. (2000). The Big Five Personality Characteristics as Predictors of Expatriates: Desire to terminate the assignment and supervisor-rated performance. *Personnel Psychology*, 53(1), 67–88. <https://doi.org/10.1111/j.1744-6570.2000.tb00194.x>
- Cameron, J. (2004). A three-factor model of social identity. *Self & Identity*, 3(3), 239–262. <https://doi.org/10.1080/13576500444000047>
- Caligiuri, P. M., Hyland, M. A., Joshi, A., & Bross, A. S. (1998). Testing a theoretical model for examining the relationship of family adjustment and expatriates' work adjustment. *Journal of Applied Psychology*, 83(4), 598–614. <https://doi.org/10.1037/0021-9010.83.4.598>
- Canney, C., & Byrne, A. (2006). Evaluating circle time as a support to social skills development: Reflections on a journey in school based-research. *British Journal of Special Education*, 33(1), 19–24. <https://doi.org/10.1111/j.1467-8578.2006.00407.x>
- Cannon, A., & Salas, E. (2001). Reflections on shared cognition. *Journal of Organizational Behavior*, 22(2), 195–202. <https://doi.org/10.1002/job.82>
- Carroll, J. B. (1993). *Human cognitive abilities: A survey of factor analytic studies*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511571312>
- Cattell, R. B. (1961). Theory of situational, instrument, second order, and refraction factors in personality structure research. *Psychological Bulletin*, 58(2), 160. <http://dx.doi.org/10.1037/h0045221>
- Cattell, R. B. (1987). *Intelligence: Its Structure growth and action*. North Holland.

- Ceci, S. J. (1996). *On intelligence: A bioecological treatise on intellectual development*. Harvard University Press.
- Cerulo, K. A. (1997). Identity construction: new issues, new directions. *Annual Review of Sociology*, 23(1), 385–409. <https://doi.org/10.1146/annurev.soc.23.1.385>
- Chandra, K. (2001). Cumulative Findings in the Study of Ethnic Politics. *APSA-CP*, 12(1), 7-11.
- Charles, H., & Trompenaars, F. (2006). Cultural intelligence: Is such a capacity credible? *Group and Organization Management*, 31(1), 56-63. <https://doi.org/10.1177/1059601105276942>
- Chater, W., Rebhi, M., Saidane, M., Guelmami, N., & Bouassida, A. (2023). Reliability and Validity of the Tromso Social Intelligence Scale (TSIS). *Advances in Physical Education*, 13(01), 53-65. <https://doi.org/10.4236/ape.2023.131006>
- Chen, F. F. (2008). What happens if we compare chopsticks with forks? The impact of making inappropriate comparisons in cross-cultural research. *Journal of Personality and Social Psychology*, 95(5), 1005–1018. <https://doi.org/10.1037/a0013193>
- Chen, G., Gully, S., Whiteman, J., & Kilcullen, B. (2000). Examination of relationships among trait-like individual differences, state-like individual differences, and learning performance. *Journal of Applied Psychology*, 85(6), 835–847. <https://doi.org/10.1037/0021-9010.85.6.835>.
- Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-to-fit indices for testing measurement invariance. *Structural Equation Modeling: A multidisciplinary Journal*, 9(2), 233–255. https://doi.org/10.1207/S15328007SEM0902_5
- Church, A. T. (1982) Sojourner Adjustment. *Psychological Bulletin*, 91(3), 540–572. <https://doi.org/10.1037/0033-2909.91.3.540>
- Citrin, J., & David, O. (2009). *Balancing national and ethnic identities: A guide for social scientists* (pp. 145–175). Cambridge University Press.

- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Cohen, L, Manio, L., & Morriso, K. (2005). *Research methods in education* (5th ed.). Taylor & Francis. <https://doi.org/10.4324/9780203224342>
- Cokley, K. (2007). Critical issues in the measurement of ethnic and racial identity: a referendum on the state of the field. *Journal of Counseling Psychology*, 54(3), 224-234.
<https://doi.org/10.1037/0022-0167.54.3.224>
- Collier, J. E. (2020). *Applied structural equation modeling using AMOS: Basic to advanced techniques*. Routledge.
- Costa, Jr., & McCrae, R. R. (2008). The revised NEO personality inventory (NEO-PI-R). In G. J. Boyle, G. Matthews & D. H. Saklofske (Eds.), *The SAGE handbook of personality theory and assessment, Vol. 2. Personality measurement and testing* (pp. 179–198). Sage Publications, Inc. <https://doi.org/10.4135/9781849200479.n9>
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Sage Publications.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Cristina, R., Juan, P., & Sara, A. (2016). Education-related factors in cultural intelligence development: A Colombian study. *Journal of Teaching in International Business*, 27(1), 41–58. <https://doi.org/10.1080/08975930.2016.1172541>
- Crowne, K. A. (2008). What leads to cultural intelligence? *Business Horizons*, 51(5), 391-399.
<https://doi.org/10.1016/j.bushor.2008.03.010>

- Crowne, K. A. (2009). The relationships among social intelligence, emotional intelligence and cultural intelligence. *Organization Management Journal*, 6(3), 148-163.
<https://doi.org/10.1057/omj.2009.20>
- CSA. (2008). Summary and statistical report of the 2007 population and housing census. *Addis Ababa, Ethiopia: Federal democratic republic of Ethiopia population census commission*, 1.
- Curran, P. J., West, S. G., & Finch, J. F. (1996). The robustness of test statistics to non-normality and specification error in confirmatory factor analysis. *Psychological Methods*, 1(1), 16-29.
- Cushner, K., & Brislin, R. W. (1996). *Intercultural Interactions: A Practical Guide*. Thousand.
- David, O., & Bar-Tal, D. (2009). A sociopsychological conception of collective identity: The case of national identity as an example. *Personality and Social Psychology Review*, 13(4), 354–379. <https://doi.org/10.1177/1088868309344412>
- Dessalegn, R., & Meheret, A. (2004). *Democratic assistance to postconflict Ethiopia: Impact and limitations* (FSS Monograph Series, No. 3). Forum for Social Studies.
- DeVellis, R. F. (2003). *Scale development: Theory and applications* (2nd ed.). Sage.
- Diane, L., & Putnick, M. (2016). Measurement invariance conventions and reporting: The state of the art and future directions for psychological research. *Developmental Review*, 41, 71–90.
<https://doi.org/10.1016/j.dr.2016.06.004>
- Dodge, K. A., & Pettit, G. S. (2003). A bio-psychosocial model of the development of chronic conduct problems in adolescence. *Developmental Psychology*, 39(2), 349-371.
<https://doi.org/10.1037/0012-1649.39.2.349>
- Dorgan, T., & Cetin, B. (2009). The Validity, Reliability and Factorial Structure of the Turkish Version of the Tromso Social Intelligence Scale. *Educational Sciences: Theory and Practice*, 9(2), 709–720.

- Durlak, J.A., Weissberg, R.P., Dymnicki, A.B., Taylor, R.D., & Schellinger, K.B. (2011). The Impact of Enhancing Students' Social and Emotional Learning: A Meta-Analysis of School-Based Universal Interventions. *Child Development*, 82(1), 405–432.
- Earley, P. C. (2002). Redefining interactions across cultures and organizations: Moving forward with cultural intelligence. *Research in Organizational Behavior*, 24, 271–299.
[https://doi.org/10.1016/S0191-3085\(02\)24008-3](https://doi.org/10.1016/S0191-3085(02)24008-3)
- Earley, P. C., & Ang, S. (2003). *Cultural intelligence: Individual interactions across cultures*. Stanford University Press.
- Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. In S. T. Fiske, D. L. Schacter & C. Zahn-Waxer (Eds.), *Annual Review of Psychology*, 53 (pp. 109–132). CA.
<https://doi.org/10.1146/annurev.psych.53.100901.135153>
- Eid, M., & Diener, E. (2001). Norms for experiencing emotions in different cultures: Inter- and intranational differences. *Journal of Personality and Social Psychology*, 81(5), 869–885. <https://doi.org/10.1037/0022-3514.81.5.869>
- Ekman, P. W. (1982). *Emotion in the Human Face* (2nd ed.). Cambridge University.
- Ellemers, N., Kortekaas, P., & Ouwerkerk, J. W. (1999). Self-categorization, commitment to the group and group self-esteem as related but distinct aspects of social identity. *European Journal of Social Psychology*, 29(2-3), 371–389. [https://doi.org/10.1002/\(SICI\)1099-0992\(199903/05\)29:2/3<371::AID-EJSP932>3.0.CO;2-U](https://doi.org/10.1002/(SICI)1099-0992(199903/05)29:2/3<371::AID-EJSP932>3.0.CO;2-U)
- Erikson, E. H. (1994). *Identity and the life cycle*. Norton & Company.
- Eshghi, P., Arofzad, S., & Hosaini, A. (2013). Relationship between social intelligence with effective influence among physical education expertise in Isfahan education organizations.

World Applied Sciences Journal, 28(12), 2177–2181.

<https://doi.org/10.5829/idosi.wasj.2013.28.12.734>

Espinosa, A., Schmitz, M., & Rottenbacher, J. (2016). Ideological bases of national identity and their influence on subjective, psychological and social well-being in Peru. *Network of Scientific Journals from Latin America, the Caribbean, Spain and Portugal*, 11(35), 18–32.

Falahi, Z., Sadeghi Afjeh, Z., & Kochak Entezar, R. (2020). The model of social trust based on social intelligence, social identity and social isolation based on the moderating role of gender and family economic status on senior high school students in Tehran. *Iranian journal of educational sociology*, 3(1), 106-118.

Federal Democratic Republic of Ethiopia (FDRE). (2009, September). *Higher education proclamation* (No. 650/2009). *Federal Negarit Gazeta*, 15(64), 4976–5044.

Felix-Ortiz, M., Newcomb, M., & Myers, H. (1994). A multidimensional measure of cultural identity for Latino and Latina adolescents. *Hispanic Journal of Behavioral Sciences*, 16(2), 99–116.

Fidell, S., Pearsons, K., Tabachnick, B., & Howe, R. (2000). Effects on sleep disturbance of changes in aircraft noise near three airports. *The Journal of the Acoustical Society of America*, 107(5), 2535–2547. <https://doi.org/10.1121/1.428641>

Finneran, N. (2003). The Persistence of memory: Nationalism, identity and the represented past. The Ethiopian experience in a global context. *Studies in Ethnicity and Nationalism*, 3(1), 21–37. <https://doi.org/10.1111/j.1754-9469.2003.tb00035.x>

Fisher, S., Zapolskib, T.B., Wheeler, L., Arora, P.G., Barnes-Najore, J. (2020). Multigroup Ethnic Identity Measurement invariance across adolescence and diverse ethnic groups. *Journal of Adolescence*, 83, 42–51. <https://doi.org/10.1016/j.adolescence.2020.07.006>

- Fiske, S., & Taylor, S. (2007). *Social Cognition: From Brains to Culture*. McGraw-Hill.
- Fisseha, Y. (2016). *Conceptualizations and impacts of multiculturalism in the Ethiopian education system*. University of Toronto.
- Fitch, K. (1998). *Speaking relationally: culture, communication and interpersonal connection*. Guildford Press.
- Flavell, J. H. (1979). Meta-cognition and cognitive monitoring: A new area of cognitive inquiry. *American Psychologist*, 34(10), 906–911. <https://doi.org/10.1037/0003-066X.34.10.906>
- Ford, M. E. (1994). A new conceptualization of social intelligence. In R. J. Sternberg (Ed.), *Encyclopedia of Human Intelligence* (pp. 974–978). NY: Macmillan Publishing Company.
- Ford, M. E., & Tisak, M. S. (1983). A further search for social intelligence. *Journal of Educational Psychology*, 75(2), 196–206. <https://doi.org/10.1037/0022-0663.75.2.196>
- Fox, J. (1991). *Regression Diagnostics*. Sage.
- Frankovsky, M., & Birknerová, Z. (2014). Measuring social intelligence-the MESI methodology. *Asian Social Science*, 10(6), 90-97. <https://doi.org/10.5539/ass.v10n6p90>
- Frankovsky, M., & Birkner, Z. (2014). Measuring Social Intelligence-The MESI Methodology. *Asian Social Science*, 10(6), 1911-2025.
- Frederiksen, N., Carlson, S., & Ward, W. C. (1984). The place of social intelligence in a taxonomy of cognitive abilities. *Intelligence*, 8(4), 315–337. [https://doi.org/10.1016/0160-2896\(84\)90015-1](https://doi.org/10.1016/0160-2896(84)90015-1)
- Gaines, S.O., Marelich, W., Bunce, D., Robertson, T., & Wright, B. (2013). Multigroup Ethnic Identity Measure (MEIM) expansion: measuring racial, religious, and national aspects of sense of ethnic identity within the United Kingdom. *Identity: An International Journal of Theory and Research*, 13 (4), 289–317. <https://doi.org/10.1080/15283488.2013.780973>

- Gardner, H. (1993). *Multiple intelligence: The theory in practice*. Basic Books.
- Gebrewold, B. (2009). Ethiopian nationalism: An ideology to transcend all odds. *Africa Spectrum*, 44(1), 79–97. <https://doi.org/10.1177/000203970904400106>
- Geleta, A., & Amsale, F. (2016). An assessment of educational leaders' multicultural competences in Ethiopian Public Universities. *European Scientific Journal*, 12(10), 387 – 402. <https://doi.org/10.19044/esj.2016.v12n10p387>
- Gellner, E. (1983). *Nations and nationalism*. Oxford.
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update* (4th ed.). Allyn & Bacon.
- Gorsuch, R. (1983). *Factor analysis* (2nd ed.). Lawrence Erlbaum Associates.
- Gravetter, F. J., & Wallnau, L. B. (2004). *Statistics for the behavioral sciences: A short course and student manual*. University Press of America.
- Grigorenko, E. L. (2000). Heritability and intelligence. In R. J. Sternberg (Ed.), *Handbook of Intelligence* (pp. 53–91). New York: Cambridge University Press.
<https://doi.org/10.1017/CBO9780511807947.005>
- Gross, R. (1996). *Psychology, the study of mind and behavior*. Hodder & Stoughton.
- Gudina, M. (2003). *Ethiopia: Competing ethnic nationalisms and the quest for democracy, 1960-2000*. Addis Ababa University Press.
- Guibernau, M. (2007). *The identity of nations*. Polity Press.
- Habib, S., Saleem, S., & Mahmood, Z. (2013). Development and validation of social intelligence scale for university students. *Pakistan Journal of Psychological Research*, 28(1), 65–83.
- Hair, J. F., Black, J. W.C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson Education Limited.

- Hair, J. F., Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.
- Hall, E. T. (1959). *The silent language*. Doubleday.
- Han, Z. (2010). On national identity, ethnic identity and cultural identity – An analysis and reflection based on historical philosophy. *Journal of Beijing Normal University (Social Science Edition)*, 1, 106–113.
- Hart, D., Richardson, C., & Wilkenfeld, B. (2011). Civic identity. In S. J. Schwartz, K. Luyckx, & V. L. Vignoles (Eds.), *Handbook of identity theory and research* (pp. 771–787). Springer.
https://doi.org/10.1007/978-1-4419-7988-9_32
- Haslam, S. A., Haslam, C., Cruwys, T., Jetten, J., Bentley, S. V., Fong, P., & Steffens, N. K. (2022). Social identity makes group-based social connection possible: Implications for loneliness and mental health. *Current opinion in psychology*, 43, 161–165.
<https://doi.org/10.1016/j.copsyc.2021.07.01>
- Haslam, S. A., Jetten, J., Postmes, T., & Haslam, C. (2009). Social identity, health and well-being: An emerging agenda for applied psychology. *Applied Psychology: An International Review* 58(1), 1-23. <https://doi.org/10.1111/j.1464-0597.2008.00379.x>
- Hedetoft, U., & Hjort, M. (2002). *The postnational self: Belonging and identity*. University of Minnesota Press.
- He, J. R., & Yan, J. R. (2008). Discussions from Ethnic Identity to National Identity. *Journal of the Central University for Nationalities: Philosophy and Social Sciences Edition*, 3, 5–12.
- Herrmann, R., Risse, T., & Brewer, M. (2004). *Transnational identities: Becoming European in the EU*. Rowman & Littlefield.

