

THE ROLE OF SOCIAL INTELLIGENCE, BIG FIVE PERSONALITY TRAITS AND PSYCHOLOGICAL ADJUSTMENT ON UNIVERSITY STUDENTS' INTERCULTURAL COMPETENCE

BY

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The Role of Social Intelligence, Big Five Personality traits and Psychological Adjustment on University Students' Intercultural Competence

A Dissertation Report submitted to the School of Psychology in Partial Fulfilment of the Requirements for the Degree of Doctor of Philosophy (PhD) in Applied Developmental Psychology

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Declaration

I, Tessema Amente Bekere, hereby declare this dissertation work with the title 'the Role of Social Intelligence, Big Five Personality traits and Psychological Adjustment on University Students' Intercultural Competence' which is submitted by me to the School of Psychology of Addis Ababa University for the partial fulfilment of Doctor of Philosophy in Applied Developmental Psychology is my original work, and has not been previously submitted by me or anybody else at another University. The materials obtained from other sources have been duly acknowledged in the document.

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I hereby certify that I have read the revised version of this dissertation entitled 'the Role of Social Intelligence, Big Five Personality traits and Psychological Adjustment on University Students' Intercultural Competence' which is prepared under my supervision and I recommend that it is accepted as it fulfils the necessary requirements.

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Approval of Board of Examiners

As members of the Examining Board of the final PhD open defense, we certify that we have read and evaluated the dissertation entitled 'the Role of Social Intelligence, Big Five Personality traits and Psychological Adjustment on University Students' Intercultural Competence' prepared by Tessema Amente, and recommend that it be accepted as fulfilling the dissertation requirement for the degree of Doctor of Philosophy in Applied Developmental Psychology.

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ABSTRACT

The purpose of this study was to examine the role of social intelligence, big five personality traits and psychological adjustment on university students' intercultural competence. The research utilized a correlational research design. Data were collected twice: initially for instrument validation, involving reliability analysis, exploratory factor analysis (EFA), confirmatory factor analysis (CFA), as well as convergent and discriminant validity assessments, with 476 participants (male = 244; female = 232). The reliability and validity of the instruments were deemed satisfactory. The factor analysis conducted for instrument validation indicated that most items were valid and suitable *for the constructs they aimed to measure, which was further supported by favourable fit indices. Additionally, evidence for acceptable convergent and discriminant validity was established. The second round of data for the main study were collected from 528 participants (male = 276; female = 252) through proportionate stratified random sampling techniques. Measure of relationship, structural equation model (SEM) and MANOVA were used to analyze the data. The findings showed that a sizable percentage of participants, 36.7%, 38.5%, and 41.1%, scored lower than the mean in intercultural competence, social intelligence and psychological adjustment, respectively indicating a low level in these domains. The findings also showed that social intelligence, Big Five personality traits and psychological adjustment together explained 81% of the variation in university students' intercultural competence. When controlling for other variables, psychological adjustment emerged as the strongest predictor of intercultural competence, followed by social intelligence, agreeableness, and openness among personality traits. Standard multiple linear regression analysis indicated students' class year, linguistic abilities, and parental education levels as significant predictors of overall intercultural competence and its four dimensions. Moreover, there were significant differences in students' intercultural competence due to sex and the types of cultures they experienced prior to enrolling in university. However, no significant mean difference in intercultural competence was found between respondents from intact and non-intact homes. In conclusion, all major variables, except for family structure and neuroticism personality traits, have a statistically significant impact on university students' intercultural competency. The study's results addressed a range of practical and theoretical insights, as well as limitations and recommendations for future research.*

Key words: Intercultural competence, social intelligence, psychological adjustment, big five personality trait, university students, Ethiopia

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List of Abbreviations and Acronyms

AGFI- Adjusted Goodness Fit Index

AVE-Average variance extracted

AVS-Average shared squared variance

CR-Composite reliability

CFA - Confirmatory Factor Analysis

CVI- Content validity index

CVR- Content validity ratio

EFA - Exploratory Factor Analysis

GFI - Goodness of Fit Index

ICC- Intercultural Competence

KMO - Kaiser- Meyer-Olkin

MANOVA- Multivariate Analysis of Variance

MSV-maximum shared squared variance

NFI- Normed Fit Index

PCA- Principal Component Analysis

SD- Standard deviation

SEM- Structural Equation Model

RMSEA- Root Mean Square Error of Approximation

Chapter One

Introduction

1.1. Background of the Study

Recently, scholars have placed greater emphasis on intercultural competence issues, driven by the increasing global interconnectedness and the multicultural composition of nations around the world (Arasaratnam, 2015; Griffith et al). This shift underscores the necessity for individuals to develop the skills and knowledge required to navigate and thrive in multicultural environments. As a result, intercultural competence has become a prominent topic of academic study. Numerous empirical studies and theoretical models have identified various internal and external factors that influence university students' intercultural competence (Bennett, 2009; David et al., 2016; Deardorff, 2009; Deardorff & Jones, 2012; EngKee, 2015; Gonzales, 2017; Janelle & Tenzin, 2017; Ward et al., 2001; Vegh & Luu, 2019; Yuefang et al., 2008). Ethiopian higher education institutions are no exception, they reflect diverse cultural backgrounds among students.

Intercultural competence is defined as "the ability to interact effectively with individuals from different cultural backgrounds, encompassing not only specific skills and knowledge but also general personality traits" (Berry et al., 2002, p. 502). It involves negotiating cultural meanings and executing appropriate communication behaviours that acknowledge the multiple identities of interactants (Chen & Starosta, 1996). Chen and Starosta (2000) identify three components of intercultural competence: cognitive, affective, and behavioural abilities. Similarly, Simon et al. (2008) describe intercultural competence as a dynamic, self-reflective learning process that transforms attitudes, skills, and knowledge for effective cross-cultural communication. This on-going developmental process engages learners on cognitive, behavioural, and affective levels (Jonathan & Angela, 2007). Various conceptual frameworks

and models address aspects such as adjustment, integration, and adaptation (Deardorff, 2009). Intercultural competence, as explored through the lens of applied developmental psychological sceicne, refers to the ability to effectively and appropriately interact with individuals from different cultural backgrounds (Wertlieb, 2003). This competence is essential in today's globalized world and is influenced by various developmental factors:

Over the decades, the concept of intercultural competence has been articulated in different ways, including terms such as "cross-cultural competence" (Ruben, 1989), "global competence" (Hunter et al, 2006), and "cultural intelligence" (MacNab, 2012). Despite varied terminology, there is a growing consensus among scholars regarding the essential components of intercultural competence, cognitive, affective, and behavioural skills that support effective interactions across diverse eco-cultural contexts. Many scholars conflate interculturalism with multiculturalism, but they are conceptually distinct. Multiculturalism refers to a policy approach that manages cultural diversity by acknowledging and accommodating the needs of minority groups, allowing them to maintain their beliefs and practices within the dominant culture (Barrett, 2013). In contrast, interculturalism values cultural diversity and pluralism while emphasizing integration and social inclusion (Barrett, 2013; Tariq, 2021). Interculturalism is grounded in universal values such as human rights, democracy, and the recognition of equal dignity and respect for all individuals. Intercultural competence, as framed by applied developmental psychology, is a multifaceted construct that develops over time through various experiences. It involves cognitive, emotional, and social dimensions that are essential for effective interaction in a multicultural world. By fostering these skills, individuals can navigate and thrive in diverse environments, contributing to a more inclusive society.

The complexity of 21st-century global issues necessitates that university students cultivate intercultural competencies and self-awareness to function effectively in a rapidly globalizing world (Jones & de Wit, 2012). Higher education can enhance students' sense of domestic and global citizenship, involvement in social justice, and self-awareness (Gibson et al., 2008; Chao et al., 2011). Additionally, university years are critical for students as they define their identities and social roles (Gurin, 1999; Gurin et al., 2002), making this an ideal context for developing personal and social competencies.

Cultural diversity in universities is associated with higher student retention, lower dropout rates, and increased satisfaction, prompting institutions to foster students' intercultural competence and explore the complex interplay of various influencing factors (Chang, 2001). Recent evidence highlights the role of individual identity and background in shaping perceptions of intercultural competence (Wright, 2015; Janelle & Tenzin, 2017). Caligiuri (2000) notes that both intra-individual and inter-individual variables significantly affect students' intercultural attitudes. However, much of the existing research has primarily focused on international students and expatriates, often overlooking the influence of social intelligence, personality traits, and psychological adjustment on domestic students' intercultural competence (Johnson et al., 2006; Bennett, 2004, 2009; Hammer, 2011; Littrell et al., 2006).

A significant body of research (e.g., Azadipour, 2019; Bosuwon, 2016; Dong et al., 2008; Leung et al., 2014; Nikoopour & Esfandiari, 2017) supports the theoretical framework that social intelligence, personality factors, and psychological adjustment facilitate greater intercultural relational engagement. However, many of these studies originate from Western cultures characterized by dominant individualism, which may not fully capture the dynamics in multicultural contexts. For instance, research in the U.S. indicates a positive association

between intercultural competence and factors like interpersonal engagement, emotional intelligence, self-efficacy, and self-esteem (Joan & Yongling, 2008). Matsumoto et al (2004) further found that openness, flexibility, and critical thinking enhance university students' intercultural competence.

Numerous studies highlight various psychological and social factors influencing intercultural competence, including communication patterns (Gudykunst & Kim, 2003), emotional intelligence (Guntersdorfer & Golubeva, 2018), cultural intelligence (Kevin, 2017; Crowne, 2009), and multilingual skills (Asako, 2007). These findings suggest that intercultural competence is significantly affected by an array of psychological and social variables.

In this regard, earlier studies conducted in the U.S., Canada, Australia, the UK, and various European and Asian countries have focused on the development of intercultural competence among international or immigrant students (Deardorff & Jones, 2012; EngKee, 2015; Kim & Berry, 1993; Leung et al., 2014; Yeke & Semerciöz, 2016). Additionally, research across disciplines such as communication, pedagogy, psychology, and social anthropology has contributed to understanding intercultural competence (e.g., Anastasia, 2017; Anteneh, 2012; Fantini, 2005; Martin & Nakayama, 2008; Tong & Chen, 2008). However, many of these studies primarily address issues of adjustment and adaptation for immigrants rather than focusing on the specific dynamics within multicultural environments like Ethiopia.

Ethiopia is a multilingual and multicultural nation with various ethnic groups coexisting, making the study of intercultural competence essential, particularly in light of observed inter-ethnic conflicts. Previous research has indicated that low intercultural competence among Ethiopian university students often correlates with negative evaluations

of others, ethnocentrism, and inter-group conflicts (Abera, 2010; Yonas, 2018). Qualitative studies have linked low intercultural competence to prejudice, cultural and religious biases, historical contexts, and socio-cultural variations (Mekonnen, 2013; Melkamu & Ameyu, 2014; Misrak & Addisu, 2006).

Conversely, research examining the intercultural skills of university leaders and academic staff indicates a positive evaluation of intercultural attitudes, knowledge, and skills (Abeya & Frew, 2016). Quantitative studies by Anteneh (2012) and Hana (2019) found a significant positive relationship between students' intercultural competence, their ability to communicate in the host language and Amharic, and their emotional intelligence. This suggests that much of the existing literature in Ethiopia has concentrated on general aspects of intercultural competence.

A synthesis of local studies indicates that while higher education plays a crucial role in developing intercultural competence, few have explored the influence of social intelligence, personality factors, and psychological adjustment on this competence. Furthermore, many local studies have primarily utilized qualitative approaches, which may limit their ability to quantitatively assess relationships between different variables. Thus, this study views higher education institutions as vital contexts for intercultural interaction, given the considerable diversity among Ethiopian university students today.

Overall, strong theoretical and empirical connections exist between intercultural competence and psychological variables. Vygotsky (as cited in Berry et al., 2002) suggested that all functions in human cultural development occur at both social (inter-psychological) and individual (intra-psychological) levels. This perspective underscores the inseparability of culture and behaviour (Miller, 1997b; cited in Berry et al., 2002) and implies that the

development of intercultural competence is inherently linked to both psychological and sociological factors.

Although numerous studies (e.g., Bosuwon, 2017; Breithaupt, 2017a; Martinus, 2018) indicate that various psychological and social variables predict intercultural competence, there is a lack of research specific to Ethiopian university students. Therefore, this study aims to address this gap by examining the role of social intelligence, the Big Five personality traits, and psychological adjustment as key variables in understanding intercultural competence among university students.

1.2. Statement of the Problem

University is a place where both academic learning and social life experiences are obtained. Also, university life often coincides with young adult's time of exploration and growth of being autonomous and forms view about themselves and others (Arnett, 2000; Eccles et al., 2003). In this dynamic time of development, individual's behaviour may be influenced by several factors of which some are direct and others indirect. Since different scholars have conceptualized intercultural competence, various study findings have been reported showing that cultivating intercultural competence is indispensable to the education process and affected by multitude aspects of college life (Berry et al., 2002; Deardorff & Jones, 2012; Fantini, 2009). Further, several scholars have reported that university students' intercultural competence was influenced by their social intelligence, personality traits, psychological adjustment, attitude and assumptions of individual towards cultural diversity, motivation, socio-politics, cognitive flexibility and job satisfaction (David et al., 2016; Guntersdorfer & Golubeva, 2018; Reid, 2013; Vegh & Luu, 2019; Wang et al., 2020).

On the other hand, earlier studies conducted in the western individualistic culture have yielded inconsistent results. For instance, Janelle and Tenzin (2017) and Van der Ze and

Oudenhoven (2013) reported that except openness all personality factors (i.e., extraversion, agreeableness, neuroticism, and conscientiousness) are significant predictors of university students' intercultural competence. Chan and Sy (2016) found that agreeableness, openness and conscientiousness traits predict intercultural competence whereas; neuroticism and extraversion did not predict student's intercultural competence. Moreover, Azadipour (2019) indicated that among five personality traits, only extroversion is influencing intercultural competence. Likewise, Ringsa and Allehyani (2020) found that openness and conscientiousness positively and neuroticism negatively predict students' intercultural competence while, both extraversion and agreeableness did not influence students' intercultural competence. However, in the context of Ethiopian university students, studies did not pay attention to the role of personality traits on intercultural competence and thus no empirical evidence exists to show the relationship between the two variables.