- Hogg, M. A., & Reid, S. A. (2006). Social identity, self-Categorization, and the communication of group norms. *Communication Theory* 16(1), 7–30. <https://doi.org/10.1111/j.1468-2885.2006.00003.x>
- Honeywill, R. (2016). *The man problem: destructive masculinity in Western culture*. Palgrave Macmillan.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1–55.
- Huddy, L., & Khatib, N. (2007). American patriotism, national identity, and political involvement. *American Journal of Political Science*, 51(1), 63–77. <https://doi.org/10.1111/j.1540-5907.2007.00237.x>
- Huddy, L., Ponte, A. D., & Davies, C. (2021). Nationalism, Patriotism, and Support for the European Union. *Political Psychology*, 42(6), 995–1017. <https://doi.org/10.1111/pops.12731>
- Hutchinson, J. (2019). Nations and nationalism: the first twenty-five years. *Journal of the Association for the Study of Ethnicity and Nationalism*, 25(1), 5–15. <https://doi.org/10.1111/nana.12489>
- Huynh, S. V. (2018) Social awareness and responsible decision making of students in grade 4 and 5 in Vietnam. *Journal of Education and Human Development*, 7(4), 7–15. <https://doi.org/10.15640/jehd.v7n4a2>
- Idrus, F. (2015). Examining classroom transformational spaces using the third space theory in developing students' sense of shared identity. *Theory and Practice in Language Studies*, 5(1), 28–37. <https://doi.org/10.17507/tpls.0501.04>

- Idrus, F. (2021). Exploring Cultural Intelligence Skills among International Postgraduate Students at a Higher Education Institution. *International Journal of Higher Education*, 10(4), 220–234. <https://doi.org/10.5430/ijhe.v10n4p220>
- Ilgen, D. R., & Klein, H. J. (1988). Individual motivation and performance: Cognitive influences on effort and choice. In J. P. Campbell, R. J. Campbell & Associates (Eds.), *Productivity in organizations* (pp. 143–176). Jossey-Bass.
- Imai, L., & Gelfand, M. (2010). The cultural intelligent negotiator: The impact of cultural intelligence (CQ) on negotiation sequences and outcomes. *Organizational Behavior and Human Decision Processes*, 112(2), 83–98. <https://doi.org/10.1016/j.obhdp.2010.02.001>
- Inzlicht, M., & Kang, S. K. (2010). Stereotype threat spillover: How coping with threats to social identity affects aggression, eating, decision making, and attention. *Journal of Personality and Social Psychology*, 99(3), 467–481. <https://doi.org/10.1037/a0018951>
- Ishiyama, J., & Basnet, P. (2022). Ethnic versus national identity in Ethiopia: Is ethnic identity growing and among whom? *African Security Review*, 31(1), 82–98. <https://doi.org/10.1080/10246029.2021.2009530>
- Jackson, J. W. (2002). Intergroup attitudes as a function of different dimensions of group identification and perceived intergroup conflict. *Self and Identity*, 1(1), 11–33. <https://doi.org/10.1080/152988602317232777>
- Jyoti, J., & Kour, S. (2015). Assessing the cultural intelligence and task performance equation: Mediating role of cultural adjustment. *Cross Cultural Management: An International Journal*, 22(2), 236–258. <https://doi.org/10.1108/CCM-04-2013-0072>

- Johnson, J., Lenartowicz, T., & Apud, S. (2006). Cross-cultural competence in international business: Toward a definition and a model. *Journal of International Business Studies*, 37, 525–543. <https://doi.org/10.1057/palgrave.jibs.8400205>
- Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and psychological measurement*, 20(1), 141-151. <http://dx.doi.org/10.1177/001316446002000116>
- Kanfer, R., & Heggstad, E. D. (1997). Motivational traits and skills: A person-centered approach to work motivation. *Research in Organizational Behavior*, 19, 1–56.
- Karasawa, M. (1991). Toward an assessment of social identity: The structure of group identification and its effects on in-group evaluations. *British Journal of Social Psychology*, 30, 293–307. <https://doi.org/10.1111/j.2044-8309.1991.tb00947.x>
- Keller, E. J., & Omwami, E. M. (2007). Federalism, citizenship and national identity in Ethiopia. *The International Journal of African Studies*, 6(1), 37–69.
- Kline, P. (1994). *An Easy Guide to Factor Analysis*. Routledge.
- Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.
- Kothari, C. R. (2004). *Research methodology: Methods and techniques* (2nd ed.). Wishwa Prakashan.
- Kraimer, M. L., Wayne, S. J., & Jaworski, R. A. (2001). Sources of support and expatriate performance: The mediating role of expatriate adjustment. *Personnel Psychology*, 54(1), 71–99. <https://doi.org/10.1111/j.1744-6570.2001.tb00086.x>
- Kriemeen, H., & Hajaia, S. (2017). Social Intelligence of Principals and Its Relationship with Creative Behavior. *World Journal of Education*, 7 (3) 84–91. doi.org/10.5430/wje.v7n3p84

- Kyoung, P. S., Ya Ki, Y., Eunju, S. (2019). Psychometric Properties of the Korean Version of the Tromsø Social Intelligence Scale. *The Korean Academy of Psychiatric and Mental Health Nursing*, 28(2), 165-171. <https://doi.org/10.12934/jkpmhn.2019.28.2.165>
- Kumar, K. (2003). *The Making of English National Identity*. Cambridge University Press.
- Kutner, M. H., Nachtsheim, C. J., Neter, J., & Li, W. (2005). *Applied linear statistical models*. McGraw-Hill.
- Lacanlale, E. P. (2013). Development and validation of a social intelligence inventory. *International Journal of Information and Education Technology*, 3(2), 263–267. <https://doi.org/10.7763/IJiet.2013.V3.277>
- Laitin, D., & Posner, D. (2001). The implications of constructivism for constructing ethnic fractionalization indices. *APSA-CP: Newsletter of the Organized Section in Comparative Politics of the American Political Science Association*, 12(1), 13–17.
- Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology*, 28(4), 563–575. <https://doi.org/10.1111/j.1744-6570.1975.tb01393.x>
- Levy, O., Beechler, S., Taylor, S., & Boyacigiller, N. A. (2007). What we talk about when we talk about ‘global mindset’: Managerial cognition in multinational corporations. *Journal of International Business Studies*, 38(2), 231–258. <https://doi.org/10.1057/palgrave.jibs.8400265>
- Liebman, J., et al. (2002). Cognitive and psychological correlates of adults’ eyewitness accuracy and suggestibility. *Personality and Individual Differences*, 33(1), 49–66. [https://doi.org/10.1016/S0191-8869\(01\)00135-0](https://doi.org/10.1016/S0191-8869(01)00135-0)

- Lubinski, D. (2000). Scientific and social significance of assessing individual differences: Sinking shafts at a few critical points. *Annual Review of Psychology*, 51, 405–444.
<https://doi.org/10.1146/annurev.psych.51.1.405>
- Lustig, M., & Koester, J. (1999). *Intercultural competence: Interpersonal communication across cultures* (3rd ed.). Addison Wesley Longman.
- Maehler, D. B., Zabal, A., & Hanke, K. (2019). Adults' Identity in Acculturation Settings: The Multigroup Ethnic & National Identity Measure (MENI). *Identity: An International Journal of Theory and Research*, 19(4), 245–257. <https://doi.org/10.1080/15283488.2019.164140>
- Marlowe, H. A. (1986). Social intelligence: Evidence for multidimensionality and construct independence. *Journal of Educational Psychology*, 78(1), 52–58.
<https://doi.org/10.1037/0022-0663.78.1.52>
- Mason, J. (2002). *Qualitative researching*. (2nd ed.). Sage.
- Mastrotheodoros, S., Dimitrova, R., Motti-Stefanidi, F., Abubakar, A., & Schoot, R. (2012). Measurement invariance of the Multigroup Ethnic Identity Measure (MEIM) across Bulgarian, Dutch and Greek samples. *European Journal of Developmental Psychology*, 9(4), 508–515. <https://doi.org/10.1080/17405629.2012.688099>
- Mayer, J., & Salovey, P. (1993). The intelligence of emotional intelligence. *Intelligence*, 17(4), 433–442. [https://doi.org/10.1016/0160-2896\(93\)90010-3](https://doi.org/10.1016/0160-2896(93)90010-3)
- Mayer, J., Caruso, D., & Salovey, P. (2000). Emotional intelligence meets traditional standards for an intelligence. *Intelligence*, 27(4), 267–298.
- McFatter, R. M. (1979). The use of structural equation models in interpreting regression equations including suppressor and enhancer variables. *Applied Psychological Measurement*, 3(1), 123–135. <https://doi.org/10.1177/014662167900300113>

- Meade, A. W., Johnson, E. C., & Braddy, P. W. (2008). Power and sensitivity of alternative fit indices in tests of measurement invariance. *Journal of Applied Psychology, 93*(3), 568–592. <https://doi.org/10.1037/0021-9010.93.3.568>
- Miguel, E. (2004). Tribe or nation? Nation-building and public goods in Kenya versus Tanzania. *World Politics, 56* (3), 327–362. <https://doi.org/10.1017/S0043887100004330>
- Miller, D., & Ross, M. (1975). Self-serving bias in attribution of causality: Fact or fiction? *Psychological Bulletin, 82*(2), 213–225. <https://doi.org/10.1037/h0076486>
- Miltenberger, R. G., Fuqua, W. R., & Woods, D. W. (1998). Applying behavior analysis to clinical problems: Review and analysis of habit reversal. *Journal of Applied Behavioral Analysis, 31*(3), 447–469. <https://doi.org/10.1901/jaba.1998.31-447>
- MoE. (2011). *Education Statistics: Annual Abstract*. Addis Ababa: Ministry of Education.
- Moon, T. (2010a). Emotional intelligence correlates of the four-factor model of cultural intelligence. *Journal of Managerial Psychology, 25*(8), 876–898.
- Mummendey, A., Kessler, T., Klink, A., & Mielke, R. (1999). Strategies to cope with negative social identity: Predictions by social identity theory and relative deprivation theory. *Journal of Personality and Social Psychology, 76*(2), 229–245.
- Murdock, G. P. (1987). *Outline of cultural materials* (5th rev. ed.). HRAF.
- Murphy, K. R. (1996). *Individual differences and behavior in organizations*. Jossey-Bass.
- Musso, P., Moscardino, U., & Inguglia, C. (2017). The Multigroup Ethnic Identity Measure–Revised (MEIM-R): Psychometric evaluation with adolescents from diverse ethnocultural groups in Italy, *European Journal of Developmental Psychology*. Taylor & Francis Group. <https://doi.org/10.1080/17405629.2016.1278363>

- Nelson, T. O. (1996). Consciousness and meta-cognition. *American Psychologist*, 51(2), 102–116. <https://doi.org/10.1037/0003-066X.51.2.102>
- Nigbur, D., & Cinnirella, M. (2007). National identification, type and specificity of comparison and their effects on descriptions of national character. *European Journal of Social Psychology*, 37(4), 672–691. <https://doi.org/10.1002/ejsp.382>
- Nunnally, J.C. (1978) *Psychometric theory* (2nd Ed.). McGraw-Hill.
- Omogbai, E. O., & Jesuorobo, W. O. (2024). Social Intelligence as a predictor of competencies among prospective counselors in public universities. *Academic Journal of Psychology and Counseling*, 5(2), 126–149. <https://doi.org/10.22515/ajpc.v5i2.8548>
- Pabian, S., & Vandebosch, H. (2014). Developmental trajectories of cyberbullying perpetration and social intelligence during early adolescence. *Journal of Early Adolescence*, 36(2), 145–170. <http://dx.doi.org/doi:10.1177/0272431614556891>.
- Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. Routledge.
- Phinney, J. S. (1990). Ethnic identity in adolescents and adults: Review of research. *Psychological Bulletin*, 108(3), 499–514. <https://doi.org/10.1037/0033-2909.108.3.499>
- Phinney, J. S. (1992). The multigroup ethnic identity measure: A new scale for use with diverse groups. *Journal of Adolescent Research*, 7(2), 156–176. <https://doi.org/10.1177/074355489272003>
- Phinney, J. S., & Ong, A. (2007). Conceptualization and measurement of ethnic identity: current status and future directions. *Journal of Counseling Psychology*, 54(3), 271–281. <https://doi.org/10.1037/0022-0167.54.3.271>
- Phinney, J. S., Berry, J. W., Vedder, P., & Liebkind, K. (2006). The acculturation experience:

- Attitudes, identities and behaviors of immigrant youth. In J. W. Berry, J. S. Phinney, D. L. Sam, & P. Vedder (Eds.), *Immigrant youth in cultural transition: Acculturation, identity, and adaptation across national contexts* (pp. 71–116). Lawrence Erlbaum Associates.
<https://doi.org/10.4324/9780415963619-4>
- Prasolova-Førland, E. (2004, November). Supporting social awareness among university students in 3D CVEs: Benefits and limitations. In Proceedings of the 2004 International Conference on Cyberworlds (pp. 127–134). IEEE. <https://doi.org/10.1109/CW.2004.59>
- Presbitero, A. (2016). Cultural intelligence (CQ) in virtual, cross-cultural intelligence: Generalizability of measure and links to personality dimensions and task performance. *International Journal of Intercultural Relations*, 50, 29–38.
<https://doi.org/10.1016/j.ijintrel.2015.11.001>
- Prinz, W. (1999). NESSIE: An awareness environment for cooperative settings. In S. Bødker, M. Kyng, & Schmidt, K. (Eds.), *ECSCW '99*. Springer. https://doi.org/10.1007/0-306-47316-X_21
- Ramalu, S. S., Rose, R. C., Kumar, N., & Uli, J. (2010). Doing business in global arena: An examination of the relationship between cultural intelligence and cross-cultural adjustment. *Asian Academy of Management Journal*, 15(1), 79–97.
- Reise, S. P., Widaman, K. F., & Pugh, R. H. (1993). Confirmatory factor analysis and item response theory: two approaches for exploring measurement invariance. *Psychological Bulletin*, 114(3), 552–566. <https://doi.org/10.1037/0033-2909.114.3.552>
- Riggio, R. E. (1986). Assessment of basic social skills. *Journal of Personality and Social Psychology*, 51(3), 649–660. <https://doi.org/10.1037/0022-3514.51.3.649>
- Roberts, R. E., Phinney, J. S., Masse, L. C., Chen, Y., Roberts, C. R., & Romero, A. (1999). The

structure of ethnic identity of young adolescents from diverse ethnocultural groups. *The Journal of Early Adolescence*, 19(3), 301-322.

<https://doi.org/10.1177/0272431699019003001>

Robinson, A. L. (2009). *National versus ethnic identity in Africa: State, group, and individual level correlates of national identification*. Afrobarometer Working Papers, 112.

Afrobarometer.

Rubin, A., & Babbie, E. (1997). *Research methods for social work* (3rd ed.). Brooks/Cole.

Ruzgis, P., & Grigorenko, E. L. (1994). Cultural meaning systems, intelligence, and personality.

In R. J. Sternberg and P. Ruzgis (eds). *Personality and intelligence*. Cambridge University Press.