With regard to the role of social intelligence, several studies (e.g., Bosuwon, 2016; Dong et al., 2008; Nikoopour & Esfandiari, 2017) conducted in the western world have found positive relationship between social intelligence and intercultural competence of university students. This is also supported by Tucker, Gullekson, and Kiger's (2012) study, which found positive relationship between social intelligence and intercultural competence of university students who study abroad and expatriates. Others also found that social intelligence influence intercultural competence and college performance of expatriate students (Harrison & Voelker, 2006; Ornstein & Nelson, 2006). Further, a number of studies (e.g., Hirai et al., 2015; Martinus, 2018; Tuncel & Arıcıoğlu, 2017) showed that there is significant correlation between students' intercultural competence and their psychological adjustment.

Additionally, various studies mainly focused on the relationship between intercultural competence and emotional intelligence (Saberi, 2012), student motivation (EngKee, 2015), ethnic identity (Yonas, 2018), social media (Sawyer & Chen, 2012), self-regulation (Dennis,

2011), self- efficacy (Owens et al., 2010), self-esteem (Dong et al., 2008) and cultural conflict (Michaela, 2015). This implies that earlier studies have not given due attention to the variables being investigated in the current study.

However, many of these studies were based on the experiences of international students who had been pursuing their studies in western countries. In these countries, the culture is typically individualistic that promotes autonomous individuation whereas the culture in Ethiopia is typically collectivist that promotes interdependence among individuals (Abebaw, 2014; Anteneh, 2012; Abebaw & Zellelew, 2007). Thus, because of this apparent cultural difference in the two contexts, it would not be reasonable to expect the same findings in the Ethiopian context in general and among university students in particular.

Regarding the Ethiopian University students' intercultural competence, with the rapid changes in the multicultural composition of Ethiopian higher institutions, understanding students' level of intercultural competence and associated psychological variables has gained increasing theoretical, empirical, and practical salience. Actually very few studies have been conducted on intercultural dialogues and intercultural communication (Anteneh, 2012; Melkamu & Ameyu 2014), ethnic identity and the relations of Amhara, Oromo and Tigray students at AAU (Abera, 2010), impacts of Ethnocentrism and Stereotype on Inter-Cultural Relations (Mekonnen, 2013), Place of diversity in the Ethiopian education (Tariku & Gara, 2016), intergroup relationship (Arega, 2014), systems of intercultural communication (Misrak & Addisu, 2006) and diversity management (Hailemariam, 2016) among university students. However, none of these studies has shown the role of social intelligence, personality traits and psychological adjustment on students' intercultural competence.

On the one hand, university is the place where young adults brought fundamentally novel capability of academics, social, lingual, psychological and personal growth that support

them to build their minds for the next social and personal responsibility (Abebaw & Tilahun, 2007; Chiu, Masumoto, Ward & Colleen, 2013; Griffith et al., 2016; Janelle & Tenzin, 2017). On the other hand, universities are one of the circumstances where ethnic tensions and intercultural conflicts become the major battle fields for students in Ethiopia (Abebaw, 2013). Hence, research/evidence-based understanding of intercultural competence and associated psychological factors could play a supportive role to effectively manage campus diversity as well as ethnic and intercultural tensions. However, there is no sufficient empirical evidence showing the status of intercultural competence and associated psychological determinants among Ethiopian (domestic) university students.

Extensive literatures in the western world (e.g., Albert & Trommsdorff, 2014; Ivett & Irina, 2018; Kevin, 2017; Kempen & Engel, 2017) have explored the relationship of intercultural competence with some variables. However only limited local studies (e.g., Geleta & Frew, 2013; Mekonnen & Endawek, 2007) have explored cultural diversity and related issues among Ethiopian university students. One can easily note that these studies are not adequate to comprehensively understand and analytically address issues of university students' intercultural competence and related psychological determinants. Further, some domestic studies conducted on multiculturalism and university students suggested that in order to adequately understand and manage inter-ethnic and intercultural tension, examining the status and contributing factors of intercultural competence is pivotal (Abebaw & Tilahun, 2007; Abera, 2010; Hailemariam, 2016, Mekonnen, 2013). The Ethiopian higher education proclamation, on its part, indicated that in advocating and endorsing their mission universities have to adopt the steering principles of multiculturalism (FDRE, 2009). However, endorsing such principles requires pragmatic and analytical understanding of university students' level of intercultural competence and associated factors. Moreover, few empirical reports and

personal observations indicate apparently universities in Ethiopia have not aptly pact with the issues of intercultural competence and associated factors.

This implies that in Ethiopia, as far as the knowledge of the researcher is concerned adequate research has not been done with regard to the relationship between social intelligence, personality traits, psychological adjustment and intercultural competence of university students. Further, the researcher had tried to search various sources online, offline/in library but could not come across any study that investigated the role of social intelligence, big five personality traits and psychological adjustment on university students' intercultural competence. What makes the present study even more important and timely is the existence of several and frequent inter-ethnic and intercultural conflicts among university students in Ethiopia that interrupt the teaching-learning process and healthy functioning of universities. In this regard, Abebaw (2019) reported that universities are places where students from diverse ethnic, social and cultural backgrounds come together to live and study. However, universities in Ethiopia have not been able to resolve inter-ethnic and inter-cultural tensions on their own campuses.

Hence, healthy interactions of students from different cultural backgrounds have deteriorated and the current government is forced to placing federal police to safeguard the full functioning of the universities. Thus, the factual contexts in which our universities are actually functioning call for an examination of the context of university students' intercultural competence and associated factors.

Therefore, based on the research gaps given above the researcher felt that it is worthwhile to fill these gaps and add knowledge to the existing literature by studying the role of social intelligence, big five personality traits and psychological adjustment on university

students' intercultural competence. To this end, the following basic research questions are put forward.

1.3. Research Questions

1. What is the level of university students' intercultural competence, social intelligence, psychological adjustment and personality profile?
2. Do social intelligence, personality traits and psychological adsjutment have significant unique and joint contributions in predicting university students' intercultural competence?
3. Are there statistically significant differences in intercultural competences due to demographic variables (i.e., sex, perceived cultural network lived before joining campus, family structure,class year, number of languages spoken, and parental level of education)?
4. Which dimensions of intercultural competence are better predicted by social intelligence, personality traits and psychological adjustment?
5. Does psychological adjustment play significant mediational role between social intelligence, personality traits and intercultural competence?

1.4. Objective of the study

The overall objective of the study is to examine the role of social intelligence, personality traits and psychological adjustment on university students' intercultural competence.

The specific objectives of the study are presented below.

- Identify the level of students' intercultural competence, social intelligence, psychological adjustment and big five personality traits profiles.
- Examine the nature of interrelationship among intercultural competence, social intelligence, personality traits and psychological adjustment.

- Determine the unique and joint contributions of social intelligence, personality traits and psychological adjustment in predicting intercultural competence.
- Investigate whether or not there are statistically significant differences in intercultural competence with respect to demographic variables (i.e., sex, perceived cultural context lived before joining campus, class year, family structure, number of languages spoken, and parental level of education).
- Explore the extent to which dimensions of intercultural competence are influenced by students' social intelligence, personality factors and psychological adjustment.
- Identify the mediational role psychological adjustment plays in the relationship between social intelligence, personality traits and intercultural competence.

1.5. Significance of the study

The present study is significant in various ways. As enormous empirical evidence presented earlier showed, greater part of the earlier studies on university students' intercultural competence and associated factors have initially focused on the western individualistic countries in which intercultural competence and related issues were often seen from migration, expatriates and recently internationalization of higher education. Hence, the planned study will bring new insights and extends the existing body of knowledge on intercultural competence and associated factors among Ethiopian university students. This means that the findings of this study will have both theoretical and practical implications to the field.

The theoretical importance of the study will be associated with the evidence that it brings to the fore while examining the status of intercultural competence and the extent to which both internal and external factors contribute to the issues under consideration among emerging adult university students. This implies that from the derivation of intercultural

competence continuity and prevalence, exploring the major psychological predictors of intercultural competence of university students will have significant theoretical contribution in the sense that it adds knowledge to the limited literature in the area. In addition, it will increase the accessibility of information and useful evidences about the extent to which intercultural competence is influenced by psychological factors and other demographic characteristics of university students.

The practical significance of the study will be allied with improving university students' social intelligence skill, psychological adjustment, personality profile, communication and problem solving skill that will have strong influence in improving intercultural competence of university students. On the other hand, the findings will help the universities to assess the institutional mechanism and practices that could bring about more positive outcomes on students' intercultural competence.

Obviously, in Ethiopian universities, there are several records confirming inter-ethnic conflict among students (Adamu, 2013; Merera, 2006; Baharu, 1994). Even in the near past, there were serious conflicts between students from various backgrounds in our universities. Although, the causes of inter-ethnic conflict are varying, lack of intercultural competence may be among the major reasons of the problem. Therefore investigating the role of social intelligence and personality factors on university students' intercultural competence with a mediating role of psychological adjustment will have paramount theoretical ~~a~~nd practical significance in the effort to resolve the conflicts.

First, life in campus gives tremendous opportunity of maintaining intercultural competence development that promotes local and transnational multi-cultural intelligence development of university students. Thus, university students in particular and the community in general will be the principal beneficiaries of the results of the study. Second,

while the study examines the status of university students' intercultural competence and associated psychological factors with a mediating role of psychological adjustment, the study results will help universities design effective and efficient strategy that will improve intercultural competence, social intelligence, psychological adjustment and communication skill of university students. Third, the results of the study will also provide empirical information to university administrators, policy makers and politicians to plan intercultural dialogues among university students and staff so as to improve domestic and transnational intercultural competence of the students that will be promising for inter-ethnic conflict regulation and diversity management. Moreover, the study results will benefit researchers to get empirical insight with regard to the status of intercultural competence, social intelligence, psychological adjustment and personality trait profiles in the context of university students. Finally, the findings of this study will be important as a reference for other researchers interested in the area of intercultural competence and associated factors.

1.6. Scope of the study

The study is delimited to investigate the role of social intelligence, big five personality traits and psychological adjustment on intercultural competence of public university students. The study area is delimited to public university students in the Oromia regional state. There are several reasons for selecting public universities in the Oromia regional state. First, public universities students composition in the Oromia regional state would be relatively the same as other universities in the country. That is, random assignment would not result in significant ethnic, culture, gender and religious disparity among students population across universities. Second, the study area is chosen due to the fact that the setting is easily accessible and it permits instant rapport with study participants as suggested. Third, as far as the researcher's knowledge is concerned, among the earlier local studies in the area majority of the studies focused on public university in Addis Ababa city administration ,

Amhara regional state and Southern nation, nationality and peoples regional state (e.g., Abebaw, 2014; Arega, 2014; Anteneh, 2012; Misirka & Adisu, 2006; Tariku & Gara, 2016; Yonas, 2018). Although Oromia has large coverage of university student pupulation and was a hot spot for inter-ethnic and intercultural conflicts it was not sufficiently studied. Finally, the researcher's teaching experience in one of the targeted universities and having close colleagues in the remaining target universities in the region would make data collection from participants easier.

In terms of population, the study participants were delimited to only 3rd year and above regular undergraduate students. This is because; these students were in the universities for a longer period than first year and second year students and thus can have better experience in relation to intercultural competence and inter-ethnic conflicts. With regard to variables measured, the present study was delineated to the dependent variable of the study (i.e., intercultural competence), independent variables (i.e., social intelligence and big five personality traits), and mediating variable (i.e., psychological adjustment). Despite the fact that there are a number of demographic variables, the study examined only sex, perceived cultural network before joining campus, family structure, number of languages spoken, and parental level of education.

1.7. Operational definitions

Intercultural Competence is defined as university students' knowledge and ability to successfully deal with intercultural encounters as measured by Fantini's (2005) intercultural competence scale.

Social intelligence is the ability to understand others; one's own social interactions and apply this knowledge in leading and influencing others for their mutual satisfaction as measured by Silvera et al (2001) Social Intelligence scale.

Personality factor is defined as university student's tendency to exemplify unique characteristics such as openness, conscientiousness, extroversion, agreeableness and Neuroticism as measured by Konstabel et al (2012) big five personality inventory scale.

Psychological adjustment is the general feeling of welfare and contentment that one can experience because of lessening of stress in the new eco-culture contexts and it also refers to psychological (cognitive, affective and behavioural) changes that university students go through in the adaptation process as measured by Othman et al (2014) psychological adjustment measuring instrument.

Chapter Two

2. Review of Related Literature

In this section, historical overviews and meaning of intercultural competence, emerging issues among university students and approach of intercultural competence are presented in detail. Likewise, relevant related literatures about the role of social intelligence, big five personality traits and psychological adjustment on intercultural competence are discussed. Further, theoretical and conceptual frameworks and implications of the reviewed literature are presented.

2.1. Historical Overview of Intercultural Competence

Research on intercultural competence began gaining attention in the 1960s (Arasaratnam, 2016), focusing primarily on Americans relocating for work. Early studies (e.g., Gardner, 1962; Smith, 1966) explored key features such as sensitivity, stability, openness, and flexibility in the context of cultural adaptation (Nadeem, Mohammed & Dali, 2018).

The 1970s marked another significant period in the study of intercultural competence. Hammer, Gudykunst, and Wiseman (1978) identified interpersonal relationships, psychological stress, and communication effectiveness as crucial dimensions of intercultural effectiveness. Ruben and Kealey (1979) highlighted social and interpersonal behaviours such as empathy and interaction management that facilitate cross-cultural adaptation.

The 1980s saw the launch of the International Journal of Intercultural Relations, which shifted scholarly focus toward the relationship between intercultural competence and interpersonal communication. Key contributions during this time included the work of

Spitzberg and Cupach (1984, 1989) and Parks (1994), who emphasized appropriate and effective interactions as foundational to intercultural competence.