Sahin, F., Gurbuz, S., Koksall, O., & Ercan O. (2013). Measuring cultural intelligence in the Turkish context. *International Journal of Selection and Assessment*, 21(2), 135–144.

<https://doi.org/10.1111/ijsa.12024>

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality*, 9(3), 185–211. <https://doi.org/10.2190/DUGG-P24E-52WK-6CDG>

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*, (4th ed.). England: Pearson Education Limited.

Scherer, K. R. (2007). Componential emotion theory can inform models of emotional competence. In G. Matthews, M. Zeidner & R. D. Roberts (Eds.), *The Science of Emotional Intelligence: Knowns and Unknowns*. (pp. 101–126). Oxford University Press.

Schmidt, F. L., & Hunter, J. E. (1998). The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings.

Psychological Bulletin, 124(2), 262–274. <https://doi.org/10.1037/0033-2909.124.2.262>

Schutte, N. S., et al. (1998). Development and validation of a measure of emotional intelligence.

Personality and Individual Differences, 25(2), 167–177. [https://doi.org/10.1016/S0191-8869\(98\)00001-4](https://doi.org/10.1016/S0191-8869(98)00001-4)

Schwartz, S. J., Park, I. J. K., Huynh, Q.-L., Zamboanga, B. L., Umaña-Taylor, A. J., Lee, R.,

Rodriguez, L. M., Kim, S. Y., Whitbourne, S. K., Castillo, L. G., Weisskirch, R. S.,

Vazsonyi, A. T., Williams, M. K., & Agocha, V. B. (2012). The American Identity Measure:

Development and validation across ethnic group and immigrant generation. *Identity: An*

International Journal of Theory and Research, 12(2), 93–128

<https://doi.org/10.1080/15283488.2012.668730>

Schwartz, S.J., Unger, J.B., Des Rosiers, S.E., Lorenzo-Blanco, E.I., Zamboanga, B.L., Huang,

S., Baezconde-Garbanati, L., Villamar, J.A., Soto, D.W., Pattarroyo, M., & Szapocznik, J.

(2014). Domains of acculturation and their effects on substance use and sexual behavior in

recent Hispanic immigrant adolescents. *Prevention Science*, 15 (3), 385–396.

<https://doi.org/10.1007/s11121-013-0419-1>

Sellers, R. M., Smith, M. A., Shelton, J., Rowley, S. A., & Chavous, T. M. (1998).

Multidimensional model of racial identity: A reconceptualization of African American racial

identity. *Personality and Social Psychology Review*, 2(1), 18–39.

https://doi.org/10.1207/s15327957pspr0201_2

Semela, T. (2012). Intergroup relations among the Ethiopian youth: Effects of ethnicity,

language, and religious background. *Journal of Developing Societies*, 28(3), 323–354.

<https://doi.org/10.1177/0169796X12453782>

- Senel, M. (2020). Investigation of the Cultural Intelligence Levels of the Turkish University Students at Foreign Language Departments. *International Journal of Language Education*, 4(3), 361–377. <https://doi.org/10.26858/ijole.v4i3.14806>
- Shannon, L. M., & Begley, T. M. (2008). Antecedents of four-factor model of cultural intelligence. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence* (pp. 41–55). M.E. Sharpe.
- Shetzer, L. (1993). A social information processing model of employee participation. *Organizational Science*, 4(2), 252–268. <https://doi.org/10.1287/orsc.4.2.252>
- Shokef, E., & Erez, M. (2008). Cultural intelligence and global identity in multicultural teams. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence* (pp. 177–191). M.E. Sharpe.
- Shrestha, N. (2021). Factor Analysis as a Tool for Survey Analysis. *American Journal of Applied Mathematics and Statistics*, 9(1), 4–11. <http://doi.org/10.12691/ajams-9-1-2>.
- Shulman, S. (2002). Challenging the civic/ethnic and west/east dichotomies in the study of nationalism. *Comparative Political Studies*, 35(5), 554–585. <https://doi.org/10.1177/0010414002035005003>
- Silvera, D., Martinussen, M., & Dahl, T. (2001). The Tromso Social Intelligence Scale, a self-report measure of social intelligence. *Scandinavian Journal of Psychology*, 42(4), 313–319. <http://dx.doi.org/10.1111/1467-9450.00242>
- Simon, B. (2004). Identity in a modern society: *A social psychological perspective*. Blackwell.
- Simon, B., & Grabow, O. (2010). The politicization of migrants: Further evidence that politicized collective identity is a dual identity. *Political Psychology*, 31(5), 717–738. <https://doi.org/10.1111/j.1467-9221.2010.00782.x>

- Simon, B., & Ruhs, D. (2008). Identity and politicization among Turkish migrants in Germany: the role of dual identification. *Journal of Personality and Social Psychology*, 95(6), 1354–1366. <https://doi.org/10.1037/a0012630>
- Singleton, R. A., & Straits, B. C. (2009). *Approaches to social research* (5th ed.). Oxford University Press.
- Small, A. D., & Verrochi, M. N. (2009). The face of need: Facial emotion expression on charity advertisements. *Journal of Marketing Research*, 46(6), 777–787. https://doi.org/10.1509/jmkr.46.6.777_JMR6F
- Smith, A. D. (1992). National identity and the idea of European unity. *International Affairs*, 68(1), 55–76.
- Smith, P. B., Giannini, M., Helkama, K., Maczynski, J., & Stumpf, S. (2005). Positive autostereotyping and self-construal as predictors of national identification. *International Review of Social Psychology*, 18(1), 65–90.
- Sousa, M., Fontão, E., Machado, I., Mendonça, J., Rodrigues, J., & Freitas, C. (2023). Assessing cultural intelligence and its antecedents in the Portuguese higher education context. *Education Sciences*, 13(6), 546. <https://doi.org/10.3390/educsci13060546>
- Sternberg, R. J. (1985). *Beyond IQ: A triarchic theory of human intelligence*. Cambridge University Press.
- Sternberg, R. J. (2003). A broad view of intelligence: The theory of successful intelligence. *Consulting Psychology Journal: Practice and Research*, 55(3), 139–154. <https://doi.org/10.1037/1061-4087.55.3.139>
- Sternberg, R. J. (1988). *The triarchic mind: A new theory of human intelligence*. Viking.
- Sternberg, R. J. (2004). *Handbook of intelligence*. Cambridge University Press.

- Sternberg, R. J. (2018). The triarchic theory of successful intelligence. In D. P. Flanagan & E. M. McDonough (Eds.), *Contemporary intellectual assessment: Theories, tests, and issues* (pp. 174–194). The Guilford Press.
- Sternberg, R. J., & Berg, C. A. (1986). Quantitative integration: Definitions of intelligence: A comparison of the 1921 and 1986 symposia. In R. J. Sternberg & D. K. Detterman (Eds.), *What is intelligence? Contemporary viewpoints on its nature and definition* (pp. 155–162). Ablex.
- Sternberg, R. J., & Detterman, D. K. (1986). *What is intelligence? Contemporary viewpoints on its nature and definition*. Ablex.
- Sternberg, R. J., Forsythe, G. B., Horvath, J., Hedlund, J., Snook, S., Williams, W. M., Wagner, R. K., & Grigorenko, E. L. (2000). *Practical intelligence in everyday life*. Cambridge University Press.
- Sternberg, R. J., & Wagner, R. K. (1989). Individual differences in practical knowledge and its acquisition. In P. L. Akerman, R. J. Sternberg & R. Glaser (Eds.), *Learning and individual differences: Advances in theory and research* (pp. 255–278). New York: Freeman.
- Stets, J. E., & Burke, P. J. (2000). Identity theory and social identity theory. *Social Psychology Quarterly*, 63(3), 224–237. <https://doi.org/10.2307/2695870>
- Stevens, J. P. (2009). *Applied multivariate statistics for the social sciences* (5th ed.). Routledge Taylor & Francis Group.
- Storm, E. (2022). The rise of the nation-state during the Age of Revolution: Revisiting the debate on the roots of nations and nationalism. *Journal of the Association for the Study of Ethnicity and Nationalism*, 28(4), 1137–1151. <https://doi.org/10.1111/nana.12857>
- SuB, H.-M., & Beauducel, A. (2005). Faceted models of intelligence. In O. Wilhelm & R. W.

- Engle (Eds.), *Handbook of understanding and measuring intelligence* (pp. 313–332). Sage Publications. <https://doi.org/10.4135/9781452233529.n18>
- Subramaniam, A., Ramalu, I., Wei, C. C., & Rose, R. C. (2011). The effects of cultural intelligence on cross-cultural adjustment and job performance amongst expatriates in Malaysia. *International Journal of Business and Social Science*, 2(9), 59–71.
- Suinn, R., Ahuna, C., & Khoo, G. (1992). The Suinn-Lew Asian self-identity acculturation scale: Concurrent and factorial validation. *Educational and Psychological Measurement*, 52(4), 1041–1046. <https://doi.org/10.1177/0013164492052004028>
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using Multivariate Statistics* (5th ed.). Allyn and Bacon.
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics*. Pearson.
- Tajfel, H., & Forgas, J. P. (2000). Social categorization: Cognitions, values and groups. In C. Stangor (Ed.), *Stereotypes and prejudice: Essential readings* (pp. 49–63). Psychology Press.
- Tajfel, H., & Turner, J. (1979). An integrative theory of intergroup conflict. In G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Brooks/Cole.
- Tajfel, H., & Turner, J. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. Austin (Eds.), *Psychology of intergroup relations* (pp. 7–24). Nelson-Hall.
- Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology*, 33, 1–39. <https://doi.org/10.1146/annurev.ps.33.020182.000245>
- Tajfel, H. (1981). *Human Groups and Social categories*. Cambridge University Press.
- Tajfel, H., & Fraser, C. (1978). *Introducing social psychology: An analysis of individual reaction and response*. Penguin Press.

- Takeuchi, R., Tesluk, P. E., Yun, S., & Lepak, D. P. (2005). An integrative view of international experiences. *Academy of Management Journal*, 48(1), 85–100.
<https://doi.org/10.5465/amj.2005.15993143>
- Tariques, I., & Takeuchi, R. (2008). Developing cultural intelligence: The roles of international network experiences. In S. Ang, & L. Van Dyne (Eds.), *Handbook of cultural intelligence: Theory, measurement, and applications* (pp. 56-70). M.E Sharpe.
- Taye, B. A. (2017). Ethnic federalism and conflict in Ethiopia. *African journal on conflict resolution*, 17(2), 41–66.
- Taylor, S. J. A. (1996). *Constructions of national identity and the nation: The case of New Zealand/Aotearoa* (Unpublished thesis). Open University, United Kingdom.
- Teferi, L. (2012). The post 1991 ‘inter-ethnic’ conflicts in Ethiopia: An investigation. *Journal of Law and Conflict Resolution*, 4(4), 62–69.
- Teneta-Skwiercz, D. (2022). Diagnosis of the level of cultural intelligence among students of economics universities in Poland. *e-mentor*, 2(94), 28–35.
<https://doi.org/10.15219/em94.1560>
- Theiss-Morse, E. (2009). Who counts as an American? *The Boundaries of National Identity*. Cambridge University Press.
- Thomas, D. C., & Inkson, K. (2003). *Cultural Intelligence: People skills for global business*. Berrett-Koehler.
- Tigner, R. B., & Tigner, S. S. (2000). Triarchic theories of intelligence: Aristotle and Sternberg. *History of Psychology*, 3(2), 168–176. <https://doi.org/10.1037/1093-4510.3.2.168>
- Ting, S. H., & Ting, S. L. (2020). Ethnic identity and other-group orientation of ethnic Chinese in Malaysia. *International Journal of Society, Culture & Language*, 8(2), 75–89.

- Ting-Toomey, S. (1999). *Communicating Across Cultures*. Guilford Press.
- Torsti, P. (2004). History culture and banal nationalism in post-war Bosnia. *Southeast European Politics*, 5(2-3), 142–157.
- Triandis, H. C. (1994). *Cultural and social behavior*. McGraw-Hill.
- Triandis, H. C. (2006). Cultural intelligence in organizations. *Group and Organization Management*, 31(1), 20–26. <https://doi.org/10.1177/1059601105275253>
- Turner, J. C., & Giles, H. (1981). Introduction: The social psychology of intergroup behaviour. *Intergroup behavior*, 1–32.
- Umana-Taylor, A. J., Yazedjian, A., & Bamaca-Gomez, M. (2004). Developing the ethnic identity scale using Eriksonian and social identity perspectives. *Identity: An International Journal of Theory and Research*, 4(1), 9–38. https://doi.org/10.1207/S1532706XID0401_2
- Uygun, K., & Aribas, B. B. (2020). Examining the relationship between social intelligence levels and communication skills of prospective social studies teachers. *Educational policy analysis and strategic research*, 15(1), 232–252. <https://doi.org/10.29329/epasr.2020.236.13>
- Vandenberg, R. J., & Lance, C. E. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices, and recommendations for organizational research. *Organizational Research Methods*, 3(1), 4–70. <https://doi.org/10.1177/109442810031002>
- Vaughan, S. (2003). *Ethnicity and Power in Ethiopia*. The University of Edinburgh.
- Vedder, P. (2005). Language, ethnic identity, and the adaptation of immigrant youth in the Netherlands. *Journal of Adolescent Research*, 20(3), 396–416. <https://doi.org/10.1177/0743558405274853>

- Verkuyten, M., & Martinovic, B. (2012). Immigrants' national identification: Meanings, determinants, and consequences. *Social Issues and Policy Review*, 6(1), 82–112.
<https://doi.org/10.1111/j.1751-2409.2011.01036.x>
- Vignoles, V., Regalia, C., Manzi, C., Golledge, J., & Scabini, E. (2006). Beyond self-esteem: Influence of multiple motives on identity construction. *Journal of Personality and Social Psychology*, 90(2), 308–333. <https://doi.org/10.1037/0022-3514.90.2.308>
- Wagner, R. K., & Sternberg, R. J. (1985). Practical intelligence in real-world pursuits: The role of tacit knowledge. *Journal of personality and social psychology*, 49(2), 436. 436–458.
<https://doi.org/10.1037/0022-3514.49.2.436>
- Ward, C., Fischer, R., Lam, F., & Hall, L. (2009). The convergent, discriminant, and incremental validity of scores on a self-report measure of cultural intelligence. *Educational and Psychological Measurement*, 69(1), 85–105. <https://doi.org/10.1177/0013164408322001>
- Ward C, Wilson J, & Fischer, R. (2011). Assessing the predictive validity of cultural intelligence over time. *Personality and Individual Differences*, 51(2), 138–142.
<https://doi.org/10.1016/j.paid.2011.03.032>
- Weis, S., & SuB, H. M. (2005). Social intelligence – A review and critical discussion of measurement concepts. In R. Schulze & R. D. Roberts (Eds.), *An International Handbook of Emotional Intelligence* (pp. 203–230). Gottingen: Hogrefe.
- Weis, S., & Suß, H. M. (2007). Reviving the search for social intelligence—A multitrait-multimethod study of its structure and construct validity. *Personality and individual differences*, 42(1), 3–14. <https://doi.org/10.1016/j.paid.2006.04.027>
- Westfall, P. H. (2014). Kurtosis as peakedness, 1905–2014. RIP. *The American Statistician*, 68(3), 191-195. <https://doi.org/10.1080/00031305.2014.917055>

- Westle, B. (2012). European identity as a contrast or an extension of national identity? On the meaning of European identity. In S. Salzborn, E. Davidov, & J. Reinecke (Eds.), *Methods, theories, and empirical applications in the social sciences* (pp. 249–254). VS Verlag für Sozialwissenschaften. https://doi.org/10.1007/978-3-531-18898-0_30
- Widaman, K. F., & Reise, S. P. (1997). Exploring the measurement invariance of psychological instruments: Applications in the substance use domain. In K. J. Bryant, M. Windle, & S. G. West (Eds.), *The science of prevention: Methodological advances from alcohol and substance abuse research* (pp. 281–324). American Psychological Association. <https://doi.org/10.1037/10222-009>
- Wiggins, J. S. (1974). Personality and prediction: Principles of personality assessment. *Educational and Psychological Measurement*, 34(1), 202–205. <https://doi.org/10.1177/001316447403400142>
- Wild, B., Erb, M., & Bartels, M. (2001). Are emotions contagious? Evoked emotions while viewing emotionally expressive faces: quality, quantity, time course and gender differences. *Psychiatry Research* 102(2), 109–124. [https://doi.org/10.1016/S0165-1781\(01\)00225-6](https://doi.org/10.1016/S0165-1781(01)00225-6)
- Windari, T. (2021). National identity attachment and its variables. *Journal of International Women's Studies*, 22(3), 81–95. <https://vc.bridgew.edu/jiws/vol22/iss3/9>
- Woods, E.T., & Debs, M. (2013). Towards a cultural sociology of nations and nationalism. *Nations and Nationalism*, 19(4), 607–614. <https://doi.org/10.1111/nana.12036>
- Wong, C.-M., Day, J. D., Maxwell, S. E., & Meara, N. M. (1995). A multitrait–multimethod study of academic and social intelligence in college students. *Journal of Educational Psychology*, 87(1), 117–133. <https://doi.org/10.1037/0022-0663.87.1.117>

- Wyer, R. S. (2004). *Social comprehension and judgment: The role of situation models, narratives and implicit theories*. Erlbaum. <https://doi.org/10.4324/9781410609007>
- Wyer, R. S., & Srull, T. K. (1980). The processing of social stimulus information: A conceptual integration. In R. Hastie, T.M. Ostrom, E.B. Ebbesen, R.S. Wyer, D. L. Hamilton and D. E. Carlston (Eds.), *Person Memory: The Cognitive Basis of Social Perception*. Erlbaum.
- Wynter, S., Duran-Cogan, M. F., & Gomez-Moriana, A. (2001). *National Identities and Sociopolitical Changes in Latin America*. Routledge
- Yamane, T. (1967). *Statistics: An Introductory Analysis*, (2nd Ed.). Harper and Row.
- Yoon, E. (2011). Measuring ethnic identity in the ethnic identity scale and the multigroup ethnic identity measure-revised. *Cultural Diversity and Ethnic Minority Psychology*, 17(2), 144–155. <https://doi.org/10.1037/a0023361>
- Yusuf, S. (2019). What is driving Ethiopia’s ethnic conflicts? *ISS East Africa Report*, 2019(28), 1–16. <https://hdl.handle.net/10520/EJC-1fda629dc3>
- Zautra, E. K., Zautra, A. J., Gallardo, C. E., & Velasco, L. (2015). Can we learn to treat one another better? A test of a social intelligence curriculum. *PLOS ONE*, 10(6), e0128638. <https://doi.org/10.1371/journal.pone.0128638>
- Zautra, A. J., Infurna, F. G., Zautra, E. K., Gallardo, C. E., & Velasco, L. (2016). The humanization of social relations: Nourishment for resilience. In A. D. Ong & C. E. Löckenhoff (Eds.), *Emotion, aging, and health* (pp. 207–227). American Psychological Association. <https://doi.org/10.1037/14857-011>
- Zheng, Y. N. (2004, August 16). China should build national identity. *Global Times* (pp. 8–16). <http://www.people.com.cn/GB/paper68/12730/1143827.html>

Ziemes, J. F., Hahn-Laudenberg, K., & Abs H. J. (2019). From connectedness and learning to European and national identity: results from fourteen European countries. *Journal of Social Science Education*, 18(3), 5–28. <http://doi.org/10.4119/jsse-1144>

APPENDICES

Appendix A Correlation Matrices

Table A1.

Correlation Matrix of the National Identity Measure With Poor Items

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Exp1	-														
2. Exp4	.84	-													
3. Exp5	.75	.75	-												
4. Exp6	.68	.69	.68	-											
5. Exp7	.68	.70	.63	.78	-										
6. Exp8	.62	.67	.72	.66	.66	-									
7. Com1	.43	.46	.47	.57	.54	.50	-								
8. Com2	.30	.36	.39	.40	.39	.39	.73	-							
9. Com3	.44	.46	.49	.56	.53	.48	.82	.73	-						
10. Com4	.35	.33	.41	.41	.39	.40	.66	.60	.62	-					
11. Com5	.36	.35	.42	.46	.41	.40	.74	.69	.68	.71	-				
12. Com6	.33	.37	.41	.45	.43	.42	.75	.81	.74	.61	.77	-			
13. Com7	.32	.35	.43	.43	.41	.42	.74	.68	.70	.57	.70	.83	-		
14. Exp2	-.06	-.03	-.02	-.01	-.09	-.05	.05	.11	.01	-.04	.05	.09	.11	-	
15. Exp3	-.08	-.10	-.03	-.01	.02	-.03	-.09	-.01	-.00	.02	-.02	.02	-.00	-.02	-

Note. Correlation is significant at the 0.05 level (2-tailed).

Table A2.

Correlation Matrix of the National Identity Measure after Poor Items are Discarded

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Exp1	-												
2. Exp4	.84	-											
3. Exp5	.75	.75	-										
4. Exp6	.68	.69	.68	-									
5. Exp7	.68	.70	.63	.78	-								
6. Exp8	.62	.67	.72	.66	.66	-							
7. Com1	.43	.46	.47	.57	.54	.50	-						
8. Com2	.30	.36	.39	.40	.39	.39	.73	-					
9. Com3	.44	.46	.49	.56	.53	.48	.82	.73	-				
10. Com4	.35	.33	.41	.41	.39	.40	.66	.60	.62	-			
11. Com5	.36	.35	.42	.46	.41	.40	.74	.69	.68	.71	-		
12. Com6	.33	.37	.41	.45	.43	.42	.75	.81	.74	.61	.77	-	
13. Com7	.32	.35	.43	.43	.41	.42	.74	.68	.70	.57	.70	.83	-

Note. Correlation is significant at the 0.05 level (2-tailed).

Table A3.*Correlation Matrix of the Social Intelligence Scale Before Poor Items are Discarded*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. SIP1	-																				
2. SIP2	.70**	-																			
3. SIP3	.80**	.71**	-																		
4. SIP4	.69**	.67**	.72**	-																	
5. SIP5	.73**	.66**	.75**	.80**	-																
6. SIP6	.65**	.66**	.63**	.74**	.76**	-															
7. SIP7	.62**	.61**	.67**	.67**	.74**	.81**	-														
8. SS1	.17*	.07	.22**	.19*	.21**	.14	.25**	-													
9. SS2	.19*	.08	.22**	.21**	.19*	.15	.22**	.70**	-												
10. SS3	.30**	.22**	.30**	.27**	.31**	.25**	.28**	.63**	.65**	-											
11. SS4	-.13	-.12	-.12	-.21**	-.13	-.16*	-.18*	-.38**	-.29**	-.31**	-										
12. SS5	.19*	.06	.16*	.24**	.20*	.14	.13	.57**	.54**	.63**	-.34**	-									
13. SS6	.31**	.18*	.32**	.36**	.33**	.23**	.29**	.55**	.70**	.65**	-.29**	.68**	-								
14. SS7	.26**	.10	.29**	.24**	.26**	.20*	.21**	.60**	.55**	.55**	-.33**	.66**	.72**	-							
15. SA1	.16*	.04	.17*	.16*	.19*	.13	.22**	.22**	.15	.20*	-.04	.22**	.24**	.25**	-						
16. SA2	.14	.12	.20*	.15*	.16*	.16*	.17*	.27**	.20**	.30**	-.06	.32**	.27**	.25**	.65**	-					
17. SA3	.10	.07	.20**	.10	.14	.15	.14	.28**	.17*	.32**	-.05	.32**	.28**	.30**	.59**	.66**	-				
18. SA4	.04	.01	.09	.04	.08	.06	.08	.12	.07	.13	.05	.20	.10	.12	.56**	.55**	.58**	-			
19. SA5	.01	-.03	.04	.04	.06	.04	.12	.30**	.09	.20**	-.03	.29**	.17*	.26**	.59**	.62**	.63**	.52**	-		
20. SA6	.13	.08	.13	.10	.13	.13	.16*	.24**	.14	.25**	-.02	.24**	.21**	.22**	.57**	.77**	.59**	.61**	.61**	-	
21. SA7	-.07	-.16*	-.06	-.10	-.08	-.06	-.05	-.16*	-.02	-.12	.18*	-.20*	-.14	-.25**	-.21**	-.13	-.17*	-.15	-.26**	-.09	-

**Correlation is significant at the 0.01 level (2-tailed); *Correlation is significant at the 0.05 level (2-tailed); SIP = social information processing; SSs = social skills; SA = social awareness.

Table A4.*Correlation Matrix of the Social Intelligence Scale after Poor Items are Discarded*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. SIP1	-																		
2. SIP2	.70**	-																	
3. SIP3	.80**	.71**	-																
4. SIP4	.69**	.67**	.72**	-															
5. SIP5	.73**	.66**	.75**	.80**	-														
6. SIP6	.65**	.66**	.63**	.74**	.76**	-													
7. SIP7	.62**	.61**	.67**	.67**	.74**	.81**	-												
8. SS1	.17*	.07	.21**	.19*	.21**	.14	.25**	-											
9. SS2	.19*	.08	.22**	.21**	.19*	.15	.22**	.70**	-										
10. SS3	.30**	.22**	.30**	.27**	.31**	.25**	.28**	.63**	.65**	-									
11. SS5	.19*	.06	.19*	.24**	.20*	.14	.13	.57**	.54**	.63**	-								
12. SS6	.31**	.18*	.32**	.36**	.33**	.23**	.29**	.55**	.70**	.65**	.68**	-							
13. SS7	.26**	.10	.29**	.24**	.26**	.20*	.21**	.60**	.55**	.55**	.66**	.72**	-						
14. SA1	.16*	.04	.17*	.16*	.19*	.13	.22**	.22**	.15	.20*	.22**	.24**	.25**	-					
15. SA2	.14	.12	.20*	.15*	.17*	.16*	.17*	.27**	.20**	.30**	.32**	.27**	.25**	.65**	-				
16. SA3	.10	.07	.20**	.10	.14	.15	.14	.28**	.17*	.32**	.32**	.28**	.30**	.59**	.66**	-			
17. SA4	.04	.01	.09	.04	.08	.06	.08	.12	.07	.13	.10	.10	.12	.56**	.55**	.58**	-		
18. SA5	.01	-.03	.04	.04	.06	.04	.12	.30**	.09	.20**	.29**	.17*	.26**	.59**	.62**	.63**	.53**	-	
19. SA6	.13	.08	.13	.10	.13	.13	.16*	.25**	.14	.25**	.24**	.21**	.22**	.57**	.77**	.59**	.61**	.61**	-

** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed); SIP = social information processing; SSs = social skills; SA = social awareness.

Table A5.*Correlation Matrix of the Cultural Intelligence Items of the Exploratory Factor Analysis*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.MetaCog1	-																			
2.MetaCog2	.57**	-																		
3. MetaCog3	.49**	.53**	-																	
4. MetaCog4	.43**	.51**	.51**	-																
5. Cog1	.14	.28**	.26**	.28**	-															
6. Cog2	.33**	.39**	.39**	.36**	.52**	-														
7. Cog3	.33**	.28**	.42**	.34**	.36**	.51**	-													
8. Cog4	.30**	.33**	.34**	.36**	.36**	.54**	.73**	-												
9. Cog5	.23**	.28**	.36**	.42**	.44**	.54**	.61**	.74**	-											
10. Cog6	.25**	.24**	.25**	.37**	.52**	.52**	.56**	.62**	.70**	-										
11. Motiv1	.42**	.44**	.45**	.27**	.17*	.41**	.40**	.40**	.27**	.35**	-									
12. Motiv2	.45**	.40**	.44**	.26**	.12	.30**	.38**	.39**	.28**	.34**	.67**	-								
13. Motiv3	.49**	.47**	.42**	.378**	.06	.36**	.42**	.49**	.33**	.36**	.72**	.67**	-							
14. Motiv4	.36**	.41**	.35**	.31**	.21**	.35**	.32**	.32**	.22**	.33**	.50**	.58**	.53**	-						
15. Motiv5	.46**	.48**	.42**	.43**	.34**	.46**	.43**	.40**	.34**	.49**	.55**	.59**	.58**	.69**	-					
16. Bhral1	.28**	.29**	.35**	.30**	.22**	.25**	.45**	.45**	.36**	.38**	.39**	.39**	.44**	.43**	.47**	-				
17. Bhral2	.37**	.36**	.40**	.23**	.26**	.24**	.34**	.37**	.28**	.23**	.403**	.35**	.323**	.38**	.39**	.61**	-			
18. Bhval3	.32**	.33**	.34**	.29**	.11	.27**	.34**	.37**	.31**	.21**	.37**	.43**	.36**	.42**	.39**	.56**	.67**	-		
19. Bhval4	.28**	.34**	.36**	.39**	.23**	.25**	.40**	.47**	.38**	.37**	.27**	.37**	.39**	.46**	.38**	.62**	.58**	.58**	-	
20. Bhval5	.26**	.39**	.36**	.25**	.18*	.27**	.39**	.36**	.29**	.39**	.44**	.42**	.45**	.41**	.40**	.63**	.58**	.62**	.60**	-

** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed); Metacog = metacognitive; Cog = cognitive; Motiv = motivational; Bhral = behavioral.

Appendix B

Content Validity Assessment (rated by an expert as an example)

Content Validity Assessment Sheet

Overview

The purpose of this questionnaire is to validate instruments aimed at measuring social intelligence and cultural intelligence as predictors of national identity among undergraduate students at Ethiopian public universities. Definitions of the constructs are provided for each instrument to guide you throughout the content validation.

General Task Directions

There are some demographic questions to be completed before you begin the validation task. Look at each of the items that are listed below under each subsection. On the basis of the descriptions provided, determine for each item whether the item is essential, useful but not essential, or nonessential at all.

The last two columns of the table invite you to make any additional comments or remarks, especially if you rate an item as not essential and/or nonessential and about the task in general and the items (e.g., wording, readability, ease of comprehension, understandability, etc.).

Once you have completed the entire task, SAVE the document with your information in a file name you prefer, attach it through the e-mail dawitd344@gmail.com, and send it to me, please.

Thank you very much for your cooperation and immense help with the improvement of this questionnaire!

Part 1: Demographic Information

1. Name: _____
2. Gender: _____
3. Education Level– Highest Degree Earned: _____
4. Place of Current Occupation: _____
5. Title or Position: _____
6. Discipline/Field of Study: _____
7. Number of years in the discipline: _____
8. Population focus (research area): _____
9. Have you ever been involved in instrument development before? If 'yes', how many? _____
10. (Answer at end) How long did it take to complete this task?

Part 2: Content Validity-Related Questions

Construct 1: National Identity

Definitions of the Construct and Its Dimensions/Factors

The items hereunder are intended to measure the level of Ethiopian national identity. Ethiopian national identity in this research is conceptualized as exploring Ethiopia, Ethiopians, its symbols and/or

cultures, and commitment because of membership in and identification with the social group (i.e., Ethiopian national identity) as a solidary homeland. It comprises two factors—exploration and commitment. For easy comprehension, definitions of these facets are given in their respective boxes.