In the 1990s, research expanded further, building on previous findings. Chen (1990) proposed 15 theorems and 11 propositions regarding the components of intercultural competence, while frameworks such as Identity Negotiation Theory (Ting-Toomey, 1993), Identity Management Theory (Cupach & Imahori, 1993), and Anxiety/Uncertainty Management Theory (Gudykunst, 1993) emerged, marking a pivotal point in the theoretical development of intercultural competence. Since 2000, notable changes have occurred, with scholars increasingly treating intercultural competence and intercultural effectiveness as interchangeable concepts (Bradford, Allen, & Beisser, 2000).

2.2. Conceptualization of Intercultural Competence

In order to get a clear understanding of the idea behind intercultural competence, it is crucial to define culture that represents the main cause for challenges during an intercultural encounter and needs for intercultural competences. That is, it seems appropriate to conceptualize culture before conceptualizing intercultural competence.

2.2.1. Definitions of Culture

Many scholars (e.g., Huntington & Harrison, 2000; Dorfman, 2004; Kummer, Leimeister, & Bick, 2012; Samovar, Porter, & McDaniel, 2012; Lustig & Koester, 2013) note that due to conceptual developments across diverse scientific fields and the influence of subjective and situational factors, the term "culture" lacks a consistent definition. A comprehensive review by Kroeber and Kluchhon (cited in Daniel, 2016) and Brody (2003) identified over 160 different definitions of culture. For instance, Ting-Toomey (1999, p. 10) described culture as "a complex frame of reference consisting of patterns of traditions,

beliefs, values, norms, symbols, and meanings shared to varying degrees by members of a community." In contrast, Schein (2010, p. 18) defined it as "a pattern of shared basic assumptions learned by a group as it solved its problems." Tylor (cited in Kyung, 2015) characterized culture as a "complex whole" that includes knowledge, beliefs, art, morals, laws, customs, and any other capabilities acquired by individuals as members of society.

Overall, culture is often conceptualized as a dynamic, contextually defined orientation scheme transmitted across generations. It encompasses basic norms, values, attitudes, and beliefs exhibited through artifacts, ultimately enabling members to integrate into society and adapt to external challenges (Abramson, Keating & Lane, 1996; Stauss & Mang, 1999).

The concept of culture is typically examined through two models: Hofstede's (1984) national culture and the holistic cultural model by Karahanna, Evaristo, and Srite (2005). Hofstede's theory posits that nations possess "distinctive, influential, and describable" cultures, reflected in deeply held values and collective beliefs about concepts such as good vs. evil and rational vs. irrational. Through factor analysis, Hofstede identified five dimensions of national culture: power distance, uncertainty avoidance, individualism-collectivism, masculinity-femininity, and short-term vs. long-term orientation. In contrast, the holistic model by Karahanna et al. (2005) emphasizes the multidimensionality of culture, highlighting the need for a comprehensive understanding of cultural factors essential for intercultural competence.

2.2.2. Characteristics of Culture

Overall, McDaniel, Samovar and Porter (2006) have appealed that scholars broadly agree on five characteristics of culture. (i) *Culture is learned*: individuals are born without knowledge of cultural rules but gradually gain them. (ii) *Culture is transmitted*

intergenerationally: new generations learn from older generations in different forms. (iii) *Culture is symbolic*: symbols are used to convey meaning. (iv) *Culture is dynamic*: it evolves and undergoes changes through interaction with other cultures, historical events, and technological changes. (v) *Culture is ethnocentric*: a strong sense of identity can lead to feelings of superiority over others.

2.2.3. Intercultural Competence

While no single definition of intercultural competence has been universally accepted, the term has been defined and used by various scholars over recent decades (Deardorff, 2011). Researchers often use terms interchangeably, leading to a lack of dialogue about their meanings (Sullivan & Cottone, 2010). Different notations for intercultural competence can be found in earlier literature, including terms like cross-cultural competence, cross-cultural effectiveness, multicultural competence, intercultural intelligence, and global mind-set (e.g., Martin, 2010; Morley & Cerdin, 2010; Ruben, 1989; Kealey, 1989; Dinges, 1983).

Many definitions of intercultural competence exist. For example, Johnson et al. (2006, p. 530) describe it as "an individual's effectiveness in drawing upon a set of knowledge, skills, and personal attributes to work successfully with people from different cultural backgrounds." Hammer (2011) defines it as "the ability to think and act in interculturally appropriate ways." Byram (1997) identifies its components as knowledge, skills, and attitudes, complemented by the values that reflect a person's social identities.

Giovanna, Furio, and Giorgio (2011) offer a comprehensive definition, describing intercultural competence as "the capacity to mobilize culturally conscious knowledge, skills, behaviours, and values to address volatile and unfamiliar situations arising from encounters with individuals from different cultures." Fantini (2005) outlines five dimensions: awareness,

attitudes, skills, knowledge, and proficiency in the host language. Bolten (2012) defines it as interplay of professional, individual, social, and strategic competencies. Similarly, Chen and Starosta (2000) emphasize that intercultural competence encompasses cognitive, affective, and behavioural abilities in intercultural communication. Spitzberg and Changnon (2009) conceptualize intercultural competence as "the appropriate and effective management of interaction between individuals with different cognitive, affective, and behavioural orientations."

Notably, Deardorff (2006, p. 198) established a foundational definition through a comprehensive Delphi survey involving 23 leading researchers. She defines intercultural competence as the ability to communicate effectively and appropriately in intercultural situations based on one's intercultural knowledge (including cultural self-awareness, culture-specific knowledge, sociolinguistic awareness, and understanding global issues), skills (such as listening, observing, evaluating, analysing, interpreting, and critical thinking), attitudes (including respect, openness, curiosity, and discovery), and both internal outcomes (like flexibility, adaptability, empathy, and an ethno-relative perspective) and external outcomes (such as becoming interculturally competent).

Various definitions indicate that, while no single definition of intercultural competence is universally accepted, many researchers acknowledge its multidimensionality. Intercultural competence can be understood as the cognitive, behavioural, affective, attitudinal, skill-based, social, and critical cultural cognition capabilities that individuals utilize to adapt effectively in diverse contexts. It involves the appropriate and effective management of interactions between people with differing cognitive, affective, and behavioural orientations to eco-cultural contexts.

Several scholars (e.g., Müller & Gelbrich, 2001; Deardorff, 2006, 2009, 2011; Tirmizi & Fantini, 2006; Perry & Southwell, 2011) emphasize that intercultural competence encompasses the ability to interact effectively and appropriately with individuals from other cultures or subcultures based on one's intercultural knowledge, attitudes, skills, and behaviours.

Currently, intercultural competence is recognized as an important theoretical construct in models of human behaviour and a critical variable in psychological research (Chen & Starosta, 2000; Matsumoto & Yoo, 2006). Despite a general consensus on its importance in understanding human behaviour, notable conceptual differences exist regarding the ways in which culture in general and intercultural competence in particular is associated to human behaviour (Deardorff, 2011; Eva, 2013; Morley & Cerdin, 2010; Segall, Lonner, & Berry, 1998).

2.2.4. Approaches to understanding Intercultural Competence

Personality Approach: Research on personality and its operationalization for scientific analysis began with Allport (in Bernard, Walsh & Mills, 2005), who argued that personality is a complex construct with multiple meanings. A widely accepted study identifies five overarching personality factors that provide a comprehensive overview of an individual's cognitive, affective, and behavioural traits (Goldberg, 1990; McCrae & Costa, 1997). Scholars have explored the impact of personality on intercultural competence (e.g., Caligiuri, Tarique & Jacobs, 2009; Huang, Chi & Lawler, 2005; Peltokorpi & Froese, 2012; Shannon & Begley, 2008; Ward, Leong & Low, 2004), offering empirical evidence of how specific personality traits affect various aspects of intercultural competence, including performance, leadership, and adjustment.

The primary aim of the personality approach is to identify and define the profile of successful students in both international and domestic contexts. Research has identified traits such as empathy, tolerance, and flexibility (Ruben, 1989), along with the ability to handle prejudice, stereotypes, and ethnocentrism (Brislin, Worthley & Macnab, 2006), as predictors of intercultural competence.

Despite these findings, personality approaches have led to various typologies of intercultural competence (Bolten, 2012). However, critics argue that these typologies are often incomplete and lack a clear distinction between personality traits and other factors influencing intercultural competence. Additionally, due to the inconsistent cross-contextual effects of personality on the intercultural competence of university students, researchers have contended that personality cannot be the sole predictor of intercultural competence (Gudykunst & Kim, 2003).

Adjustment Approach: Despite the growing theoretical sophistication in cross-cultural transition studies, there has been a significant shift toward psycho-sociocultural adjustment approaches in understanding intercultural competence (David, 1972; Mumford, 1998; Ward et al., 2004). This perspective suggests that living conditions, learning and working environments, and levels of adjustment are crucial for success in intercultural competence.

Hammer et al. (1978) proposed a three-factor model of adjustment linked to intercultural competence, which includes: (1) the ability to manage psychological stress, (2) the ability to communicate effectively, and (3) the ability to establish interpersonal relationships. Various studies have employed both empirical and conceptual frameworks to describe adjustment. For instance, Mendenhall and Oddou (1985) identified affective, behavioural, and cognitive components of psychological adjustment, including psychological

well-being, functional interaction with hosts, and acceptance of appropriate attitudes and values.

Similarly, Black and Stephens (1989) highlighted three behavioural facets of sojourner adjustment: general adjustment (managing daily activities), interaction adjustment (relating effectively to host nationals), and work adjustment (accomplishing work-related objectives). Other researchers have also focused on work adjustment (Lance & Richardson, 1985), economic adjustment (Aycan & Berry, 1996), and academic adjustment (Lese & Robbins, 1994). A common theme across these models is the recognition that psychological well-being and effective relationships with members of the new culture are vital for successful adaptation.

Psychological adjustment relates to the emotional outcomes of life changes, with a lack of adjustment often referred to as acculturation distress (Berry & Sam, 1997). This distress is measured along both positive and negative dimensions, including psychological well-being and personal life satisfaction (Wang & Mallinckrodt, 2006; Ward et al., 2001).

The cultural adjustment model posits that key individual factors, such as self-efficacy and social support, act as precursors to cultural adjustment, which in turn affects psychological adjustment. Church (1982) identified self-efficacy and social support as consistent predictors of cultural adjustment. Additionally, exposure to various eco-cultural contexts and the ability to engage in appropriate behaviours facilitate adjustment (Guthrie, 1975; Ward et al., 2004; Ward & Kennedy, 1992). Greater experience in diverse contexts correlates with better psychological and sociocultural adjustment, enhancing intercultural competence (Lee & Sukoco, 2010; MacNab, Brislin, & Worthley, 2012; Ward et al., 2004).

Conversely, critics of the adjustment approach argue that situational variables combinations of people, places, and incidents do not inherently determine the success of overseas or campus assignments; rather, effective management of these variables is crucial (Thomas, 2003). Furthermore, personality traits and additional factors are necessary for a deeper understanding of intercultural competence (Kealey, 1996; Palthe, 2004). Overall, the adjustment approach has produced inconclusive empirical results over time (Oguri & Gudykunst, 2002).

Communication Approach: Several scholars (e.g., Deardoff, 2006; Gudykunst, 2005; Kupka, 2008; Veenunkarn, 2016) have highlighted that effective information exchange among individuals from diverse cultures is a key indicator of intercultural competence. This approach connects intercultural competence with the ability to exhibit appropriate and effective communication behaviours in intercultural situations (Lustig & Koester, 2010). Developing intercultural competence involves the individual's ability to cultivate a clear and stable cultural identity. Communication not only shapes a person's identity but also enhances their perception of intercultural competence (Wiemann, 1977).

Research indicates that highly competent intercultural communicators engage in interactions that prioritize preserving relationships, affirming cultural identity, and achieving goals through contextually appropriate behaviours (Furnham & Erdmann, 1995; Collier & Thomas, 1988). Generally, effective communication behaviour is rooted in respect and responsiveness toward others, requiring flexibility and a willingness to listen (Martin & Hammer, 1989). Additionally, studies (e.g., Baruch, Dickmann, Altman, & Bournois, 2013; Black & Stephens, 1989) demonstrate that greater cultural distance increases the likelihood of misunderstandings, necessitating enhanced intercultural competence. Thus, effective

intercultural competence enables individuals to decode both verbal and nonverbal messages, reducing the chances of communication breakdowns.

Spitzberg (2006, p. 380) conceptualizes intercultural communication competence as a "theory of interpersonal competence in intercultural contexts." He defines intercultural interaction as a contextually defined, transactional, and systematic process comprising five competencies: (1) Knowledge (e.g., language, culture, rules), (2) Motivation (e.g., feelings, intentions, needs), (3) Skills (e.g., respect, role flexibility, speech accommodation), (4) Appropriateness (e.g., adherence to relationship norms), and (5) Effectiveness (e.g., achieving goals relative to effort). Although the notion of national culture may seem out dated due to globalization, studies indicate that without cultural knowledge and the skills to apply it, both appropriateness and effectiveness cannot be achieved (Hana, 2013; Ladegaard, 2007). Brown and Levinson (1987) argue that maintaining face is a universal, cross-cultural concern, as it is vulnerable to threats from both one's own actions and those of others in intercultural interactions.

Throughout the acculturation process, members of a cultural group develop communication competence that prepares them for their environments (Arasaratnam, 2006). However, when cultural differences become pronounced, the complexity of intercultural interactions emerges, influenced by various contexts and their associated perceptual and procedural rules (Baruch et al., 2013). While Deardorff's (2011) causal path process model is recognized as a general model of intercultural competence in Western contexts, the non-Western perspective remains underexplored. Therefore, this study aims to investigate the roles of social intelligence, personality factors, and psychological adjustment on university students' intercultural competence using a causal path process model within a non-Western context.

2.3. Social Intelligence

The concept of social intelligence was first coined by Dewey (1909) and Lull (1911). However, its modern concept has been attributed to Thorndike's (1920) category of intelligence into three parts; such as *abstract intelligence*- the ability to understand and manage ideas, *mechanical intelligence*-ability to manage and understand concrete objects and *social intelligence*- ability to understand and manage people. In this regard, Thorndike defines 'social intelligence as the ability to understand and manage men and women, boys and girls to act wisely in human relation.' Furthermore, Smith (2018) offers the most comprehensive description of social intelligence as the 'ability to get along with people in general, social technique or ease in society, knowledge of social matters, susceptibility to stimuli from other members of a group, as well as insight into the temporary moods or underlying personality traits of strangers.' On the other hand, Guilford (1967 cited in Wong & Law, 2021) defines social intelligence in terms of cognition, convergent and divergent production, memory, and evaluation of behavioural contents.