How essential and useful do you think is each item in measuring the supposed construct? (To indicate the degree of relevance of an item, write 3 if the item is essential, 2 if the item is useful but not essential, and 1 if the item is nonessential in the first column). Please suggest a modified item or an additional item (for each item), if you think that the item is not essential to measure the supposed construct.

KEYNOTE (Item Relevance): 3= the item is Essential; 2= the item is Useful, but not essential; 1= the item is Nonessential

Definition of Exploration: 'Exploration' in the current research is operationally defined as the degree of curiosity and energy one pursues to acquire knowledge and information about the nation Ethiopia; including past histories of both glorious and inglorious aspects, which have been integral parts of Ethiopian national identity.

Item No.	Exploration Subscale Items	Item relevance	Suggested modification	Other items suggested
1	I have spent time trying to find out more about my Ethiopian nationality, such as its history, traditions, customs, etc. ስለ ኢትዮጵያዊ ማንነቴ፣ ታሪክ፣ ባህል፣ ልማድ ለማወቅ ጥረት አደርጋለሁ።	3		
2	I participate in organizations or social groups that include most members of my Ethiopian fellows without considering their specific ethnicity, religion, gender, etc. እንደ ብሄር፣ ሐይማኖት፣ ጾታ እና መስል ጉዳዮችን ሳልመለከት፣ ኢትዮጵያውያን ወገኖቼ በሚገኙበት ማህበራዊ ስብስቦች/አደረጃጀቶች ውስጥ ተሳትፎ አደርጋለሁ።	3		
4	I think a lot about how my life will be affected by my Ethiopian national group membership. ኢትዮጵያዊ መሆኔ በህይወቴ ላይ ያለውን ተፅዕኖ በብዛት አስበዋለሁ።	2		
8	To learn more about my Ethiopian nationality background, I have often talked to other people about it. ስለ ኢትዮጵያዊ ማንነቴ የበለጠ ለማወቅ ስል፣ ኢትዮጵያውያንን አስመልክቶ ከሌሎች ሰዎች ጋር አወራለሁ/እወያያለሁ።	3		
10	I search to know about the cultural practices and symbols of my Ethiopian nationality, such as special food, music,	(2) Double barreled	I explored seeking to know more about cultural	

	dressing, and so on. ኢትዮጵያዊ መገለጫ የሆኑ ባህላዊ ልማዶችን እና ምልክቶችን (ማለትም የተለዩ ምግብ፣ ሙዚቃ፣ አለባበስ ወ.ዘ.ተ) ጉዳዮችን ታሪካዊ አመጣጣቸውን በመፈተሽ ለማወቅ እጥራለሁ።	item	issues of my Ethiopian nationality, such as special food, music, dressing, etc. ኢትዮጵያዊነትን የሚናገሩ የባህል ጉዳዮችን (ለምሳሌ፡- ባህላዊ ምግቦችን፣ ሙዚቃዎችን፣ አለባበሶችንና የመሳሰሉትን) ለማወቅ እጥራለሁ።	
12	I have spent time trying to know more about the historical facts and cultural practices of other members of my Ethiopian nationality group. ስለ ሌሎች ኢትዮጵያዊያን ወገኖቼ ታሪካዊ ዳራዎችና ባህሎች ለማወቅ ጥረት አደርጋለሁ።	3	I have spent time trying to know the historical facts and cultural practices of other members of my Ethiopian fellows. ስለ ሌሎች ኢትዮጵያዊ ወገኖቼ ታሪካዊ ዳራዎችና ባህሎች ለማወቅ ጥረት አደርጋለሁ።	
15	I have explored seeking to know more about cultural issues of my Ethiopian nationality, such as special food, music, dressing, etc. ኢትዮጵያዊ መገለጫ የሆኑ ጉዳዮችን (ለምሳሌ፡- እንደ ብሔራዊ ሰንደቅዓላማ ዓይነት) ታሪካዊ አመጣጣቸውን በመፈተሽ ለማወቅ እጥራለሁ።	3		
13	I have spent time trying to know about the festivals of Irreecha, Fichee-Chambalaalla, Ashenda, and etc., of Ethiopia. እንደ ኢሬቻ፣ ፍቼ-ጨምባላላ፣ አሸንዳ የመሳሰሉ የኢትዮጵያ ባህላዊ ትውፊቶችን ለማወቅ ጥረት አደርጋለሁ።	3		

Definition of Commitment: the level of identification and degree of an individual's attachment to Ethiopian nationality and identification with it and the subsequent investment and/or devotion that the individual can pay.

Item No.	Commitment Subscale Items	Item relevance	Suggested modification	Other items suggested
3	I have a clear sense of my Ethiopian nationality and what its membership means for me. ስለ ኢትዮጵያዊ ማንነቴ እና ኢትዮጵያዊነት ስላለው ትርጉም ለእኔ በደንብ ግልፅ ነው።	2	I have a clear sense of my Ethiopian nationality and what it means for me. ስለ ኢትዮጵያዊ ማንነቴ ግልፅ የሆነ ትርጉም አለኝ።	
5	I am happy that I am a member of the Ethiopian national group. ኢትዮጵያዊ/ት በመሆኔ ደስተኛ ነኝ።	2	I am happy that I am an Ethiopian. ኢትዮጵያዊ/ት በመሆኔ ደስተኛ ነኝ።	
6	I have a strong sense of belonging to my Ethiopian national group. ለኢትዮጵያዊ ማንነቴ ከፍኛ ብሄራዊ ስሜት አለኝ።	3	I have a strong sense of belonging to my Ethiopian nationality.	I am not comfortable with the word ‘national group’ but fine
7	I understand pretty well what my Ethiopian nationality group membership means to me. ኢትዮጵያዊ ብሄራዊ ማንነቴ ለእኔ ምን ማለት እንደሆነ በሚገባ ተረድቻለሁ።	3	Being Ethiopian/an Ethiopian	
9	I have a lot of pride in my Ethiopian nationality <u>group</u> . በኢትዮጵያዊነቴ በጣም እኮራለሁ።	3		
11	I have a strong attachment/affiliation towards my Ethiopian nationality <u>group</u> . ጠንካራ የኢትዮጵያዊ ስሜት አለኝ።	3	I have a strong attachment to my Ethiopian nationality.	I am fine with the Amharic.
14	I feel good about my Ethiopian cultural, historical, traditional, etc backgrounds. ስለ ኢትዮጵያ ባህላዊ፣ ታሪካዊ፣ ልማዳዊ እሴቶች ጥሩ ስሜት ይሰማኛል/አለኝ።	3		

Results of the Content validity Assessment by Raters

Results of the Content Validity Assessment of the National Identity Scale by Experts

Table C2.*Results of the Content Validity Assessment of the Social Intelligence Scale by Experts*

Items	Rater 1	Rater 2	Rater 3	Rater 4	Rater 5	Rater 6	Rater 7	Rater 8	I-CVI	Remark
SIP 1	3	3	3	3	3	3	3	3	1	Retained
SIP 2	3	3	3	3	3	3	3	3	1	Retained
SIP 3	3	3	3	2	3	3	3	3	0.75	Retained
SIP 4	3	3	3	3	3	3	3	3	1	Retained
SIP 5	3	3	3	3	3	3	3	3	1	Retained
SIP 6	3	3	3	3	3	3	3	3	1	Retained
SIP 7	3	3	3	3	3	3	3	3	1	Retained
SS 1	3	3	3	3	3	3	3	3	1	Retained
SS 2	3	3	3	3	3	3	3	3	1	Retained
SS 3	3	3	3	3	3	3	3	3	1	Retained
SS 4	3	3	3	2	3	3	3	3	0.75	Retained
SS 5	3	3	3	3	3	3	3	3	1	Retained
SS 6	3	3	3	3	3	3	3	3	1	Retained
SS 7	3	3	3	3	3	3	3	3	1	Retained
SA 1	3	3	3	3	3	3	3	3	1	Retained
SA 2	3	3	3	2	3	3	3	3	0.75	Retained
SA 3	3	3	3	3	3	3	3	3	1	Retained
SA 4	3	3	3	3	3	3	3	3	1	Retained
SA 5	3	3	3	2	3	3	3	3	0.75	Retained
SA 6	3	3	3	3	3	3	3	3	1	Retained
SA 8	3	3	3	1	3	3	3	3	0.75	Retained
CVI									19.75/21 =0.94	

Appendix D

English Version of the Instruments

Addis Ababa University

College of Education and Behavioral Studies

School of Psychology

A Pilot Study Questionnaire to be Filled out by Year Three and above Public University Students

Purpose: The purpose of this questionnaire is to collect data to measure *Ethiopian national identity, social intelligence, and cultural intelligence among senior undergraduate students at Ethiopian public universities*. Since the success of the study entirely depends on your valuable response, you are kindly requested to genuinely reply to all the items and complete the questionnaire. All the information obtained from you will be treated with complete confidentiality and used only for research purposes. Your time investment will be approximately 21 minutes.

I thank you very much for your willingness and your time!

Dawit Demlie, PhD student, AAU

Cell phone: +251911812826, email: dawitd344@gmail.com

- General Directions:**
- 1) Please do not write your name on any page of the questionnaire.
 - 2) Write only a code generated by you [yourselves] but keep the guidelines given by the coordinator.
 - 3) Please answer each question by writing the mark 'X' or '✓' for your choice(s) or by writing as needed.

Code _____

Demographic profile, Your:

Gender: Male ☐ Female ☐

Age: _____

Ethnic background: _____

Religion: _____

Original area of residence: Urban ☐ Rural ☐

Family Socioeconomic Status: High ☐ Medium ☐ Low ☐

Part I: The following table contains 15 sentences about Ethiopian National Identity. Please write an 'X' or '✓' mark for your choice(s) in each statement's box on the basis of how much you agree or disagree with these statements. Use the following scale:

5 = Strongly agree

2 = Disagree

4 = Agree

1 = Strongly disagree

3 = Neutral

Item No.	National Identity Items	5	4	3	2	1
1	I have spent time trying to find out more about my Ethiopian nationality, such as its history, traditions, customs, etc.					
2	I participate in organizations or social groups that include most members of my Ethiopian fellows without considering their specific ethnicity, religion, gender, etc.					
3	I have a clear understanding of my Ethiopian nationality and what it means to me.					
4	I think a lot ho my life will be affected by my Ethiopian nationality group membership.					
5	I am happy that I am an Ethiopian.					
6	I have a strong sense of belonging to my Ethiopian nationality.					
7	I understand pretty well what my Ethiopian nationality group membership means to me.					
8	To learn more about my Ethiopian nationality background, I have often talked to other people about it.					
9	I have a lot of pride in my Ethiopian nationality.					
10	I explored seeking to know more about cultural issues of my Ethiopian nationality, such as special food, music, dressing, etc.					
11	I have spent time trying to know the historical facts and cultural practices of other members of my Ethiopian fellows.					
12	I have explored more about the historical facts of symbols of my Ethiopian nationality, such as the Ethiopian national flag.					
13	I have a strong attachment/affiliation towards my Ethiopian nationality.					
14	I feel good about my Ethiopian cultural, historical, traditional, etc., backgrounds.					
15	I have spent time trying to learn about the festivals of <i>Irreecha</i> , <i>Fichee-Chambalaalla</i> , <i>Ashenda</i> , etc., of Ethiopia.					

Part II: The following table contains 21 statements about social intelligence. Please write an 'X' or '✓' mark for your choice(s) on each statement's box on the basis of how much you agree or disagree with these statements. Use the following scale:

7 = Strongly Agree

6 = Agree

5 = Slightly Agree

4 = Neutral

3 = Disagree

2 = Slightly Disagree

1 = Strongly Disagree

Item No.	SI Items	7	6	5	4	3	2	1
1	I can predict other people's behavior.							
2	I know how my actions will make others feel.							
3	I am always mindful of my actions thinking seriously about others' reactions towards what I do.							
4	I often feel uncertain about what I am doing right around new people who I don't know.							
5	I am not very surprised with the things people from different or similar							

	backgrounds often do.								
6	I understand other people's feelings.								
7	I have no difficulties fitting easily in social situations mostly.								
8	Other people become angry with me without being able to explain to me why.								
9	I understand others' wishes.								
10	I am good at entering new situations and meeting people for the first time.								
11	People are mostly comfortable with me when I say what I think.								
12	I have no problems getting along with other people mostly.								
13	I can identify predictable and unpredictable people and treat them and/or act accordingly.								
14	I can often understand what others are trying to accomplish without the need for them to say anything.								
15	It doesn't take me a very long time to get to know others well mostly.								
16	I realize it when I offend others or make them feel bad.								
17	I can predict how others will react to my behavior.								
18	I am good at getting on good terms with new people.								
19	I can often understand what others mean through their expressions, body language, etc.								
20	I frequently have no problems finding and bringing good conversation topics.								
21	I often feel that it is not very difficult to understand others' choices.								

Part III: The following table contains 20 sentences about cultural intelligence. Please write an 'X' or '✓' mark for your choice(s) on each statement's box on the basis of how much you agree or disagree with these statements. Use the following scale:

7 = Strongly Agree

6 = Agree

5 = Slightly Agree

4 = Neutral

3 = Disagree

2 = Slightly Disagree

1 = Strongly Disagree

No.	CQ Items	7	6	5	4	3	2	1
1	I am conscious of the cultural knowledge I use when interacting with people from different cultural backgrounds.							
2	I try to adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.							
3	I know the legal and economic systems of the cultures in the Northern, Southern, Eastern, Western and Central parts of Ethiopia.							
4	I am conscious of the cultural knowledge I apply to cross-cultural interactions.							
5	I know some vocabulary (e.g., greeting words) and rules of communication of languages in Ethiopia such as <i>Guragigna</i> , <i>Afan Oromo</i> , <i>Tigregna</i> , etc.							
6	I know the cultural values, norms and religious beliefs of the <i>Afar</i> , <i>Somali</i> , <i>Siltie</i> , etc.							
7	I check the accuracy of my cultural knowledge as I interact with people from different							

	cultures.								
8	I know the favorite food and the feeding rules associated with the Amhara, Somali, <i>Hadya</i> , <i>Tigray</i> , <i>Guragie</i> , etc., cultures of Ethiopia.								
9	I know the arts, crafts, music and specific holidays of the <i>Wolayta</i> , <i>Harari</i> , <i>Gamo</i> , etc., cultures in Ethiopia.								
10	I know the rules of dressing, hairstyle, and related cultural practices of the <i>Hammer</i> , <i>Kambata</i> , <i>Afar</i> , etc., cultures in Ethiopia.								
11	I enjoy interacting with people from different cultures.								
12	I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.								
13	I use facial expressions and vocals differently to suit different cross-cultural situations.								
14	I am confident that I can socialize with the locals in a culture that is unfamiliar to me.								
15	I vary the rate of my speaking (e.g., pause & silence) when a cross-cultural situation requires it.								
16	I am curious to learn more and know better about other cultures that are new to me.								
17	I change my nonverbal behavior when a cross-cultural situation requires it.								
18	I alter my facial expressions when a cross-cultural interaction requires it.								
19	I enjoy living in cultures that are unfamiliar to me and can deal with the stress of adjusting myself to them.								
20	I am confident that I can get accustomed to the living systems (e.g., shopping conditions) of other cultures in Ethiopia.								

Part IV: The following table contains 10 sentences. Please write an ‘X’ or ‘✓’ mark for your choice(s) on each sentence, whether it is true or false about you.

No.	Social Desirable Responses (SDR) Items	True	False
1	I never hesitate to go out of my way to help someone in trouble.		
2	It is sometimes hard for me to go on with my work if I am not encouraged.		
3	I have never intensely disliked anyone.		
4	I am always careful about my manner of dress.		
5	No matter who I’m talking to, I’m always a good listener.		
6	I can remember “playing sick” to get out of something.		
7	I don’t find it particularly difficult to get along with loud-mouthed, obnoxious people.		
8	I am always courteous, even to disagree.		
9	I never resent being asked to return a favor.		
10	There have been times when I was quite jealous of the good fortune of others.		

Finished!

Thank you so much once again!

Appendix E

Amharic Version of the Instruments

በአዲስ አበባ ዩኒቨርሲቲ

የትምሕርት እና ሥነ-ባሕሪ ጥናት ኮሌጅ

የሳይኮሎጂ ትምሕርት ቤት

ለናሙና ጥናት የተዘጋጀ፤ ሦስተኛ ዓመትና በላይ በሆኑ የመንግስት ዩኒቨርሲቲ የቅድመ ምረቃ ተማሪዎች የሚሞላ መጠይቅ

ዓላማ:- ይህ መጠይቅ ስለ ኢትዮጵያዊ ማንነት፣ ስለ የማህበረ ዕውቀት ልቀት እና ስለ የባህል ዕውቀት ልቀት ጥናት ለማድረግ ታስቦ የተዘጋጀ መጠይቅ ነው። ውድ ተሳታፊ የጥናቱ ውጤታማነት እርስዎ በሚሰጡት መልስ የሚወሰን ስለሚሆን፣ ለሁሉም ጥያቄዎች በፍፁም ታማኝነት መልስ እንዲሰጡ በአክብሮት እጠይቃለሁ። በዚህ መጠይቅ ላይ ከእርስዎ የተገኘው መረጃ በምስጢር የሚያዝና ከጥናቱ ዓላማ ዉጭ በምንም ዓይነት መንገድ ለሌላ አገልግሎት የማይወል መሆኑን በድጋሜ አረጋግጣለሁ። መጠይቁን ሞልቶ ለመጨረስ የሚያስፈልገው ጊዜ 21 ደቂቃ ገደማ ይሆናል። አመሠግናለሁ!

ዳዊት ደምሌ፣ የፒ.ኤች.ዲ ተማሪ፣ አዲስ አበባ ዩኒቨርሲቲ

ስልክ ቁጥር:- +251911812826፣ ኢሜይል:- dawitd344@gmail.com

አጠቃላይ መመሪያዎች:- (1) በመጠይቁ ላይ ስም መፃፍ አይቻልም። (2) "መለያ ቁጥር" በሚል ወጭ ክፍት ቦታ ላይ፣ በአስተባባሪው በሚነገረው መነሻ መሰረት የሚፈልጉትን ቁጥር ይስጡ። (3) በተሰጠው ክፍት ቦታ ላይ የ 'X' ወይም የ '✓' ምልክት በማድረግ በጥያቄው መሰረት መልስዎን ያስቀምጡ።

መለያ ቁጥር:- _____

የእርስዎ የግል መረጃ:-

ሀ. ጾታ:- ወንድ ☐ ሴት ☐ ለ. እድሜ:- _____

ሐ. ብሔር:- _____ መ. ሐይማኖት:- _____

ሠ. በቋሚነት የመጡበት/የሚኖሩበት አካባቢ:- ከተማ ነው ☐ ገጠር ነው ☐

ረ. የቤተሰብ የምጣኔ ሀብት ደረጃ:- ከፍተኛ ☐ መካከለኛ ☐ ዝቅተኛ ☐

ክፍል አንድ:- ከዚህ በታች የተዘረዘሩት 15 ዓረፍተነገሮች ኢትዮጵያዊ ማንነትን የተመለከቱ ናቸው። በእያንዳንዱ ዓረፍተነገር ምን ያሽል እንደሚስማሙ ወይም እንደማይስማሙ ከ 1 እስከ 5 ውጤት

በመስጠት፣ ከፊትለፊት ባለው ክፍት ቦታ/ሳጥን ውስጥ የ 'X' ወይም የ '✓' ምልክት በማድረግ፣ የስምምነትዎን ወይም ያለመስማማትዎን መጠን ይግለጹ። እባክዎን የሚከተለውን መግለጫ ይጠቀሙ፤

5 = በጣም እስማማለሁ

4 = እስማማለሁ

3 = መወሰን አልቻልኩም

2 = አልስማማም

1 = በፍጹም አልስማማም

ተ.ቁ	ኢትዮጵያዊ ማንነትን የተመለከቱ ዓረፍተነገሮች	5	4	3	2	1
1	ስለ ኢትዮጵያዊ ማንነቴ ታሪክ፣ ባህል፣ ልማድ ለማወቅ ጥረት አደርጋለሁ።					
2	እንደ ብሄር፣ ሐይማኖት፣ ጾታ እና መሰል ጉዳዮችን ሳልመለከት፣ ኢትዮጵያውያን ወገኖቼ በሚገኙበት ማህበራዊ ስብስቦች/አደረጃጀቶች ውስጥ ተሳትፎ አደርጋለሁ።					
3	ስለ ኢትዮጵያዊ ማንነቴ ግልፅ የሆነ ትርጉም አለኝ።					
4	ኢትዮጵያዊ በመሆኔ በህይወቴ ላይ ያለውን ተፅዕኖ አብዛኛውን ጊዜ አስበዋለሁ።					
5	ኢትዮጵያዊ/ት በመሆኔ ደስተኛ ነኝ።					
6	ለኢትዮጵያዊ ማንነቴ ከፍኛ ብሄራዊ ስሜት አለኝ።					
7	በኢትዮጵያዊነት የብሄራዊ ማንነት ማዕቀፍ ውስጥ መገኘት ማለት ምን ማለት እንደሆነ በሚገባ እረዳለሁ።					
8	ስለ ኢትዮጵያዊ ማንነቴ የበለጠ ለማወቅ ስል፣ ኢትዮጵያዊነትን አስመልክቶ ከሌሎች ሰዎች ጋር አወራለሁ/እወያያለሁ።					
9	በኢትዮጵያዊነቴ በጣም እኮራለሁ።					
10	ኢትዮጵያዊነትን የሚናገሩ የባህል ጉዳዮችን (ለምሳሌ፡- ባህላዊ ምግቦችን፣ ሙዚቃዎችን፣ አለባበሶችንና የመሳሰሉትን) ለማወቅ እጥራለሁ።					
11	ስለ ሌሎች ኢትዮጵያዊ ወገኖቼ ታሪካዊ ዳራዎችና ባህሎች ለማወቅ ጥረት አደርጋለሁ።					
12	ኢትዮጵያዊ መገለጫ የሆኑ ጉዳዮችን (ለምሳሌ፡- እንደ ብሄራዊ ሰንደቅ-ዓላማ ዓይነት) ታሪካዊ አመጣጣቸውን በመፈተሽ ለማወቅ እጥራለሁ።					
13	ጠንካራ የኢትዮጵያዊ ስሜት አለኝ።					
14	ስለ ኢትዮጵያ ባህላዊ፣ ታሪካዊ፣ ልማዳዊ እሴቶች ጥሩ ስሜት ይሰማኛል/አለኝ።					
15	እንደ ኢሬቻ፣ ፍቼ ጨምባላ፣ አሸንዳ የመሳሰሉ የኢትዮጵያ ባህላዊ ትውፊቶችን ለማወቅ ጥረት አደርጋለሁ።					

ክፍል ሁለት፡- ከዚህ በታች የተዘረዘሩት 21 ዓረፍተነገሮች የማህበረ ዕውቀት ልቀትን የተመለከቱ ናቸው። በእያንዳንዱ ዓረፍተነገር ምን ያሽል እንደሚስማሙ ወይም እንደማይስማሙ ከ 1 እስከ 7 ባለው ደረጃ ውስጥ ውጤት በመስጠት፣ ከፊትለፊት ባለው ክፍት ቦታ/ሳጥን ውስጥ የ 'X' ወይም የ '✓' ምልክት በማድረግ፣ የስምምነትዎን ወይም ያለመስማማትዎን መጠን ይግለጹ። እባክዎን የሚከተለውን መግለጫ ይጠቀሙ፤

7 = በጣም እስማማለሁ ፤ 6 = እስማማለሁ ፤ 5 = በመጠኑ እስማማለሁ ፤ 4 = መወሰን አልቻልኩም ፤ 3 = አልስማማኝም ፤ 2 = በመጠኑ አልስማማኝም ፤ 1 = በፍፁም አልስማማኝም

ተ.ቁ	የማህበረ ዕውቀት ልቀትን የተመለከቱ ዓረፍተነገሮች	7	6	5	4	3	2	1
1	የሌሎች ሰዎችን ባህሪ መገመት እችላለሁ።							
2	የእኔ ድርጊቶች ለሌሎች የሚሰጧቸውን ስሜት አወቃለሁ።							
3	የሌሎችን ግብረ-መልስ በማሰብ ሁለጊዜ ለማድረግዎቼ ነገር ከፍተኛ ትኩረት እሰጣለሁ።							
4	ከማለወቃቸው ሰዎች ጋር ስሆን አብዛኛውን ጊዜ በማድረጋቸው ነገሮች ተገቢነት ላይ የማመንታት/የመጠራጠር ስሜት ይሰማኛል።							
5	አብዛኛውን ጊዜ ሰዎች (ተመሳሳይም ይሁን የተለያዩ የጀርባ ታሪክ ያላቸው) በሚያደርጓቸው ነገሮች፣ እምብዛም አልደነቅም/አልገረምም።							
6	የሌሎች ሰዎችን ስሜት እረዳለሁ።							
7	በማህበራዊ ጉዳዮች ውስጥ ስገኝ በቀላሉ ሁኔታዬ የሚጠይቀውን መሆን አብዛኛውን ጊዜ አይቸግረኝም።							
8	ለምን እንደሆነ ምክንያቱን ሳያብራሩልኝ ሰዎች ይናደዱብኛል።							
9	የሌሎችን ምቹት/ፍላጎት እረዳለሁ።							
10	ለመጀመሪያ ጊዜ አዲስ ሰው ማግኘት እና አዳዲስ ሁኔታዎች ውስጥ ለመግባት ጎበዝ ነኝ።							
11	ሀሳቤን ስናገር/ሳቀርብ በሰዎች ዘንድ አብዛኛውን ጊዜ መከፋትን አላይም።							
12	ከሌሎች ሰዎች ጋር አንድ ላይ መሆን በብዛት አይቸግረኝም።							
13	ተገማች እና የማይገመቱ ሰዎችን መለየትና እንደ ባህሪያቸው ማስተናገድ እችላለሁ።							
14	ከሰዎቹ ማብራሪያ ሳያስፈልገኝ፣ ሰዎች ምን ለማሳካት እንደሚጥሩ አብዛኛውን ጊዜ መረዳት እችላለሁ።							
15	ሰዎችን በደንብ ለማወቅ በጣም ረዥም የሚባል ጊዜ አይወስድብኝም።							
16	ሌሎች ሰዎችን ሳስቀይም ወይም ሳሳዝን ይታወቀኛል/እንነዘባለሁ።							
17	ለእኔ ባህሪ/ድርጊት ሰዎች እንዴት ግብረ-መልስ ሊሰጡኝ እንደሚችሉ አስቀድሜ መገመት እችላለሁ።							
18	ከአዳዲስ ሰዎች ጋር በመግባባት ረገድ ጎበዝ ነኝ።							
19	አብዛኛውን ጊዜ ሌሎች ሰዎች ምን ለማለት እንደፈለጉ (አካላዊ ቋንቋንም ጨምሮ) መረዳት እችላለሁ።							
20	ለወይይት የሚሆኑ ጥሩ አርዕስት በመምረጥ እና በማምጣት ረገድ በአብዛኛው ችግር የለብኝም።							
21	አብዛኛውን ጊዜ የሰዎችን ምርጫ መረዳት በጣም አስቸጋሪ እንዳልሆነ ይሰማኛል።							

ክፍል ሦስት፡- ከዚህ በታች የተዘረዘሩት 20 ዓረፍተነገሮች የባህል ዕውቀት ልቀትን የተመለከቱ ናቸው። በእያንዳንዱ ዓረፍተነገር ምን ያሽል እንደሚስማሙ ወይም እንደማይስማሙ ከ 1 እስከ 7 ባለው ደረጃ ውስጥ ውጤት በመስጠት፣ ከፊትለፊት ባለው ክፍት ቦታ/ሳጥን ውስጥ የ 'X' ወይም የ '✓' ምልክት በማድረግ፣ የስምምነትዎን ወይም ያለመስማማትዎን መጠን ይግለጹ። እባክዎን የሚከተለውን መግለጫ ይጠቀሙ፤

7 = በጣም እስማማለሁ ፤ 6 = እስማማለሁ ፤ 5 = በመጠኑ እስማማለሁ ፤ 4 = መወሰን አልቻልኩም ፤ 3 = አልስማማኝም ፤ 2 = በመጠኑ አልስማማኝም ፤ 1 = በፍፁም አልስማማኝም

ተ.ቁ	የባህል ዕውቀት ልቀትን የተመለከቱ ዓረፍተነገሮች	7	6	5	4	3	2	1
1	ከሌላ ባህል ከመጣ ሰው ጋር መስተጋብር ስፈጥር፣ ያለኝን የባህል ዕውቀት ተገንዝቤ እና ንቁ ሆኜ ነው።							
2	እኔ ካለመድኩት ባህል የመጡ ሰዎች ጋር ስገናኝ፣ ያለኝን የባህል ዕውቀት ከሁኔታው ጋር አስተካክቤ ለመግባባት እጥራለሁ።							
3	በኢትዮጵያ ውስጥ ያሉ የሰሜን፣ የደቡብ፣ የምስራቅ እና የምዕራብ ባህሎችን ህጋዊና ምጣኔ ሀብታዊ ሥርዓት አውቃለሁ።							
4	የተለያዩ ባህላዊ ዳራ ካላቸው ሰዎች ጋር በማድረግው መሥተጋብር፣ የምጠቀመውን የባህል ዕውቀት ለይቶ አውቄ ነው።							
5	እንደ ጉራጊኛ፣ አሮምኛ፣ ትግረኛ ወ.ዘ.ተ ቋንቋዎችን አንዳንድ ቃላት (ለምሳሌ፡- የሠላምታ ቃላት) እና የተግባቦት ህግጋት አውቃለሁ/ እገነዘባለሁ።							
6	የአፋር፣ የሶማሌ፣ የስልጤ፣ ወ.ዘ.ተ ባህላዊ እሴቶችን፣ ልማዶችን፣ ወጎችን እንዲሁም ዕምነቶችን አውቃለሁ።							
7	ከሌላ ባህል ከሆኑ ሰዎች ጋር በማድረግው መስተጋብር፣ የባህል ዕውቀቴን ተገቢነት አረጋግጬ ነው።							
8	በኢትዮጵያ ውስጥ ባሉ እንደ አማራ፣ ትግራይ፣ ሶማሌ፣ ሀድያ፣ ጉራጌ፣ ወ.ዘ.ተ ባህሎች ውስጥ ያሉ ተወዳጅ ምግቦችንና የአመጋገብ ሥርዓታቸውን አውቃለሁ።							
9	እንደ ወላይታ፣ ሐረሪ፣ ጋሞ፣ ወ.ዘ.ተ ባህል ውስጥ የሚገኙ፣ የሥነ-ጥበብ፣ የዕድ ጥበብና የሙዚቃ ትውፊቶችን እንዲሁም በዓላትን አውቃለሁ።							
10	የሐመር፣ ከምባታ፣ አፋር፣ ወ.ዘ.ተ ባህሎችን የአለባበስ፣ የጸጉር አቆራረጥ/አሰራር እና መሰል ጉዳዮችን አውቃለሁ።							
11	ሌላ ባህል ካላቸው ሰዎች ጋር መቀራረብ እና መነጋገር ያስደስተኛል።							
12	ከሌላ ባህል ከሆኑ ሰዎች ጋር ሳወራ፣ የንግግር ተግባቦት ባህሪን (ለምሳሌ፡- ዘዬና ድምፀቴን) አስፈላጊ ሆኖ ከተገኘ ለመግባባት ስል እቀያይራለሁ።							
13	ከሌላ ባህል ሰዎች ጋር ሳወራ፣ አውዱ እንደሚፈልገው ከሁኔታው ጋር ተስማሚ ለመሆን የፊት ገፅታ ቋንቋ እና የተለያዩ የድምፅ አወጣጥ ዘዴን በንግግር ወቅት እጠቀማለሁ።							
14	ለእኔ አዲስ በሆነ ባህል ውስጥ፣ ከአካባቢው ሰዎች ጋር መላመድና መግባባት እንደምችል እርግጠኛ ነኝ።							