Reviewing the literature up to 1983, Landy (2006) characterized the search for social intelligence as long, frustrating, and fruitless. However, the landmark episode for the concept of social intelligence was linked to the emerging of Gardner's' theory of multiple intelligences (Gardner, 2011), that stated interpersonal intelligence as the ability to notice and make distinctions among other individuals. Essentially, the growing interest of psychologists in cognitive neuroscience and neurobiological data gave a new life to the notion of social intelligence being distinguished from other intelligence and getting sound attention (Kihlstrom & Cantor, 2000).

The recent and empirically dominant conceptualization of social intelligence was forwarded by Weis and Süß (2005). According to these scholars, social intelligence has been

explained in terms of social awareness, social information processing, and social skills. Generally in current social world formation enormous scholars (e.g. Gardner, 2011; Goleman, 2007; Lievens & Chan, 2008; Palucka et al., 2011) understood social intelligence as a multi-dimensional construct that has been influencing and influenced by several psychological, social and cultural factors including intercultural competences. Likewise, most contemporary research efforts appear to conceptualize social intelligence relying on the fundamental definition of Thorndike. Most importantly, many researchers (e.g., Goleman, 2007; Lievens & Chan, 2008; Palucka et al., 2011; Thorndike, 1920) indicated the distinction between cognitive social intelligence (e.g., social perception and understanding other people), behavioural social intelligence (i.e., to act wisely in human relations and effectiveness in social situations), affective social intelligence (e.g., empathy).

Generally speaking, the concept of social intelligence that paves the way for social reform and activities that seek to develop human well-being, intensify civic culture, increase commitment to other human beings and bring about positive change in society is a multi-dimensional construct. This implies that as part of positive psychology movement, and social intelligence is positively considered in the social spectrum, it would have positive contribution on the intercultural competence experience of emerging adults that helps them to cultivate meaningful and fulfilling social capitals of human beings to enhance their experiences of love, work, and play.

2.4. Personality Traits

Murphy (1932, P.386) long ago defined personality as a sum of all individual's traits that predict, modify, and control human behaviour. On the other hand, Cost and McCare (1985) conceptualize personality as a combination of enduring characteristics of interpersonal, attitudinal, pragmatic, motivational and emotional nature that explain one's

behaviour in different situations. Others describe personality as a set of perpetual and systematic psychological traits which effect a person's communication and adjustment of inter and intra psychic states (Larsen & Buss, 2008). In recent time, the concept of personality is conceptualized as the interaction between biological and environmental factors (McLeod, 2014). This implies that personality is an interaction of nature (innate instincts) and nurture (parental, eco-cultural and enviornmnetal influences).

Larson and Buss (2008) described personality as a framework for understanding individual differences and predicting human behavior. They explained that human personality can be broken down into several distinct components: the *biological* aspect, which includes the interaction of biological, physiological, and psychological systems; the *dispositional* component, which refers to inherent individual differences; the *intra-psychic* domain, which involves unconscious mental mechanisms; the *cognitive-experiential* component, which encompasses conscious processes such as thoughts, emotions, beliefs, and desires; the *social and cultural* influences, which involve social norms and values; and finally, the *adjustment* domain, which concerns how individuals manage, adapt to, and cope with the challenges of daily life.

In this study, the Big Five personality traits have been extensively supported by empirical research (Goldberg, 1990; McCrae et al., 2004) and are known for their stability over time (Costa & McCrae, 1992), demonstrated reliability (Konstabel et al., 2012) and predictive validity in forecasting individual behavior (McAdams & Pals, 2006) are considered as potential predictors of university students' intercultural competence. Additional research has showed that different tests, languages, and methods of analysis do not alter the model's validity. These five traits construct are defined as: *Agreeableness;* characterized by traits of kindness, warmth and trust reflecting cooperation and social harmony, *Extraversion*; concerns traits like assertiveness, talkativeness and engagement with the external

environment, conscientiousness;- concerns the way in which we manage our impulses and is characterized by, for example, thoroughness and reliability, *Neuroticism*; includes traits like nervousness, moodiness and temper, referring to the tendency to experience negative feelings and, *Openness*; - contrasts conventional individuals with people who are imaginative, curious and creative (Barrick & Mount, 1991)

In short, due to the fact that various studies have shown that this construct is generally considered instrumental in numerous eco-cultural situations like USA, Europe, Asia and some African countries, the researcher assumed that it is worthwhile to use it in the current study as a predictor of university students' intercultural competence (e.g., Capra, Barbaranelli & Comery, 1995; Chishti, 2002; Konstable et al., 2012). Intercultural competence of people may differ in accordance with their prevailing personality trait. Therefore, in this study the five factor model initially used by Costa and McCrae (1992) and John and Srivastava (1999) and its shortest version (Konstabel et al., 2012) was used in line with the main objective of the study. From the general framework of the study, intercultural competence is explained due to difference in big five traits accompanied by social intelligence and psychological adjustment.

2.5. Psychological adjustment

The concepts of adjustment, adaptation and acculturation have been extensively used to reflect attitudinal and emotional adjustments of students from different backgrounds to the host areas or universities and social integration of an individual into the social interaction of the new culture (Thomas & Althen, 1989). The notion of psychological adjustment is originally drawn from cross-cultural adaptation that has been explained in terms of psychological and sociocultural adjustment (Ward & Kennedy, 1999). According to Ward and Kennedy (1999), psychological adjustment is defined as the general feeling of welfare

and contentment that one can experience because of lessening of stress in the new eco-cultural context. Moreover, Rohner (2004) indicated that psychological adjustment is a state characterized by a sense of independence, positive self-esteem and self-adequacy, stability of emotional experiences, high emotional irresponsiveness, diminished hostility and aggression, and a positive worldview.

Actually university students studying in the new eco-cultural context are normally facing various intercultural challenges in terms of life style, food, accommodation, customs and practice, wearing style, language and communication, norms, and general physical environment (Cheng & Lee, 2023; Othman et al., 2014). Psychological adjustment is broadly affected by personality, life changes, coping style, social support, social capital, intercultural effectiveness (Ward & Kennedy, 1999). Furthermore, Cheng and Lee, (2023), explained that psychological adjustment contains cognitive, emotional and affective constructs. Other scholars also define psychological adjustment as a process of changing one's behaviour to attain a pleasant relationship with their atmosphere or surroundings (Sabir, 1999; Gul, 2001). It is an outcome of any change in the individual's behaviour which ultimately results in a new state of inward and outward harmony and equilibrium with external circumstances (Sabir, 1999).

While distinguishing forms of adjustment (i.e., psychological, socio-cultural and work adjustment), Aycan (1997) defines psychological adjustment in terms of maintaining mental and physical well-being. In this regard, prior finding revealed that university students psychological adjustment either at international or domestic level is interrelated with personality and psychological capital (Noor, 2017; Ward & Kennedy, 1999; Ward, Leong & Low, 2004), social intelligences (Hirai, Frazier,& Syed, 2015), intercultural competences, flexibility (Searle & Ward, 1990), internal locus of control, humour, coping style, and relationship satisfaction (Ward & Kennedy, 1999). Strengthening this, Aycan (1997)

indicates that psychological adjustment is associated with sojourner characteristics such as intercultural competence, cross-cultural experience, interpersonal skill/relational skills, cultural flexibility and extroversion personality.

Furthermore, Searle and Ward (1990) defined psychological adjustment as the overall psychological, emotional and affective state of wellbeing and life satisfaction. Psychological adjustment includes a range of changes related to beliefs, perceptions, values, ideologies, and attitudes while behavioural adjustment includes dressing, eating, talking, social interaction patterns, and language skills that the acculturative person depicts during the process of acculturation (Ward & Kennedy 1993). In this study, psychological adjustment is conceptualized as having three dimensions (i.e., cognitive adjustment, affective adjustment and behavioural/attitudinal adjustments) (Sabir, 1999, Ward & Kennedy, 1999). Cognitive adjustment refers to the capability of the students to engage in mental adjustment so that they are clever to focus on the main objective of being in the university. Affective adjustment indicates the ability of the students to regulate their emotional states so that they are able to stay composed although they are in the new cultural contexts. Behavioural adjustment reflects the ability of the students to act appropriately according to the socio-cultural requirements of the new environments. Richard (2004) posited that psychological adjustment refers to the interaction of an individual with his environment. He further indicated that the term psychological adjustment is often used to refer generally to harmony in the cognitive, affective, interpersonal, behavioural or attitudinal realm. Psychological adjustment reflects the psychological changes that university students go through in the adaptation process (Berry, 2005; Zhang & Goodson, 2011).

This implies that psychological adjustment is an important area of psychological functioning that researchers have been interested in examining for decades. In this regard, many of the past studies have investigated international students, immigrants and expatriates

by ignoring domestic university students' intercultural competence and psychological adjustment (Kelley, 2004; Noor, 2017; Othman, 2014).

2.6. Determinants of Intercultural competence

2.6.1. The influences of Social intelligence on Intercultural competence

The development of intercultural competence of emerging adults can be influenced by various factors, with social intelligence, personality traits, psychological adjustment, and demographic variables as the primary focus of this study. Research (e.g., Bosuwon, 2017; Breithaupt, 2017; Guntersdorfer & Golubeva, 2018) indicates that a higher level of social intelligence significantly enhances university students' intercultural competence, while lower levels contribute to reduced competence. Emmerling and Boyatzis (2012) also found that both social and emotional intelligence positively affect the development of intercultural competence in emerging adults.

Several studies (e.g., Ascalon, Schleicher & Born, 2006; Deardroff, 2011; Guntersdorfer & Golubeva, 2018) emphasize the importance of interpersonal skills in students' intercultural competence. Most of this research originates from Western individualistic cultural contexts, leaving the dynamics within collectivist cultures underexplored. Social intelligence encompasses various components, including communication skills, information processing abilities, and emotional regulation, all of which influence intercultural competence. For instance, Saberi (2012) demonstrated that college students' intercultural competence is directly linked to their social skills.

Further research in Thailand by Bosuwon (2016) found that undergraduate students' intercultural competence is significantly impacted by their communication competence and social intelligence. According to this study, social intelligence explained 42.8% of the

variance in intercultural competence, leaving 57.2% attributable to other factors. Aydogan and Akbarov (2014) corroborated this, showing that students with high social intelligence and communication skills exhibit greater intercultural competence, while those with lower levels display poorer competence.

Dong et al. (2008) reported a significant correlation between social intelligence and intercultural competence. Strengthening this perspective, Chocce, Johnson, and Yossatorn (2015) found that social intelligence and affective communication positively influence intercultural interactions. Thorndike (1920) highlighted social intelligence as a key factor in fostering intercultural competence. Thus, social intelligence has emerged as a critical area of focus in recent studies (Aydogan & Akbarov, 2014; Bosuwon, 2016; Chocce et al., 2015; Dong et al., 2008). In summary, the level of social intelligence among university students plays a substantial role in shaping their intercultural competence, reflected in enhanced intercultural knowledge, awareness, attitudes, and skills.

2.6.2. The Influences of Personality Traits on Intercultural Competence

In addition to the influence of social intelligence, personality traits significantly contribute to the development of intercultural competence among university students. Existing literature increasingly recognizes that personality traits serve as crucial predictors of students' intercultural competence. Studies by Chan and Sy (2016), Wang and Ching (2015), Janelle andTenzin (2017), and van der Zee and van Oudenhoven (2013) suggest that emerging adults' intercultural competence is highly correlated with their personality traits. Specifically, Chan and Sy (2016) found a positive correlation between intercultural competence and three personality subscales: agreeableness, openness, and conscientiousness. Students who score high in these traits tend to exhibit better intercultural interactions, confidence, and communication skills.

Similarly, Janelle and Tenzin (2017) confirmed that personality factors significantly predict students' intercultural competence. Wang and Ching (2015) reported positive correlations between all dimensions of intercultural competence (cognitive, affective, attitudinal, and skills) and personality factors, except for neuroticism, which was negatively correlated. Other studies (e.g., Bakalis & Joiner, 2004; Inside Higher Ed, 2013; Wood, 2013; Zimmermann & Neyer, 2013) have also indicated a positive association between personality factors and the development of intercultural competence, with neuroticism often showing a negative correlation.

Further research on business undergraduates revealed significant links between intercultural competence and personality traits, again excluding neuroticism (Ang, Dyne & Christine, 2005). Among the Big Five personality traits, openness was notably correlated with all aspects of intercultural competence. Many studies (e.g., Barrick & Mount, 1991; Caligiuri, 2000; MacDonald, 1998) have demonstrated that these traits consistently predict intercultural competence and effectiveness across various contexts, both domestically and abroad.

In Singapore, Ward et al (2004) found relationships between neuroticism and extraversion concerning students' intercultural adjustment, though the relationship between extraversion and intercultural adjustment was negative and non-significant. Over the past two decades, numerous scholars have explored the effect of personality on intercultural effectiveness (e.g., Aycan, 1997; Caligiuri et al., 2009; Mol et al., 2005; Shannon & Begley, 2008; Van Oudenhoven & Van der Zee, 2002), providing empirical evidence for the impact of personality traits on students' intercultural competence development. Notably, openness to experience has been consistently found to correlate positively with all dimensions of intercultural competence (Ang et al., 2007; Li, Mobley & Kelly, 2016; Moody, 2007).

Despite these findings, some studies present contradictory results. For example, Smith (2012) and Oolders et al. (2008) found that only openness to experience was significantly correlated with intercultural competence, while other personality traits showed weak relationships. Conversely, research by Ang et al. (2007) and Presbitero (2016) indicated that extraversion was the only personality trait significantly associated with students' intercultural competence. Li et al. (2016) reported positive relationships between both openness and agreeableness and the development of intercultural competence.

Overall, intercultural competence is shaped by personality traits, particularly the Big Five, which provide a stable framework for understanding how individuals feel, think, and behave (Earley & Ang, 2003; Ramalu, Rose, Uli & Samy, 2010). According to evolutionary psychology, behaviours have been learned and adapted over time across different contexts (Buss, 1991), suggesting that certain personality traits can predict intercultural competence. Therefore, investigating the role of personality factors in the development of intercultural competence among university students in Ethiopia is warranted.