15	ከሌላ ባህል ከሆኑ ጋር በማወራበት ወቅት፤ እንደ አውዱ አስፈላጊነት የንግግር ፍጥነቱን በመቆጣጠር (ለምሳሌ፡- ዝምታና አረፍ ማለትን በመጠቀም) አወራለሁ።							
16	ስለ ሌሎች ባህሎች የበለጠ ለመማር እና የተሻለ ለማወቅ ጉጉት አለኝ።							
17	ከሌላ ባህል ሰዎች ጋር ባለኝ ግንኙነት፤ እንደ አውዱ አስፈላጊነት በምልክትና በሰውነት እንቅስቃሴ ላይ የተመሰረተ የመግባቢያ መንገዴን ለመግባባት ስል እቀያይረዋለሁ።							
18	ከሌላ ባህል ሰዎች ጋር ባለኝ ግንኙነት፤ በፊት ገፅታ እንቅስቃሴ የሚደረግ የመግባባት ስልቴን እንደየ አውዱ አስፈላጊነት እለዋውጠዋለሁ።							
19	እንግዳ በሆኑብኝ ባህሎች ውስጥ መኖር ያስደስተኛል፤ ከመላመድ ጋር ተያይዞ የሚኖረዉን አሉታዊ ጫናም መቋቋም እችላለሁ።							
20	ኢትዮጵያ ውስጥ ባሉ ሌሎች ባህሎች የአኗኗር ሥርዓት (ለምሳሌ፡- የግብይት ሁኔታ) ጋር ራሴን በማላመድና በማዋሃድ መኖር እንደምችል እርግጠኛ ነኝ።							

ክፍል አራት፡- ከዚህ በታች የተዘረዘሩት 10 ዓረፍተነገሮች ተሰጥተዋል። እውነት ወይም ሀሰት በማለት መልስ ለመስጠት የ 'X' ወይም የ '✓' ምልክት ከፊትለፊት ባለው ክፍት ቦታ/ሳጥን ውስጥ ያስቀምጡ።

ተ.ቁ	ዓረፍተነገሮች	እውነት	ሀሰት
1	ችግር ላይ ያለን ሰው ለመርዳት ስል ማንኛውንም መስዋዕትነት ለመክፈል አላመነታም።		
2	የብርታት ሥሜት ካልተሰማኝ በስተቀር አንዳንድ ጊዜ ወደ ክፍል አልገባም ወይም አላነብም።		
3	በህይወቴ ማንንም ሰው በፍፁም አምርሬ ጠልቼ አላዉቅም።		
4	የአለባበሴን ተገቢነት በተመለከተ ሁልጊዜ እጠነቀቃለሁ።		
5	ከማንም ጋር ቢሆን፤ ወሬ ላይ ጥሩ አድማጭ ነኝ።		
6	ከሆነ ነገር ለማምለጥ ስል “አሞኛል” ብዬ አውቃለሁ።		
7	ከሚጮሁ እና አስቀያሚ ቃላትን ከሚጠቀሙ ሰዎች ጋር መሆን/መዋል ብዙም አይከብደኝም።		
8	ለአስቸጋሪ ሰዎችም ጭምር ሁልጊዜ ትሁት ነኝ።		
9	ለተደረገልኝ መልካም ነገር/ውለታ፤ ምላሽ ብጠየቅ በፍፁም አይከፋኝም።		
10	ጥሩ ነገር በገጠማቸው ሰዎች የቀናሁበት ጊዜ አለ።		

አመሠግናለሁ!!

Appendix F

Sample Letter of Cooperation for Main Study Data Collection

አዲስ አበባ ዩኒቨርሲቲ
የሳይኮሎጂ ት/ቤት



ADDIS ABABA UNIVERSITY
School of Psychology

February 17, 2023

Ref.No *Psy/372/2023/15*

To: Adama Science and Technology University
Adama

Subject: Soliciting Your Cooperation

Dear Sir/Madam;

This is to bring to your attention that Dawit Demillie Messay ID. No. GSR//7231/10. has been enrolled in the doctoral program of Applied Social Psychology since 2017/18 academic year.

Dawit has attended and completed all the requisite courses of the Program, has successfully defended his proposal upgrading, and is currently on the final phase of his dissertation titled *"Social Intelligence and Cultural Intelligence as Predictors of National Identity among Public University Students of Ethiopia"*.

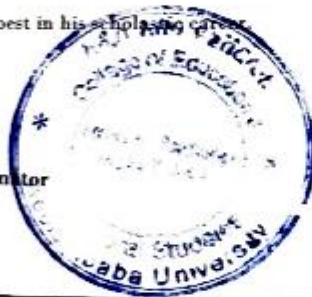
We would, therefore, like to appreciate the cooperation of your Office in availing the facilitative conditions the candidate would need to collect the pertinent data and subsequently meet the qualification requirements of a PhD degree in Applied Social Psychology.

We wish Dawit all the best in his scholarly career.

Regards,

Teka Zewdie
Teka Zewdie, (PhD)

PhD Programs Coordinator
School of Psychology



Fax 251-111225949 ☒ A.A.U 1176

Appendix G

Sample Letter of Cooperation for Pilot Study Data Collection

አዲስ አበባ ዩኒቨርሲቲ
የሳይክሎሎጂ ት/ቤት



ADDIS ABABA UNIVERSITY
School of Psychology

March 25, 2022.
Ref. No. *Psyc/014/2014*

To: The Office of the President
Wollo University
Dessie

Subject: Request for Cooperation

Dear Madam/Sir;

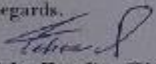
This is to bring to your attention that Dawit Demie, ID. No. GSR/7231/10 has been enrolled in the doctoral program of Applied Social Psychology since 2017/2018 academic year.

Dawit has successfully defended his dissertation proposal on January 4, 2022 before a panel of examiners. The proposal was titled "Social Intelligence and Cultural Intelligence as Predictors of National Identity among Public University Students of Ethiopia".

Dawit is currently working on the upgrading phase of his dissertation but needs the unreserved support of your Institution.

We would, therefore, like to request the cooperation of your Office to avail the needed information that Dawit would need in his efforts to meet the qualification requirements leading to a terminal degree in Applied Social Psychology.

We wish Dawit all the best in his scholastic career.

Regards,

Teka Zewdie, (PhD)
PhD Programs Coordinator
School of Psychology



☎ 251-111225949 Fax 251-111225949 ✉ A.A.U 1176
Email: psyc.AAU@telecom.net

Appendix H

Consent form of the English Version

Consent Form

I, the undersigned, agree to participate in the research project titled "Social Intelligence and Cultural Intelligence as Predictors of National Identity among Undergraduate Public University Students of Ethiopia", conducted by Dawit Demlie, who has discussed the research project and the copy of the permit letter with me. I have had the opportunity to ask questions about this research and received satisfactory answers. I understand the general purposes and methods of this research. I consent to participate in the research project and the following has been explained to me:

- the research may not be of direct benefit to me
- my participation is completely voluntary
- my right to withdraw from the study at any time without any implications to me
- the challenges including any possible inconvenience or discomfort as a consequence of my participation in the research project
- the steps that have been taken to minimize any possible insecurity and what I am expected and required to do
- whom I should contact for any complaints about the research or the conduct of the research
- security and confidentiality of my personal information.

In addition, I consent to the publication of the results from this study, provided that my identity is not revealed.

Signature: _____

Date: _____

Appendix I

Consent form of the Amharic Version

የተሳታፊነት ስምምነት

አኔ ከታች ፊርማዬ የተቀመጠው ግለሰብ፡ “የማኅበረ ዕውቀት ልቀት እና የባህል ዕውቀት ልቀት ለማንነት ትንበያ፣ በኢትዮጵያ የመንግሥት የዩኒቨርሲቲ የቅድመ ምረቃ ተማሪዎች” በሚል ርዕስ ለሚደረገው ጥናት ተሳታፊ ለመሆን ተስማምቻለሁ። በጥናት አድራጊው ዳዊት ደምሌ ጥናቱን በመተመለከት ገለጻ ተደርጎልኛል። ጥናቱን እንዲያደርጉ የተፈቀደላቸውን የደብዳቤ ኮፒዎች አይቻለሁ። ጥያቄ የመጠየቅ ዕድል ተሰጥቶኝም ተገቢውን ማብራሪያ አግኝቻለሁ። አጠቃላይ የጥናቱን ዓላማ እና ሥነ ዘዴም ተረድቻለሁ። ሥለሆነም በሚከተሉት ጉዳዮች ላይ ገለጻ ተደርጎልኝ፤ በጥናቱ ላይ ለመሳተፍ ተስማምቻለሁ፤

- የጥናቱ ቀጥተኛ ተጠቃሚ ላልሆን እችላለሁ፤
- ተሳትፎዬ ሙሉ በሙሉ በፈቃደኝነት ነው፤
- በማንኛውም ወጣት ከጥናቱ ለመውጣት ሙሉ መብት ይኖረኛል፤
- የጥናቱ ተሳታፊ በመሆኔ ሊያጋጥሙኝ የሚችሉ “የምናልባት” ግምታዊ ተግዳሮቶችን አውቂያለሁ፤
- ከደህንነት አንጻር ሊከናወኑ የሚገቡ ቅደም ተከተሎችን እንዳውቅና በእኔ በኩል የሚጠበቀውም ተነግሮኛል፤
- ጥናቱን እና የጥናት አካሄዱን በተመለከተ ቅሬታ ካለኝ ለየትኛው አካል ማድረስ እንደምችል ተነግሮኛል፤
- ከእኔ የሚወሰዱ መረጃዎች በጥንቃቄ እና በሚስጥር እንደሚያዙ ተረጋግጦልኛል።

በተጨማሪም ማንነቴ ሳይገለጽ የዚህ ጥናት ውጤት እንዲታተም ተስማምቻለሁ።

ፊርማ፡- _____

ቀን፡- _____

Appendix J

Research Ethical Approval Form



Addis Ababa University
College of Education and Behavioral Studies
School of Psychology

RESEARCH ETHICAL APPROVAL APPLICATION FORM *SOP-Eth/005/23*

Tick one box: ☐ Staff project ☒ Graduate project ☐ Undergraduate Project

Title of Project: The Relationship between Emotional Intelligence and Turnover Intention: Social Intelligence and Cultural Intelligence as Predictors of National Identity Among Public University Students of Ethiopia

Name of researcher(s): Dawit Demlie Messay

Name of supervisor (for student research): Dr. Tamine Andualem Date: December 30, 2022

Please answer the following questions by selecting from these choices and ticking:		YES	NO	Not Applicable
1	Will you describe the main research procedures to participants in advance, so that they are informed about what to expect?	X		
2	Will you tell participants that their participation is voluntary?	X		
3	Will you obtain written consent for participation?	X		
4	If the research is observational, will you ask participants for their consent to being observed?		X	
5	Will you tell participants that they may withdraw from the research at any time and for any reason?	X		
6	With questionnaires, will you give participants the option of omitting questions they do not want to answer?	X		
7	Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?	X		
8	Will you debrief participants at the end of their participation (i.e. give them a brief explanation of the study)?	X		

If you have ticked 'No' to any of questions 1 – 8, please give an explanation on a separate sheet of paper.

Please answer the following questions by selecting from these choices and ticking:		YES	NO	Not Applicable
9	Will your project involve deliberately misleading participants in any way?		X	
10	Is there any realistic risk of any participants experiencing either physical		X	

Appendix K
Boxplots for Outliers Assessment

Figure K1.
Boxplot Depicting Outliers of the National Identity Measure

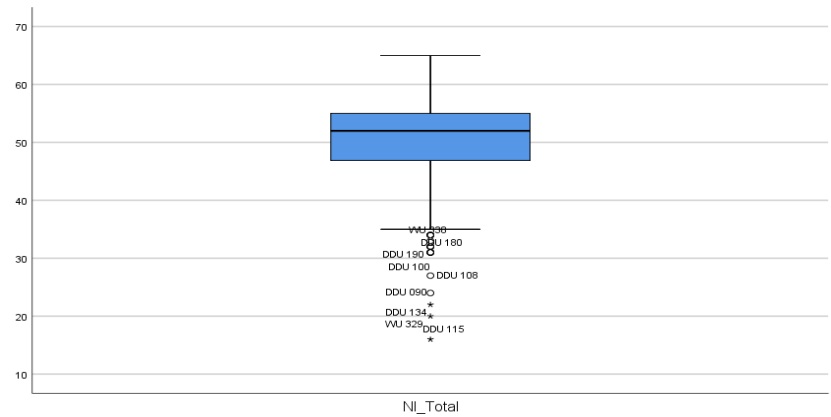


Figure K2.
Boxplot Depicting Outliers of the Social Intelligence Measure

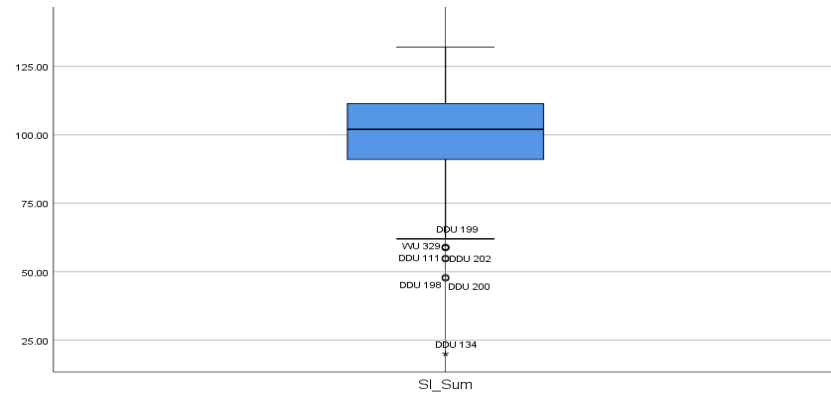
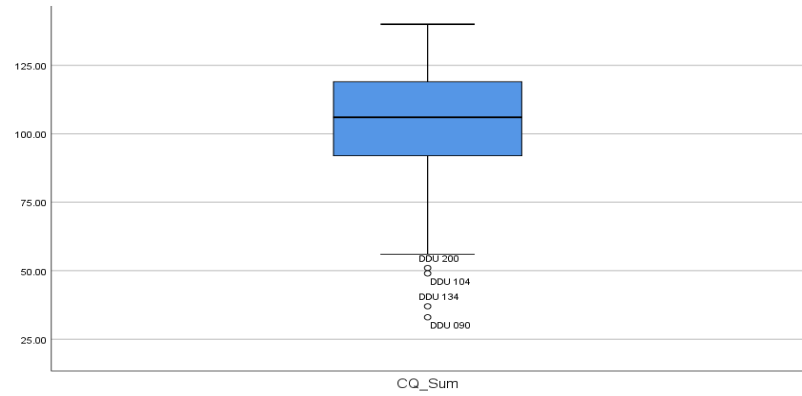


Figure K3.
Boxplot Depicting Outliers of the Cultural Intelligence Scale



Appendix L

P-P Plots for Outliers Assessment

Figure L1.