In summary, the literature indicates a significant and positive relationship between personality traits and the intercultural competence of university students. While the extent of each trait's contribution varies across contexts and is influenced by various intrapersonal, interpersonal, and demographic factors, the overall impact of personality on intercultural competence is clear (e.g., Barrick & Mount, 1991; Caligiuri, 2000; Chan & Sy, 2016; van der Zee & van Oudenhoven, 2013).

2.6.3. Psychological adjustment and Intercultural competence

Much research has explored the role of psychological adjustment in our lives, particularly regarding its influence on intercultural competence. Numerous studies indicate a

significant positive relationship between psychological adjustment and a person's intercultural competence. For example, Lee and Chen (2000), Martinus (2018) and Hirai et al (2015) found that university students with better psychological adjustment encompassing cognitive, affective, and behavioural dimensions demonstrate greater intercultural competence. Michalski and Shackelford (2010) further noted that individuals who experience better psychological and socio-cultural adjustment engage in higher levels of intercultural interaction. This suggests that students with strong adaptive psychological adjustment can manage stress effectively, remain calm under pressure, and exhibit resilience, which enhances their intercultural competence (Lee & Chen, 2000; Martinus, 2018).

Additional research (Mesidor & Sly, 2016; Tuncel & Arıcıoğlu, 2017) supports a direct relationship between psychological adjustment and intercultural competence among university students. Hirai et al (2015) concluded that both psychological and socio-cultural adjustments are predictors of students' intercultural competence and social integration. Studies involving American university students (e.g., Lee, Koeske, & Sales, 2004; Yeh & Inose, 2003; Wang et al., 2012) further corroborate that those with better psychological adjustment also exhibit enhanced intercultural competence and effective communication skills.

A meta-analysis by Zhang and Goodson (2011) of 64 studies published between 1990 and 2009 identified key predictors of psychosocial adjustment in both undergraduate and graduate international students, including social support, communication skills, intercultural knowledge, acculturation, social interaction, self-efficacy, and personality. This suggests that students with strong psychological adjustment typically possess better intercultural competence, whereas those with lower adjustment tend to struggle in this area. Consistent findings from Hechanova-Alampay et al. (2002), Kaur and Pany (2018), Swagler and Ellis

(2003), and Ying and Han (2008) indicate a direct association between the psychological and socio-cultural adjustment of university students and their level of intercultural competence.

Weldon, Sykes and Tran (2012) emphasized that interculturally competent individuals not only maintain positive psychological adjustment but also achieve academically and communicate effectively. Earlier research, including studies by Ang et al. (2007), Huff, Song, and Gresch (2014), Lin, Chen, and Song (2012), Kaur and Pany (2018), and Rujiprak (2016), consistently found a positive relationship between psychological adjustment and intercultural competence.

The key insight from this body of empirical and theoretical literature is that psychological adjustment significantly predicts intercultural competence among university students. However, many of these studies focus on individualistic cultural contexts or international students. There is a notable gap regarding domestic university students, particularly in the Ethiopian context. The existing literature highlights various factors such as demographic profiles, socioeconomic status, and eco-cultural context that may influence the relationship between psychological adjustment and intercultural competence. Therefore, this study aims to investigate these essential factors in depth.

2.6.4. The Mediating Role of Psychological adjustment in the Relationship between Social intelligence, Personality Traits and Intercultural Competence

With regard to the mediating role of psychological adjustment in the relationship between independent and dependent variables of the study, it is mandatory to consider the assumptions of mediating variables. A mediating variable is a variable in which the independent variables cause the mediator which in turn causes the dependent variables of the

study (Mackinnon, 2008). On the other hand, Holmbeck (1997) assumes that a mediating variable is a variable that transmits the effect of independent variables to dependent variables.

In attempt to formulate direct and indirect effects of the mediating variable between the dependent and independent variables, Baron and Kenny (1986) and MacKinnon, Coxe and Baraldi (2014) have offered a general assumption that guides the mediation analysis: 1) independent variables must be significant predictors of the mediating variable, 2) the mediating variable has to explain the variance in the dependent variables, 3) the independent variables must be significant predictors of the dependent variable and 4) if the mediating variable is once included in the model, the independent variables no longer explain variance in the dependent variable.

In this regard, a number of empirical review of the literatures have consistently found that social intelligence (e.g., Bosuwon, 2017; Breithaupt, 2017; Deardroff, 2011; Guntersdorfer & Golubeva, 2018) and personality factors (e.g., Bakalis & Joiner, 2004; Chan & Sy, 2016; Janelle & Yangchen, 2017; Inside Higher Ed, 2013; van der Zee & van Oudenhoven, 2013; Wang & Ching, 2015; Wood, 2013; Zimmermann & Neyer, 2013) were a significant predictor of the emerging adult's intercultural competences. Moreover, enormous studies have shown that social intelligence (e.g., Campbell & Hansen, 2010; Nagra, 2014) and personality factors (e.g., Gebregergis et al., 2019; Judith, 1999; Wallander, 1995) have significant influence on university students' psychological adjustment. On top of this, studies indicate that students with better social intelligence maintained better psychological adjustment (Brown & Holloway, 2008; Ward & Kennedy, 1999). Furthermore, students with higher positive types of personality factors (such as agreeableness, openness, consciousness and extraversion) exhibit better psychosocial adjustments (Matsumoto et al., 2004; Poyrazli, Thukral, & Duru, 2010; Ying & Han, 2006).

Pertaining to the relationship between the mediating (Psychological adjustment) and outcome variables of the study (intercultural competence), various studies (e.g., Hirai et al., 2015; Huff et al., 2014; Tuncel & Arıcıoğlu, 2017) have reported that university students' psychological adjustment significantly influence their intercultural competence. Therefore, bearing in mind the reviewed empirical literature, it appears reasonable to hypothesize that psychological adjustment mediates the relationship between the predictor and outcome variables.

2.6.5. Gender Differences in Intercultural competence

Studies reveal that intercultural competence among college students is considerably impacted by gender disparities (Amanda et al., 2017; Chen & Hu, 2023). Matveev and Milter (2004) discovered, for example, that women are generally more perceptive of nonverbal cues and more flexible in a range of social contexts, which improves their capacity to interact with people from different cultural backgrounds. Female students often develop stronger relational skills and emotional awareness through socialization, enhancing their intercultural effectiveness (Cheng & Weng, 2019).

Other research indicates that females generally demonstrate higher levels of intercultural competence than males, attributed to their enhanced emotional intelligence, social capital, communication abilities, and greater adaptability and open-mindedness (Caruso & Meyer, 2017; Davis & Melchior, 2015; Eagly & Wood, 1999). This difference in communication styles underscores the need to consider gender when assessing intercultural competence in higher education, as it influences students' ability to succeed in diverse environments.

2.6.6. Linguistic skill difference in students' Intercultural competence

Linguistic skills play a crucial role in enhancing intercultural competence among college students (Chen & Starosta, 1996; Daniel & Jubert, 2016). Proficiency in multiple languages not only facilitates effective communication but also fosters deeper cultural understanding and empathy (Byram, 2008; Chao et al., 2011). Research has shown that language skills are associated with improved intercultural interactions, as they enable students to navigate diverse cultural contexts more effectively (Doherty, 2018; Jackson, 2019). For instance, multilingual individuals are often more adaptable and open-minded, traits that are essential for successful intercultural engagements. Furthermore, proficiency in a second language can lead to increased cultural awareness, as students gain insights into the nuances of different cultures (Baker, 2021).

Moreover, linguistic skills can enhance students' confidence in cross-cultural situations, allowing them to engage more readily with peers from diverse backgrounds (Huang, 2020). Recent studies emphasize the importance of integrating language education with intercultural training to develop well-rounded individuals capable of thriving in global contexts (Huang, 2020). Overall, linguistic competence serves as a foundational element that enriches college students' intercultural competence, enabling them to build meaningful relationships across cultures.

2.6.7. Cultural differences in Intercultural competence

Cultural skills vary significantly among university students, greatly influencing their intercultural competence. Those with a robust understanding of diverse cultural norms and practices are typically better equipped to navigate multicultural environments, leading to more effective communication and relationship-building (Deardorff, 2011; Gonzales, 2017). For instance, a study by Medina-López-Portillo (2020) found that students who were engaged

in intercultural training exhibited improved adaptability and reduced ethnocentrism, demonstrating the transformative potential of targeted cultural education.

Conversely, students with limited exposure to diverse cultures often face challenges in intercultural interactions, leading to misunderstandings and a lack of cultural sensitivity (Matsumoto & Hwang, 2013; Schwarzenthal, Schachner, Juang, & van de Vijver, 2020). This disparity highlights the critical need for higher education institutions to implement structured intercultural training programs that foster cultural skills and awareness among students. Furthermore, recent research emphasizes that simply increasing diversity on campuses is insufficient; intentional programming that encourages meaningful engagement with different cultures is essential for developing intercultural competence (Gibson, 2019). Ultimately, enhancing cultural skills is crucial for preparing students to thrive in an interconnected world, as those who can effectively navigate cultural differences are more likely to succeed in both academic and professional settings.

2.6.8. Parental level of education and students' Intercultural competence

Various studies have argued that parental education significantly influences the intercultural competence of university students (Deardorff, 2006; Hammer et al., 2003; Matsumoto, Yoo, & Nakagawa, 2001). Specifically, students from families with higher educational backgrounds tend to exhibit greater intercultural competence, attributed to the diverse perspectives and values that educated parents provide, which fosters open-mindedness and critical thinking (Baker, 2021). For example, O'Reilly and Sweeney (2019) found that students with educated parents were more likely to engage in intercultural activities and connect with peers from different backgrounds, enhancing their overall intercultural skills. In contrast, students from families with lower educational levels may lack similar opportunities for exposure to diverse cultures, hindering their ability to navigate

intercultural interactions effectively (Dumont & Thevenot, 2019). This disparity highlights the importance of parental involvement and education in shaping students' attitudes toward cultural diversity.

Moreover, recent findings suggest that educational initiatives aimed at parents could promote intercultural competence in their children (Wang & Holcombe, 2020). By recognizing the critical role of parental education, higher education institutions can design programs to support students from diverse backgrounds in developing their intercultural skills. However, some scholars (e.g. Göksu & Güvendir, 2022; Chen & Starosta, 2017) contend that parental education levels do not consistently serve as strong predictors of college students' effective intercultural interactions.

2.7. Current issues in Intercultural Competence in Higher Education

As globalization continues to advance, intercultural interaction and the influence of culture have become increasingly prominent in professional and educational settings worldwide. Intercultural competence is especially emphasized in universities, where it is linked to psychological adjustment, social intelligence, personality traits, academic performance, and career success. In our dynamic world, local experiences often involve interactions with individuals from diverse eco-cultural backgrounds. Through globalization and migration, our global community has transformed into an intercultural environment, highlighting the need to cultivate global citizens equipped with essential intercultural knowledge and skills. Scholars (e.g., Anteneh, 2012; Kenan & Mehmet, 2018; Kyung, 2015) have warned that lack of intercultural competence can lead to conflicts.

Similarly, researchers (e.g., Deardorff, 2011; Earley & Ang, 2003; Thomas & Inkson, 2004) argue that intercultural intelligence is crucial for bridging cultural divides and fostering multicultural relationships. This competence enhances understanding of how individual

contexts shape broader behavioural perspectives, contributing to success in international business, interpersonal relationships, and academic integrity, while minimizing misunderstandings among students from various backgrounds (Brian, 2019; Leung et al., 2014; Perry & Southwell, 2011).

In the era of globalization and cultural diversity, higher education institutions are crucial in fostering social integration and facilitating meaningful intercultural dialogue among students. Many universities in Western countries have adjusted their services to meet the rising demand for intercultural engagement (European Commission, 1999; Mercan, 2016). Over the last thirty years, these institutions have made significant progress in incorporating intercultural competence into their educational frameworks, emphasizing cross-cultural communication, human rights, and cultural studies (Köse, 2016).

The importance of intercultural competence and its psychological determinants is increasingly recognized as essential for fostering healthy, productive relationships and effective educational systems (Rubin et al., 2019; Sandage & Jankowski, 2013). As more students from diverse eco-cultural backgrounds enter higher education, institutions must demonstrate sensitivity to cultural differences and promote tolerance (Clark & Gorski, 2002; Johnson & Johnson, 2002). One effective approach for facilitating intercultural learning is to offer courses that cover major themes in cultural psychology and provide research-based training for the university community (Brian, 2019).

It is important to note that, a review of literature revealed multitude conceptualization of intercultural competence in the context of university students. In this regard, scholars explicitly explain five models that go with university students' intercultural competence experiences. For instance, the compositional model describes intercultural competence in terms of knowledge, skill and attitude characteristics (e.g., Deardorff, 2006; Griffith et al.,

2016; Hunter et al., 2006). Co-orientational model lean to explain intercultural competence in terms of its process of successful intercultural interaction in the context of higher education (e.g., Fantini, 2009; Griffith et al., 2016; Kupka, 2008; Rathje, 2007). The developmental model describes the intercultural competence of higher education students as a process of individual growth that occurs over time (King & Magolda, 2005). The adaptation models conceptualize university students' intercultural competence via combining the developmental components of the aformentioned models in an interactional context of adapting to others, domestic or international cultural spheres (e.g., Berry, Kim, Power, Young, & Bujaki, 1989; Gallois, Franklyn, Giles, & Coupland, 1988). The causal path models on the other hand, conceptualize intercultural competences through integrating the characteristics of compositional models and situating them in an interaction in which variables influences each other to predict intercultural competence of university students (Arasaratnam, 2008; Deardorff, 2006; Griffith & Harvey, 2000; Griffith et al., 2016).

Intercultural competence is influenced by several factors affecting both educators and students (Eisenberg et al., 2013). The Association of American Colleges and Universities (AACU) have recognized intercultural competence as a vital student learning outcome. Successful communication relies on knowledge and respect for cultural differences, as well as understanding their impact on interaction skills and behaviour (AACU, 2012). Lambert (1993) noted that students who understand their culture and others' differences are more likely to communicate effectively. Bennet (2009) further explained that intercultural competence encompasses cognitive, affective, and behavioural skills that facilitate appropriate interactions in diverse eco-cultural contexts.

Overall, intercultural interaction is a cornerstone of contemporary higher education for numerous reasons. According to several scholars (Chang, Astin, Maruyama & Moreno, as

cited in Anteneh, 2012), educational settings with cultural diversity improve students' socialization and interaction abilities, increase their overall satisfaction with college, and help minimize inter-ethnic conflicts. Varied experiences throughout university greatly influence graduates' capacity to lead ethnically integrated lives after they finish college. This means that the diverse interactions and opportunities students encounter during their time at university such as engaging with different cultures, participating in multicultural events, and forming friendships with peers from various backgrounds play a crucial role in shaping their perspectives and social skills. As a result, these experiences can enhance their ability to navigate and thrive in multicultural environments in their post-college lives. Studies (e.g., Villalpando, 2002; Gurin, 1999) have indicated that students exposed to diverse environments during their college years are more likely to enjoy better intercultural interactions after graduation.

2.8. Methodological Review of the study

In the realm of methodology, cross-cultural psychology is a well-established field that examines the relationship between culture and human behaviour (Berry et al., 2002; Kagitcibasi & Poortinga, 2000). Berry et al. (2002) identified three theoretical orientations within cross-cultural psychology: absolutism, relativism, and universalism.

The absolutist approach, sometimes referred to as imposed etic, posits that human behaviours are fundamentally the same across cultures. This perspective suggests that psychological theories, research methods, and instruments validated in one cultural context are equally applicable in others (Allwood & Berry, 2006; Misra & Gergen, 1993; Matsumoto & Yoo, 2006; Segall et al., 1998). From this viewpoint, culture plays a minimal role in shaping human characteristics, and standardized psychological instruments are employed for comparative evaluations.

Conversely, the relativist or emic perspective emphasizes an in-depth exploration of psychological phenomena within specific cultural contexts (Segall et al., 1998). This approach seeks to uncover indigenous meanings and does not prioritize cross-cultural comparisons or the use of ethnocentric concepts. Scholars (e.g., Allwood & Berry, 2006; Ho, Peng, Lai & Chan, 2001; Kim & Berry, 1993) highlight the primary goal of this perspective: to understand how individuals think, feel, and behave based on specific cultural values, beliefs, and methodologies.

To reconcile the extremes of absolutism and relativism, Kagitcibasi and Poortinga (2000) proposed the universalism orientation and cross-cultural psychology, also known as derived etic or integrationist. This approach asserts that fundamental human characteristics are shared across all cultures, while culture introduces variations on these underlying themes (Burman, 2007). It acknowledges that various cultural, biological, and psychological factors are interconnected with one's intercultural competence (cognitive, affective, attitudinal, and skill-based). In terms of assessment tools, this orientation advocates for the development and validation of measures that are culturally relevant (Kagitcibasi & Poortinga, 2000; Segall et al., 1998).

The study investigated the roles of social intelligence, personality factors, and psychological adjustment in university students' intercultural competence. Given the absence of locally standardized measures to assess these constructs within the Ethiopian context, the study adapted existing instruments developed in Western settings to align with local cultural nuances. Therefore, this research was guided by the universalism or derived etic approach, allowing for a comprehensive understanding of intercultural competence within the Ethiopian eco-cultural framework.

2.9. Theoretical Framework of the study

This study draws on various theoretical frameworks, emphasizing that human development is dynamic and shaped by multiple contexts. The on-going interactions between individuals and their influencing systems highlight their interdependence. Development is influenced by both direct interactions within each context and the indirect effects of distant systems. Additionally, individuals have a bidirectional relationship with each system, meaning they significantly influence how their environment affects them.

In this regard, there are different theories that explain university students' intercultural competence. For instance, communication theories explained intercultural competence from the perspective of uncertainty/anxiety reduction, understanding others' speech, gesture and behaviour, and one's attitude/ identity in the society (Galois et al., 1988; Gudykunst, 2005; Ting-Toomey, 1998). Social theories on the other hand understood intercultural competence from social relationship, actual behaviour and resources of values, intergroup behaviours and organizational social networks (Coleman, 1988; Granovetter, 1973; Hogg & Terry, 2000). Some also believe that essential sources of intercultural competence is attributed to internal changes value systems, communication and a person's potential to be effective in intercultural contexts (Kim's, 1995**;** Earley & Ang's, 2003). Others further assumed that important sources of intercultural competence can be individual's personality, family, social capital, and environmental systems (Berry et al., 2011; Bronfenbrenner, 1979; Deardorff's, 2011).

Although these theories analyse various skills and traits of intercultural competence, they do not directly identify its contributing factors; rather, they offer insights for a comprehensive empirical understanding of the concept. Given their relevance to the study variables, three theories; Deardorff's (2009) Causal Path Model, Ward et al.'s (2001) ABC

Model of Culture Shock, and Bronfenbrenner's (1979) Ecological theory were selected to serve as the theoretical framework of this study. Therefore, by combining the key concepts of these theories with previous empirical findings, the researcher examined how social intelligence, the Big Five personality traits, and psychological adjustment contribute to students' intercultural competence.

2.9.1. Causal Path Model

The Causal Path Model offers a framework for understanding the relationships between social intelligence, personality traits, and intercultural competence. It portrays intercultural competence as a linear system where various factors influence one another, often through moderating or mediating processes (Deardorff, 2009). This model highlights that intercultural competence can be developed through intrapersonal (e.g., identity, personality), interpersonal (e.g., social responsibility, social intelligence), and cultural factors (e.g., individualism vs. collectivism), as well as demographic conditions.

Ting-Toomey (1999) outlines the model through three sets of factors: antecedents (system, individual, and interpersonal levels), change processes (e.g., culture shock, identity change), and outcomes (system and personal identity). This suggests that change processes mediate the impact of antecedent factors. Deardorff (2009) emphasizes that developing intercultural understanding begins with recognizing and respecting other cultures, fostering motivation and adaptability, and suspending ethnocentric judgments.

Empirical support for the model, indicating that intercultural competence is shaped by factors such as cultural empathy, motivation, and prior experiences (Arasaratnam, 2008; Chen & Starosta, 2017). Research highlights the significance of affective, behavioural, and cognitive components in developing university students' intercultural competence. For

example, Chen and Portalla (2010) found that intercultural sensitivity is linked to engagement in interactions and respect for cultural differences.

While substantial evidence supports the role of social intelligence and personality in intercultural success in Western contexts, less is known about these dynamics among university students in Ethiopia. The interaction of culturally diverse individuals involves complex social and psychological processes, necessitating varied approaches to understanding intercultural phenomena. Mendenhall and Oddou (1985) emphasize the importance of interpersonal skills, psychological well-being, and acceptance of diverse values.

Overall, the Causal Path Model suggests that social intelligence, personality traits, and psychological adjustment significantly influence university students' intercultural competence, with psychological adjustment serving as a mediating variable. This study was explore how systemic (e.g., socioeconomic conditions), individual (e.g., personality traits), interpersonal (e.g., social intelligence), and change process factors (e.g., psychological adjustment) interconnect among themselves and relate to students' intercultural competence in Ethiopia.

2.9.2. A-B-C Model of culture Shock

The ABC model of cultural shock explains how emotional, behavioural, and cognitive responses interact to facilitate the development of intercultural competence in college students. By navigating their emotions, actively engaging with diverse cultures, and reflecting on their experiences, students enhance their ability to communicate and connect across cultural boundaries. This holistic process ultimately prepares them for success in an increasingly globalized world (Ward et al., 2001).

Ward and associates (Searle & Ward, 1990; Ward & Kennedy, 1992; Ward et al., 2001) assert that intercultural competence is significantly influenced by psychological (affective) and sociocultural (behavioural) adjustments). They emphasize that psychological adjustment is affected by life changes, personality traits, and social support. The model highlights that personal resources, self-efficacy, emotional resilience, and interpersonal skills are strong predictors of students' intercultural competence, drawing on Lazarus's (1991) cognitive appraisal theory, which suggests that emotional and social responses to stress depend on how individuals perceive situations.

Further, studies (e.g., Hofhuis, Van der Zee, & Otten, 2012) confirm that traits such as cultural empathy, open-mindedness, and social initiative enhance intercultural success during emerging adulthood. Carver and White (1994) also link personality differences to greater engagement in goal-directed efforts for intercultural adaptation.

The behavioural component of the ABC model pertains to cultural learning, highlighting that interpersonal communication rules vary across cultures (Ward et al., 2001; Wilson et al., 2013). This underscores that social capital and personality factors significantly impact intercultural competence. Research on international students has shown that social capital, emotional intelligence, and personality traits are key predictors of intercultural competence (Van Oudenhoven & Van der Zee, 2002).

The cognitive aspect of the ABC model relates to social identity theory (Tajfel & Turner, 1986), which suggests that intercultural competence is influenced by internal cognitive processes. Social identity theories emphasize the dynamic nature of identity construction across cultural contexts (Ward et al., 2001). While substantial research has explored intercultural sensitivity in immigrant and refugee groups, the experiences of university students in African countries, particularly Ethiopia, remain underexplored.

2.9.3. Ecological theory

The ecological theory posits that human behaviour is profoundly influenced by the interplay of multiple environmental systems, emphasizing that individuals are shaped by the contexts in which they operate. According to Bronfenbrenner (1979), behaviour is affected by various layers, including the microsystem (immediate settings such as family and school), mesosystem (interconnections between these microsystems), exosystem (external environments influencing individuals indirectly, such as community resources), macrosystem (broader cultural and societal norms), and individual factors. Major determinants of behaviour within this framework include the quality of interpersonal relationships, access to resources, and cultural values. Much of what individuals know is derived from their environmental resources, including parents, cultures, and social networks. For instance, supportive family dynamics can foster resilience and positive behaviour, while exposure to diverse cultural norms enhances adaptability and social intelligence.

Research indicates that higher social intelligence correlates with greater adaptability in intercultural interactions, allowing students to build meaningful relationships across cultural boundaries (Matsumoto, 2009). Additionally, psychological adjustment, which refers to the ability to cope effectively with one's environment, significantly influences intercultural competence. Students who are psychologically well adjusted are more likely to employ adaptive coping strategies when facing cultural challenges, thus enhancing their intercultural interactions (Berry, 1997). Supportive environments, such as strong peer networks and mentoring programs, further strengthen psychological adjustment and contribute to positive intercultural experiences. Students high in this trait are more likely to seek out diverse experiences, thereby enhancing their intercultural competence. Similarly, extraversion positively influences engagement in social situations, facilitating interactions that broaden cultural understanding (McCrae et al., 2000).

Moreover, the theory emphasizes the reciprocal nature of influence; individuals affect their environments through their actions and choices, creating a continuous feedback loop that shapes behaviour over time. This reciprocal interaction underscores that social intelligence, personality traits, and psychological adjustment not only impact intercultural competence but are also shaped by the environments in which students learn and interact.

Although these three theoretical frameworks differ in their specific assumptions, they all incorporate the following developmental tenets. These are; first, human growth is shaped by multiple layers of context, including family, peers, schools, and the community, all of which interact to influence intercultural experiences. Second, personal factors like psychological, biological, and demographic elements influence human development, shaping an individual's ability to interact effectively in diverse cultural contexts.

Additionally, these theories highlight the dynamic interaction between university students and their environments, indicating that experiences with diverse cultural tools, such as language skills, types of culture experienced and social norms influence their intercultural interactions. However, emerging adults actively participate in their intercultural interactions, with development being bidirectional: individuals influence their social environments, and these contexts also affect their development. This means that university students' intercultural competence varies based on personal, social, psychological, and environmental factors.

In conclusion, the fundamental tenets of these theories complement one another, providing a comprehensive framework for understanding university students' intercultural competence. By integrating insights from ecological theory with existing empirical evidence, the researcher explored how social intelligence, the Big Five personality traits, and psychological adjustment collectively influence the intercultural competence of university students.

2.10. Conceptual Framework of the Study

Intercultural competence is an encompassing construct that includes affective, behavioural, and cognitive components related to multicultural competence (Deardorff, 2006). It is considered essential for success in life, enabling individuals to achieve a holistic understanding of their own cultural identity and background (Martin & Nakayama, 2007, 2008). Past studies have identified significant associations between social intelligence, personality factors, and intercultural competence, highlighting the mediating role of psychological adjustment (Deardorff, 2006; Klein, & Kogan, 2014; Ward & Kennedy, 1999; Zhou, 2016).

This section draws implications from the reviewed literature concerning university students' intercultural competence and its associated factors. It is evident that intercultural competence is closely linked to social intelligence, personality traits, and psychological adjustment, all situated within eco-cultural contexts. Theoretical and empirical evidence suggests that university students' intercultural competence is intertwined with social capital, personality types, and psychological adjustment, as reflected in their affective, cognitive, and behavioural characteristics. Additionally, psychological adjustment plays a mediating role in the relationship between intercultural competence and both social intelligence and personality.

The underlying argument is that social intelligence, personality traits, and psychological adjustment predict university students' intercultural competence. The literature clearly indicates that these factors are significant predictors, with psychological adjustment notably mediating the relationship between social intelligence, personality traits, and intercultural competence. However, research on the roles of social intelligence, personality traits, and psychological adjustment in the context of Ethiopian university students is limited.

This gap highlights the need for further investigation into how these factors influence intercultural competence in Ethiopia. Additionally, existing literature does not adequately address the mediating role of psychological adjustment in the relationships among social intelligence, personality traits, and intercultural competence. Given the theoretical, empirical, and methodological support found in the literature, a conceptual model has been developed to guide the current study. This model illustrates the connections and directionality among the key variables. The path analysis model of this study is presented in Figure 1 below.