P-P Plot of Social Intelligence Scores

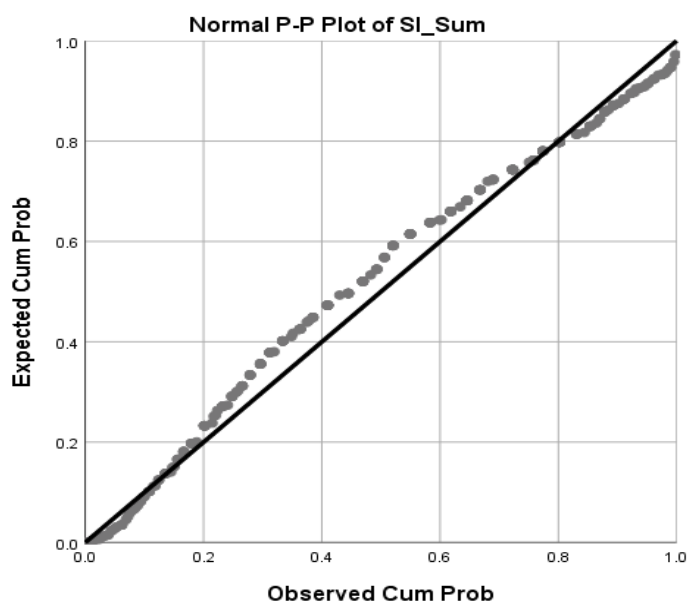
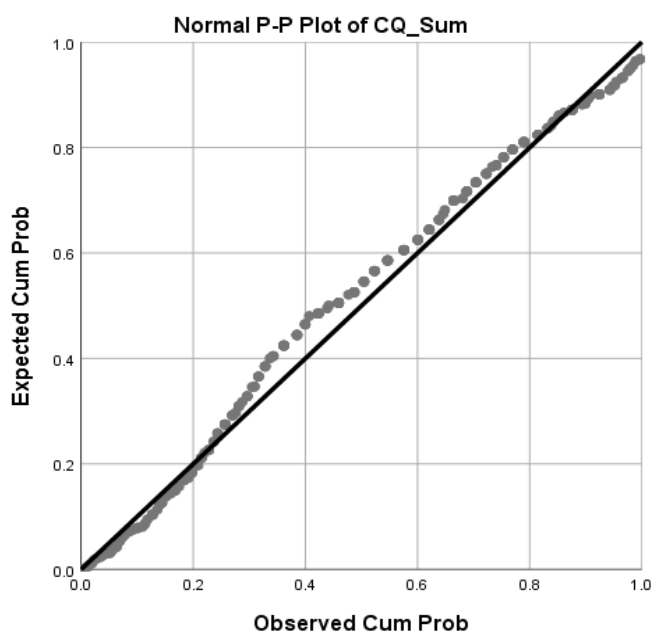


Figure L2.

P-P Plot of Cultural Intelligence Scores



Appendix M

KMO and Bartlett's Test of National Identity, Social, and Cultural Intelligence Measures

		NI		SI		CQ
		<i>With poor items</i>	<i>Without poor items</i>	<i>With poor items</i>	<i>Without poor items</i>	
Kaiser–Meyer–Olkin Measure of Sampling Adequacy.		.921	.925	.868	.869	.894
Bartlett's Test of Sphericity	Approx. Chi-Square	1881.233	1867.753	2311.103	2272.997	1971.434
	df	105	78	210	171	190
	Sig.	.000	.00	.00	.000	.000

Appendix N

Total Variance Explained and Scree Plots from the Explanatory Factor Analyses

Table N1.

Total Variance Explained for the National Identity Measure

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings*
				Loadings			Squared Loadings*
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	7.634	58.724	58.724	7.346	56.504	56.504	6.416
2	2.187	16.824	75.548	1.914	14.720	71.224	5.886
3	.522	4.012	79.559				
4	.473	3.640	83.200				
5	.419	3.222	86.421				
6	.346	2.661	89.083				
7	.291	2.237	91.320				
8	.255	1.964	93.283				
9	.237	1.822	95.106				
10	.197	1.516	96.622				
11	.176	1.351	97.973				
12	.146	1.126	99.099				
13	.117	.901	100.000				

Note. Extraction Method: Maximum Likelihood; *When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Figure N1.

Scree Plot Depicting Factors of the National Identity Measure on the basis of Eigenvalues

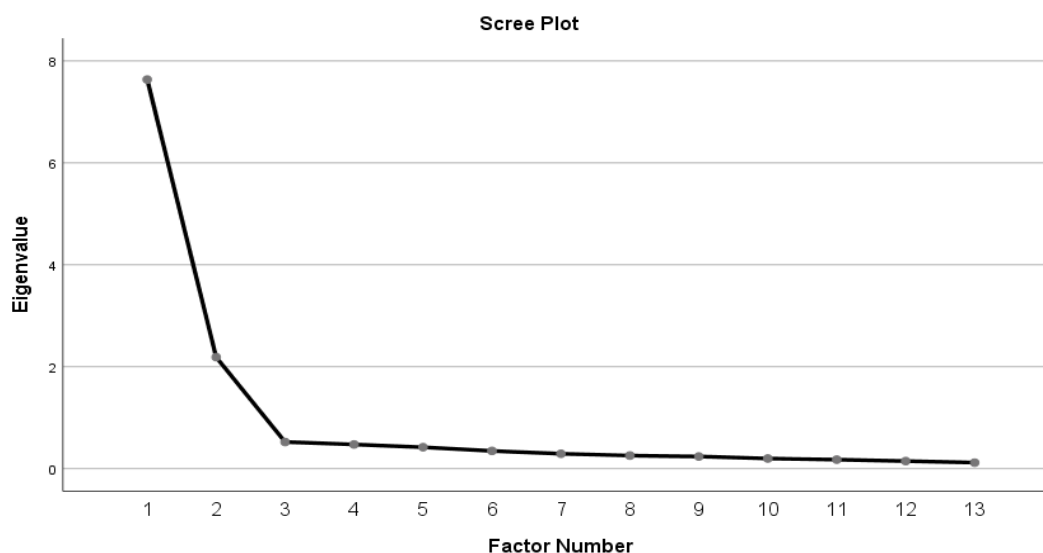


Table N2.*Total Variance Explained for the Social Intelligence Measure*

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		Cumulative %	Rotation Sums of Squared Loadings*
	Total	% of Variance	Cumulative %	Total	% of Variance		Total
1	6.888	36.252	36.252	6.472	34.062	34.062	5.484
2	3.922	20.643	56.895	3.658	19.254	53.316	4.790
3	2.685	14.130	71.025	2.321	12.215	65.531	4.284
4	.636	3.349	74.374				
5	.593	3.121	77.495				
6	.536	2.819	80.314				
7	.481	2.530	82.844				
8	.460	2.423	85.268				
9	.416	2.188	87.456				
10	.359	1.890	89.346				
11	.327	1.724	91.070				
12	.310	1.634	92.703				
13	.283	1.489	94.192				
14	.258	1.355	95.548				
15	.214	1.128	96.676				
16	.204	1.071	97.747				
17	.173	.913	98.660				
18	.154	.808	99.469				
19	.101	.531	100.000				

Note. Extraction Method: Maximum Likelihood. *When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

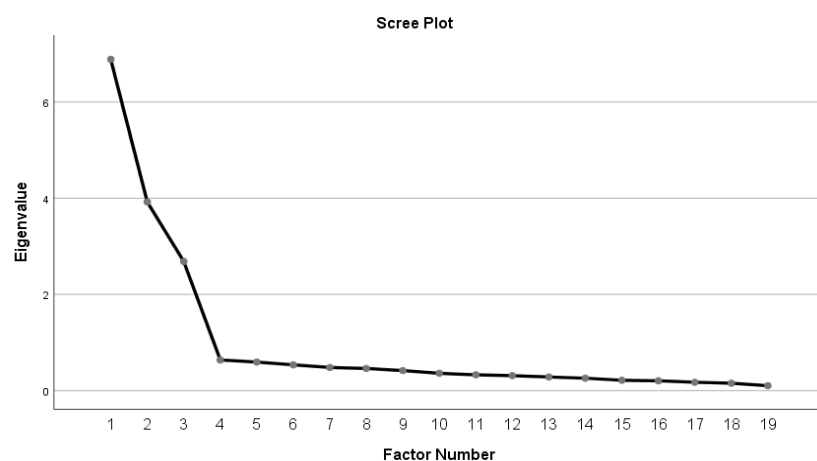
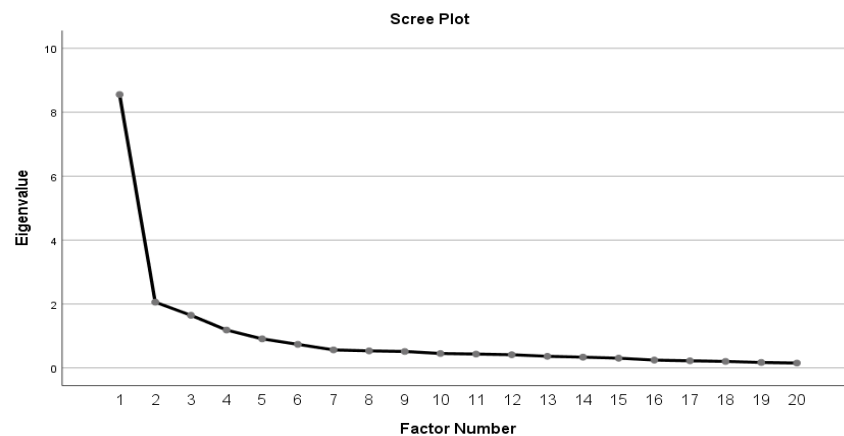
Figure N2.*Scree Plot Depicting Factors of the Social Intelligence Measure Based on Eigenvalues*

Table N3.*Total Variance Explained for the Cultural Intelligence Measure*

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings*
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	8.555	42.774	42.774	8.131	40.655	40.655	5.742
2	2.058	10.292	53.066	1.665	8.327	48.983	5.907
3	1.646	8.232	61.298	1.246	6.231	55.214	6.198
4	1.185	5.923	67.221	.792	3.958	59.172	5.176
5	.909	4.545	71.766				
6	.737	3.683	75.449				
7	.564	2.821	78.270				
8	.534	2.668	80.938				
9	.514	2.568	83.506				
10	.451	2.254	85.760				
11	.434	2.171	87.931				
12	.412	2.062	89.992				
13	.364	1.819	91.812				
14	.337	1.685	93.497				
15	.306	1.528	95.025				
16	.245	1.226	96.251				
17	.223	1.115	97.367				
18	.203	1.014	98.380				
19	.171	.857	99.237				
20	.153	.763	100.000				

Note. Extraction Method: Maximum Likelihood; *When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Figure N3.*Scree Plot Depicting Factors of the Cultural Intelligence Measure Based on Eigenvalues*

Appendix O

Graphs and Tables for Assumptions Checking for the multiple Regression

Figure O1.

P-P Plot Depicting the Standardized Residual for the National Identity Measure

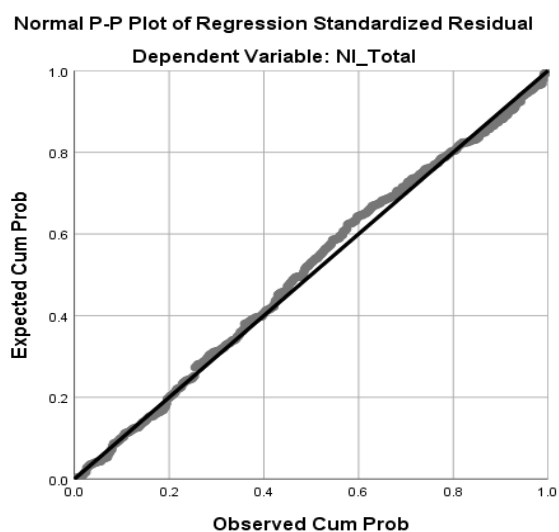


Figure O2.

Scatterplot of the Standardized Residuals for the National Identity Measure

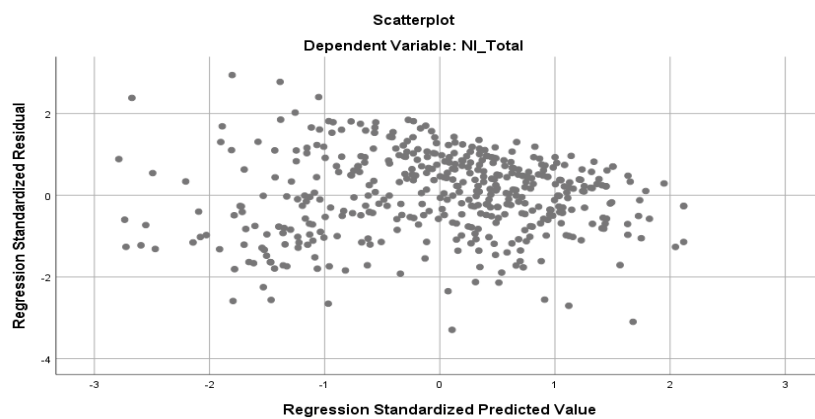
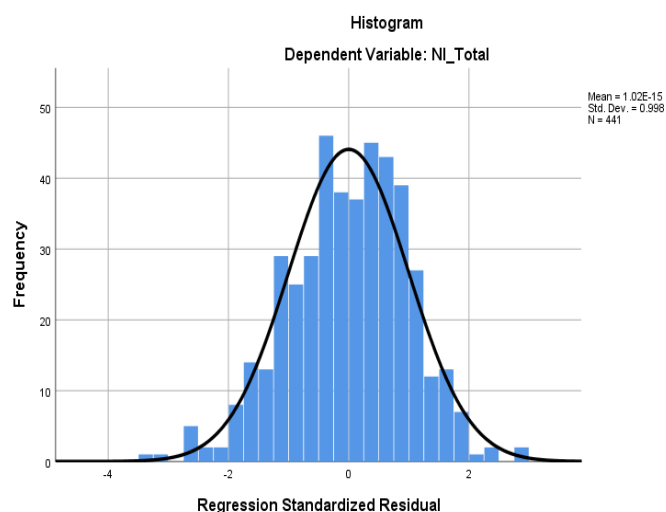


Figure O3.

Histogram Depicting the Standardized Residuals for the National Identity Measure

**Table O1.**

Residual statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	36.28	63.02	51.47	5.450	441
Std. Predicted Value	-2.788	2.118	.000	1.000	441
Standard Error of Predicted Value	.365	1.319	.600	.182	441
Adjusted Predicted Value	36.14	63.13	51.48	5.452	441
Residual	-25.054	22.355	.000	7.586	441
Std. Residual	-3.295	2.940	.000	.998	441
Stud. Residual	-3.301	2.959	.000	1.002	441
Deleted Residual	-25.139	22.637	-.002	7.645	441
Stud. Deleted Residual	-3.339	2.985	.000	1.004	441
Mahal. Distance	.019	12.249	1.995	1.976	441
Cook's Distance	.000	.071	.003	.006	441
Centered Leverage Value	.000	.028	.005	.004	441

Note. Dependent Variable = national identity.

Table O2.

Casewise Diagnostics for the National Identity Measure

Case Number	Std. Residual	NI	Predicted Value	Residual
47 (ASTU093)	-3.295	27	52.05	-25.054
299 (DDU160)	-3.099	37	60.62	-23.560

Note. NI = national identity; Dependent variable = national identity.