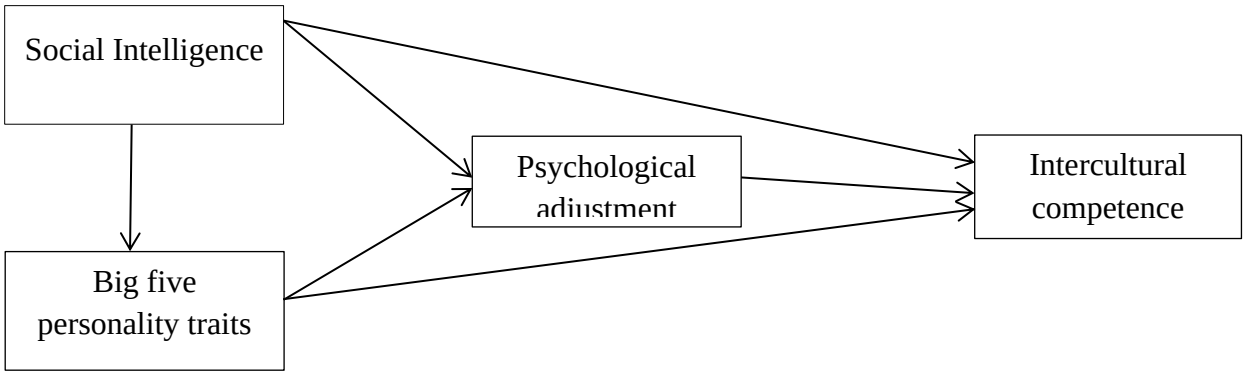


Figure 1. Conceptual Framework of the Study: The Path Analysis Model

Carrey (1998) explained that path coefficients can be represented in either unstandardized form, using original measurement scales, or in standardized form, derived from regression analysis with variables transformed to have a mean of 0 and a standard deviation of 1. Standardized path coefficients (β weights) describe the proportion of variance and the relationships between variables.

The figure illustrates that social intelligence and the Big Five traits directly affect intercultural competence, as indicated by straight arrows leading from these constructs to intercultural competence. The magnitude of this effect is measured by the standardized regression coefficients. Additionally, social intelligence and the Big Five traits have an indirect effect on intercultural competence. This indirect effect arises because they correlate with psychological adjustment, which in turn predicts intercultural competence. This

relationship is represented by pathways from social intelligence and the Big Five traits to psychological adjustment, and then from psychological adjustment to intercultural competence.

This indicates that psychological adjustment acts as both a dependent variable in relation to social intelligence and the Big Five traits, and as an independent variable influencing intercultural competence. Thus, psychological adjustment plays a mediational role in the relationship between intercultural competence and social intelligence, as well as the Big Five personality traits. In summary, social intelligence and the Big Five traits are independent variables that directly affect intercultural competence.

Chapter Three

3. Methodlogy

This chapter presents detailed descriptions of overall methods and procedures of the study. This covers study design, study site, target population, instruments of data collection and their validation, procedure of data collection, methods of data analysis and interpretation and ethical consideration.

3.1 Design of the Study

This study employed a quantitative approach. According to Creswell (2012), quantitative approach is a research approach in which researcher describes a research problem through an explanation of the relationship among variables, collect numerical data using measures and analyse the results via statistical analysis. Hence, correlational research design was employed. According to Creswell (2012), correlational research design is a predictive approach that permits the researcher to examine the extent to which two or more variables are associated.

Moreover, this type of research design allows the researcher to collect data at one point in time, analyse all participants as a single group and enables the researcher to control over variables using statistical procedure/control (Creswell, 2012). In this regard, many scholars (e.g., Babbie, 2011; Creswell, 2012; Singh, 2007) indicated that correlational research design is a descriptive survey in nature and enables the researcher to describe the situations and provide factual and accurate information of the population being studied. Others also indicate that correlational design is ideal in providing context, in dealing with many variables, and in establishing the total pattern of relationships (Brown & Hedges, 2009).

According to Creswell (2014), the design of a research must achieve valid results and, as such, correlational designs are appropriate for the measurement of scores and interpretation of relationships among variables. In this design there is no effort to manipulate/control the variables of the study, rather to describe the magnitude of relationship between variables. The purpose is to utilize independent variables as predictors to forecast the outcome variables. Therefore, in this study, social intelligence, personality traits and psychological adjustment are predictors of the outcome variable (i.e., intercultural competence).

3.2. **Setting of the study**

There are several ways in which university students in Africa, including those in Ethiopia, differ from their Western counterparts. One notable distinction is that the majority of African undergraduate university students live, earn, and eat on campus. This provides them with a unique platform for engaging in intercultural dialogues. According to the Federal Democratic Republic of Ethiopia (FDRE, 2003), the composition of Ethiopian university student populations is primarily heterogeneous in terms of service, ethnicity/race, language, sex, religion, culture, and other factors. Ethiopian higher education institutions are characterized by the inclusion of students from diverse backgrounds. This can characterize Ethiopian universities as a mosaic that encompasses different nations, nationalities, and peoples, as well as linguistic groups found in the country. The intercultural competences, including knowledge, awareness, attitude, and skills, of Ethiopian university students play a vital role in fostering coexistence and promoting peaceful teaching and learning processes. It is worth noting that Ethiopia currently has a total of 46 public universities.

Nevertheless, including all of these public universities as study sites would not be practical. Hence, the study site was purposively delimited to public universities in the Oromia

regional state. In fact, there are a number of reasons for selecting universities from the Oromia regional state. Firstly, universities in the Oromia region were selected due to the convenience of accessing data and the region's history as a relatively significant hub for intercultural conflicts. Secondly, since the Ethiopian Ministry of Education (MoE) randomly assigns students to universities across the country, one can assume that there is no significant difference in the composition of students between the targeted universities in the Oromia region and other universities in Ethiopia. Thirdly, over the past ten years, there have been several intercultural and inter-ethnic conflicts observed among university students in the Oromia region, as well as in other universities. This poses many questions that need to be investigated in relation to university students' intercultural competence and contributing factors.

Furthermore, the Oromia region is the prospective place of work for the researcher, and having strong university-to-university linkages, as well as a robust social network with the staff of the universities in the region, the researcher could access data smoothly. This direct and indirect insider experience gave the researcher the opportunity to have a good grasp of the issues being investigated. In contrast, the sample deliberately excluded the fifth generation among the 14 public universities in the Oromia region. This decision was made because of their low level of diversity in terms of department composition, staff, and limited experience in the teaching and learning process. As a result, four public universities in the region were randomly selected.

3.3. Population, Sample and Sampling Techniques

According to Goddard and Melville (2001), population of the study covers any group that contains the target group of the researcher‘s interest. Hence, the population of this study comprised students who are enrolled in public universities in the Oromia regional state. The researcher is interested in university students due to the widespread occurrence of inter-ethnic

and intercultural conflicts among this particular group. As a result, currently the Ethiopian federal government is forced to place federal police in each university across the country to safeguard peace and stability of the students, which is not expected to bring long lasting positive effects.

It is assumed that Ethiopian university students are diverse as they originate from various religions, ethnicities, languages, cultures, and geographical backgrounds found across all regions. In Oromia regional State, there are fourteen (14) public universities (i.e., Haramaya, Oda Bultum, Adama science and Technology, Arsi, Oromia Public state, Ambo, Selale, Bule Hora, Borena, Meda Walabu, Jima, Wollega, Dembi Dolo, and Metu). Indeed, these universities are classified into five generations based on the time they commenced their operations. As a result, four universities (namely Haramaya, Wollega, Bule Hora, and Ambo) were chosen through a simple random sampling technique from the remaining thirteen public universities, deliberately excluding Borena University because it is the only fifth-generation institution, lack proper organization, and does not yet have senior students and Oromia public state university. According to data from the registrar and alumni offices of the four targeted universities, there were 20,519 (M=12,346 & F=8173) students at Harama University, 18,458 (M=10,182 & F=8,276) at Ambo University, 17,698 (M=10737 & F=6,961) at Wollega University, and 14, 879 (M=8987 & F=5892) at Bule Hora University. By adding together the total number of students in the four selected universities yields a total population of 71,554 students.

Respondents were randomly selected from each university, employing stratified random sampling to ensure the inclusion of students from different colleges and departments across all four selected universities. Accordingly, based on the total number of regular students in the selected universities since 2021/22 academic year, sample size was

determined based on Krejcie and Morgan's (1970) sample size suggestions. When applying the formula the sample size is determined to be 384.

As a result, from Haramaya University, College of Education and Behavioural Studies, School of Law and College of Health and Medicine were selected randomly. From Bule Hora University, College of Social Science and Humanity and College of Informatics were represented in the sample. From Wollega University, College of Education and Behavioural Science and College of Business and Economics were randomly selected. From Ambo University College of Agriculture and Veterinary Medicine and College of Natural and Computational Science were selected. Subsequently, three departments were chosen at random from the selected colleges using lottery methods. Owing to the short duration of their stay in the university and limited experience in reporting on intercultural competence, first and second-year students were excluded. Participants from each department were then selected using stratified random sampling techniques. A stratified sample ensures that members from each group are represented in the sample, with consideration given to their departments, year level, and sex.

Though, taking into account the nonresponse rate and the belief that a larger sample size is preferable when utilizing factor analysis and structural equation modelling, data were gathered from 541 participants. Out of this, thirteen (13) respondents provided inappropriate responses to the questions and were subsequently excluded from the final data analysis. Therefore, the final data analysis was based on 528 participants who were randomly selected. Table 1 below depicts the population distribution of the study in terms of universities and sex and the sample drwan.

Table 1

Summary of the population distribution and sample drawn from each sampling frame.

Name of University		Target population			Sample drawn
		Male	Female	Total	
	CEBS	212	186	398	37
	College of Law	113	73	186	18
Haramaya University	College of Health and Medicine	334	294	628	59
	Sub-total	**659**	**553**	**1212**	**115**
Bule Hora University	College of Social Science & Humanity	287	232	519	49
	College of Informatics	421	335	756	71
	Sub-total	**708**	**567**	**1275**	**120**
Wollega University	College of Education & Behavioural Science	194	185	379	35
	College of Business & Economics	413	393	806	76
	Sub-total	**607**	**578**	**1185**	**111**
Ambo University	College of Agriculture & Veterinary Medicine	669	567	1,236	116
	College of Natural & Computational Science	457	388	845	79
	Sub-total	**1126**	**955**	**2, 081**	**195**
Grand-Total		**3, 100**	**2653**	**5,753**	**541**

3.4. Data Collection Instruments

In this study, five self-report measures (demographic questionnaire, intercultural competence, big five personality inventory, social intelligence, and psychological adjustment scale) were employed to collect data.

Socio-demographic Questionnaire: This consists of sets of items constructed to collect information related to participants' demographic information. The survey includes questions about the following aspects of the students' background: their gender (1 for male, 2 for female), age, ethnicity, parental level of education (ranging from 1 for no formal education to 7 for a master's degree or higher), family structure (1 for intact, 2 for non-intact), number of languages spoken (1 for monolingual, 2 for bilingual, and 3 for multilingual), and

their perception of the cultural environment they experienced before joining university (1 for monoculture, 2 for bicultural, and 3 for multicultural).

Intercultural competence: Participants' intercultural competence was measured using the most comprehensive and theoretically suitable multidimensional intercultural competence measuring scale developed by Fantini (2005). This scale is a 50-items self-report instrument aimed to measure adolescent and young adulthood's own and other's cultural knowledge, attitude towards intercultural sensitivity, intercultural awareness, and intercultural skills. Of these 50 items, 13 were designed to measure intercultural knowledge with a maximum possible score of 65 and minimum score of 0 (e.g., 'I can contrast important aspects of my culture with other Ethiopian culture'), 15 were intended to assess intercultural attitude with a maximum possible score of 75 and minimum score of 0 (e. g., 'I demonstrate flexibility when interacting with persons from other cultures'), 14 were created to gauge intercultural awareness with a maximum possible score of 70 and minimum score of 0 (e.g., 'While studying in the University, I realized the importance of how members of other cultures viewed me and why'), and eight were aimed at measuring intercultural skill with a maximum possible score of 40 and minimum score of 0 (e.g., I demonstrate willingness to interact with people from other ethnicities'). Each item of the scale is rated on a six-point scale ranging from 0 to 5 (0=not at all, 1= very poor, 2= poor, 3=satisfactory, 4=high and 5=very high).

The reliability of the original intercultural competence scale was 0.89 Cronbach's alpha coefficient, indicating high level of internal consistency. Furthermore, all intercultural competence subscales maintained acceptable level of reliability ranging from 0.80 to 0.97. The intercultural competence level of university students is determined by the average score of all participants, along with the distribution of scores above and below the mean (Fantini,

2005; 2009; Dreadoff, 2012), in which high scores reflect a high level of intercultural competence, while low scores indicate a low level of intercultural competence.

Social Intelligence Scale (SIS): Participants level of social intelligence was measured using Silvera et al.'s (2001) multidimensional social intelligence scale. This is a self-report instrument aimed to measure university students' social information processing (e.g., I can understand other peoples feeling), social skills (e.g., I fit easily in social situations.) and social awareness (e.g., I often feel uncertain around new people who I don't know). The scale consists of 21 items with five-point scale ranging from 5 to 1 (5=strongly agree, 4=agree, 3=uncertain, 2=disagree and 1= strongly disagree). For numerical analyses, 10 items are negatively keyed; they must be reverse scored. Originally, all the subscales of the social intelligence instrument have acceptable level of reliability (i.e., Social information processing/SIP=0.81, social skill/SS=0.86, and social awareness/SA= 0.79). The overall reliability of the scale was 0.85.

Participant's level of social intelligence is determined by the average score of all participants, along with the distribution of scores above and below the mean values in which high scores indicate a high level of social intelligence and low scores indicate a low level of social intelligence (Silvera et al., 2001). As various past researchers reported, Social Intelligence Scale (SIS) is considered suitable for university students, a period which is characterized by significant social changes (Davis, 2010; Lacanlale, 2013; Malik, Siddique & Hussain, 2018; Tayfun & Bayram, 2009). This indicates that university students experience both educational and social interactions, leading to multiple developments (Robert, Wyer, & Srull, 2013). Therefore, using this measure as predictor of university students' intercultural competence is theoretically and empirically sound.

Personality trait scale: Personality trait was measured using the short version of Konstabel et al.'s (2012) big five personality inventory scale. It is a 30-item instrument designed to assess one's personality traits. This instrument was chosen because of 1) its current dominant position in the field of psychology as the most comprehensive model of personality, 2) its stability and reliability in classifying personality traits, and 3) its persistence over time, and valid across language, age, gender, and cultural groups (Costa & McCrae, 1992; Konstabel et al., 2012). This scale conceptualized personality as having five broad dimensions; each item is rated on a 5- point scale (ranging from 1= Strongly Disagree to 5 = Strongly Agree) (Konstabel et al., 2012). The five dimensions are (i) *Openness* - an appreciation for and willingness to engage with new experience and ideas; (ii) *conscientiousness* - a tendency toward organization and thoughtfulness; (iii) *Extraversion* - an outward focused and tendency toward being outgoing; (iv) *Agreeableness* - a general attitude of compassion, caring, and cooperation with others, and (v) *Neuroticism* - implies inclination toward anxiety, moodiness, and preoccupation. Each factor of the scale has six (6) items with a maximum score of 30 and minimum score of 5. The internal consistency reliability of the original short version of the Big Five Personality Inventory scale falls within the range of 0.78 to 0.87 for all subscales, as measured by Cronbach's alpha coefficient.

To avoid possible response biases, some of the items were reversely worded. So, the score of the items in negatives statements was reversed before running the analysis. High score in each subscale indicates the predisposition of participants belongs to that personality types and there is a possibility that an individual may have more than 1 types of personality at a time. Given its strong internal consistency, cross-cultural and cross-linguistic validity, as well as its time and cost efficiency, the short version (30 items) of the Big Five Personality Inventory scale was adapted to the study context.

***Psychological Adjustment*:** Psychological adjustment was measured using Othman et al.'s (2014) short version multi-dimensional psychological adjustment scale. It is a 12-item scale designed to assess university students' psychological adjustment within the university context with a maximum possible score of 60 and minimum score of 12. The scale has three factors (e.g., 'I can continue living as usual in this new environment') measured cognitive adjustment, other four items (e.g., 'I hardly ever feel depressed living in this University') measured affective adjustment and four more items (e.g., 'I am able to involve in any activity that I like') assessed behavioural adjustment. These items are rated using a five-point Likert-type scale (ranging from 1 for strongly disagree to 5 for strongly agree).

The original Psychological Adjustment Scale displayed good internal consistency with an overall reliability coefficient of .83. Besides, each dimension of the scale exhibited good internal consistency (i.e., Cognitive= .81, Affective= .79 and Behavioural= .80) reliability coefficient. Each subscale has 4 items with a maximum score of 20 and minimum score of 4. Pooled score is computed for each subscale and high score indicates better psychological adjustment that lead to lower intercultural stress and low score below the mean values indicated lower level of psychological adjustment that lead to higher intercultural stress (Othman et al, 2014).

In sum, all of the above measures were adapted and appropriate modifications were made to ensure their validity within the specific eco-cultural context of the study.

3.5. Procedures

In this study, the researcher adhered to various procedures that are required when conducting a scientific study. These are described below:

3.5.1. Instrument Validation Procedures

The validity of a research instrument refers to the extent to which the instrument accurately measures what it intended to measure (Robson, 2011). Given that measures of intercultural competence, social intelligence, personality traits, and psychological adjustment were originally developed and validated in a different cultural context, they may not work in our eco-cultural context. Therefore, it is important to assess their validity in our specific context before translating them into the local language and using them.

Content validity is often recommended as a psychometric requirement of measurement adequacy (Lawshe, 1975). According to Creswell (2012), content validity is the degree to which the questions on the instrument and the score from these questions represent all possible questions that could be asked about the content and ensure the questions in the measures include adequate set of items that tap the concept. To assess content validity, Lawshe's (1975) minimum content validity ratio (CVR) estimation formula was employed. Lawshe suggested that a minimum CVR value of .75 is required for 8 expert judges. Lawshe also suggested that the overall content validity is assumed to be higher if the value of the CVR is closer to 1. In this approach, the panellists were invited to rate the items on a three-point scale (1 = not essential, 2 = useful but not essential, and 3 = essential). Lawshe's proposed formula for computing the content validity ratio (CVR) is expressed as

$$CVR = \frac{ne - N/2}{N/2}$$

Where, **ne**= no of experts who indicated that the item is essential, **N**= total number of panellists. Several scholars (e.g., Du Plessis & Hoole, 2006; Lawshe, 1975; Mishra & Panda, 2007) have indicated that the more experts over 50% perceive the item as 'essential', the greater the degree of its content validity.

To ensure the content validity of the original English version of the instrument, eight subject experts from diverse fields of study were identified and approached. These experts were two PhD students of applied social psychology, two PhD students of applied developmental psychology, one PhD student of Communication and Journalism, one PhD student in sociology from AAU, one PhD holder of applied social psychology and one PhD candidate of measurement and evaluation from Hawasa University. The researcher then sent the English versions of the instruments to the experts asking them to judge the relevance, clarity and cultural appropriateness of the items.

3.5.2. Results of the Content validity Ratings

To compute the content validity ratio (CVR), responses obtained from experts were assembled by counting the number of experts indicating 'essential' for each item. Then for each item of the measures content validity ratio (CVR) was calculated and evaluated based on Lawshe's (1975) recommendation. According to Lawshe's suggestion, with 8 experts, an item is considered valid and acceptable with a minimum of 0.75 CVR value at 0.05 level of significance. Following this suggestion, 113 items were subjected to the ratings of 8 experts. The experts were provided with concise descriptions of the study's objective and instructions on how to rate the items. Accordingly, only the items that satisfied the minimum CVR values were kept in the final tool while the remaining items were excluded (see Table 2 below).

Table 2

Summary of the Content validity Ratio (CVR) and CVI results of the instruments

S.N	Scales	No of items	No of experts involved	Ideal values	Items CVR	Scale's CVI	Decision
1	Intercultural Competence	50	8	>.75	45 items retained >.75 5 items score <.75	.92	45 items accepted
2	Big five Personality	30	8	>.75	All retained >.75	.93	All accepted
3	Social Intelligence	21	8	>.75	All retained >.75	.90	All accepted
4	Psychological adjustment	12	8	>.75	All retained >.75	.93	All accepted

As depicted in Table 2, content validity ratio was computed for each item via counting the responses obtained from the experts indicating 'essential.' According to the decision rule, all items of the measures were retained except five items (item numbers 5, 8, 21, 36, and 46) of the intercultural competence scale with CVR values below .75. Besides, all scales had content validity index (CVI) higher than the minimum recommended by Lawshe. In sum, out of the 113 items, 108 (95.57%) were considered valid and suitable for the pilot study. That is, 5 items (4.43%) from the intercultural competence scale, which had lower CVR values than .75, were excluded from the pilot test.

On the other hand, in an effort to evaluate the clarity and cultural suitability of the measures, panellists were requested to indicate their opinion using the scale to determine whether the measures were clear or unclear, and culturally appropriate or inappropriate. Similarly, experts were requested to provide written feedback on the scales/items, focusing on areas that required further amendment, simplification, adequacy, rephrasing and if any adjustment were necessary in the sequence of items. The feedback provided by the panellists was thoroughly examined, and as a result, necessary adjustments and revisions were made to enhance the instructions, wording of items, removal of redundant items, arrangement of items, and clarification of concepts so as to improve the quality of the measures. Once the five items were removed from the scales using Lawshe's CVR suggestion, and the required

modifications were done based on the feedback provided by the panellists, the remaining items underwent additional refinement (e.g., Item4, from psychological adjsument scale was revised from 'I am confident to perform my academic responsibilities in this country' , to 'I am confident to perform my academic responsibilities in this university'; item 5 was also revised from 'I am satisfied with the way I live my life in this country' to 'I am satisfied with the way I live my life in this university') to improve its conceptual clarity for respondents of pilot testing. Subsequently, the original English versions of the scales were translated into the Amharic language for further validation.

3.5.3. Instrument Translation procedure

Previous research indicated that translating data collection tools from their original language into the target language has the potential to increase respondents' satisfaction and improve the quality of data obtained (Boaten, Neilands, Frongillo, Molgar-Quinonez & Young, 2018; Hambleton, 2005). Another rationale for translating the instrument from its original English version to Amharic language was based on the fact that the majority of study participants had a better understanding of and were more comfortable responding in Amharic than in English. The process of translating, adapting, and cross-culturally validating an instrument from its original version to another language necessitates meticulous planning and the implementation of comprehensive approaches (ITC, 2010; Tanzer, 2005; Terwee, Bot, & de Boer, 2007). Accordingly, based on the suggestion of several scholars (e.g., Beaton et al, 2018; Guillemin, Bombardier & Beaton, 1993; ITC, 2010) the following stages and procedures were carried out in the translation processes of the instrument from its original English version into Amharic version.

Forward Translation: Evidence affirmed that quality of the translators play a significant role in preserving the clarity, appropriateness, cross-cultural values, conceptual and literal equivalence of the instruments (Hambleton, 2005). Accordingly, instrument

translation was carried out by two translators who are fully proficient in both languages of interest (English and Amharic) and familiar with the cultures of the respective languages. In this regard, the forward translation was done by two independent experts (1 PhD student in literature and Linguistics and 1 PhD student in applied developmental psychology). Subsequent to this, comparison of the two forward translations (T1 & T2) in terms of semantic, idiomatic, conceptual, experiential equivalence, linguistic and contextual differences was made.

Synthesis I: Following the two independent forward translations from English language to Amharic language, with the mediating of the researcher, the two independent translators came together to compare the two forward translated versions of the scales and to make revision. Consequently, linguistic clarity (e.g. content, adequacy of sentences, word choice, style, and spacing suitability, information arrangement and instruction) and psychometric clarity of the forwarded instruments were assessed. In this regard, inconsistences between the first and the second translators (T1& T2) on 16- items were observed. Therefore, with a serious discussion made between T1 and T2 in the presence of the investigator consensus was reached and a single Amharic version of each instrument was retained and ready for backward translation.

Backward Translation: In the process of instrument translation and adaptation, back translation of the forwarded translated instrument is strongly recommended (Beaton et al, 2018; Hambleton, 2005; ITC, 2010). Literature also affirms that back-translation does not imply that an item must remain accurately identical to the original but rather it must maintain a conceptual equivalence (Oliveira & Bandeira, 2011; Sireci, Yang, Harter, & Ehrlich, 2006). Backward translation was made by a single independent bilingual expert (Amharic native speaker and Proficient in English, assistant professor in clinical psychology).

Synthesis II: In this phase, both forward and backward translated versions and the original English version of the instruments were compared and evaluated by the group of forward and backward translators with the facilitation of the investigator. During this process both forward and back translators came together and comparison of the backward translated measures with their original English versions was done. In this regard, the format, the sentence, phrases, grammatical structure, and conceptual equivalence were assessed. This assessment showed major disparities on 17 items and minor disparities on 6 items. Then, items that were judged to have no conceptual and semantic equivalence with their original versions were translated forward and backward afresh. Finally, following the careful evaluation and revision of the items meaning, language, instructions, sentences and all necessary alterations, the translated Amharic versions of the instruments were made ready for the next pilot and psychometric evaluation.

3.5.4. Pilot Testing of the Translated Scales

To examine the validity of the pre-final Amharic version of the scales, cognitive debriefing was done with 20 Amharic speakers of Ambo University students. The sample size for this cognitive debriefing pilot test was determined based on Beaton et al.'s (2018) suggestion that 10-40 individuals are enough for instrument translation pilot testing. Hence, respondents of the pilot tests were asked to rate the clarity of the items, instructions and response formats of the scales. They were also asked to offer their comments on making the language clearer and easier. As some scholars suggested, items, instruction and response format of the scale that are found to be unclear by at least 20% of the participants must be re-evaluated to make them easier to understand (e.g., Topf, 1986, Beaton et el., 2018). It has been agreed that the minimum inter-rater agreement among the sample was 80%.

Following this, five faculty of Ambo University (i.e., both forward and backward translators, researcher and two psychology department staff) were invited to make a thorough

inspection and examination of 20% of the items which were evaluated to be unclear by the pilot study participants. Finally, the unclear items, instructions and response formats of the scales were evaluated and modified by experts and were made ready for further psychometric tests.

3.6. Procedures and Results of the Pilot Study

The purpose of conducting a pilot study is to assess the feasibility of data collection tools, identify and address any issues with the instruments, and evaluate the reliability and validity of the measures. Besides, the pilot test helps researchers ensure that everyone in the sample comprehends the questions clearly and interprets them in the same way. . Furthermore, it enables researchers to check if any item in the survey make participants feel uncomfortable and assess the amount of time it takes to complete the survey. According to Du Plessis and Hoole (2006), pilot testing helps researchers to ensure whether the measures' directions, phrasing, and lengths are suitable to complete the questionnaire and determine the initial response rate. To ensure the instruments' validity, several steps were taken, including assessing internal consistency reliability, examining relationships between variables, evaluating factor structures, and conducting confirmatory factor analysis of the measures.

The pilot study was conducted at Ambo University. Participants of the pilot study were selected through stratified random sampling technique. The strata were colleges and participants were selected from College of Medicine and Health Science, Faculty of Business and Economics, Institute of Technology, College of Social Science and Humanity and Institute of Education and Behavioural Science. In order to select departments from each stratum (college), lottery method was employed by listing all departments in each college. Consequently, Pharmacy, and Nursing from College of Medicine and Health Science, Economics and Accounting and Finance from College of Business and Economics, General Linguistic, and Social Work from College of Social Science and Humanity, Mechanical

Engineering, and Computer Science from Institute of Technology, and Psychology, and Early Child Care and Education from Institute of Education and Behavioural Science were selected.

Due to the fact that first year students have relatively short experiences in campus life where intercultural competence skill is adapted all 1st year students were excluded from the study. On the other hand, all second year and above students from the above departments were selected using stratified random sampling technique. Accordingly, 550 (Male= 294 and F=256) students were selected in this pilot study. Nevertheless, 74 (13.45%) of the study participants (Male= 43 and Female 31) inaptly/wrongly responded to the items or did not return the questionnaire. More specifically, 39 students left some pages of the questionnaire incomplete. On the other hand, 16 participants rated several items more than once which made the responses useless whereas 19 students did not return the questionnaire at all. Hence, the pilot test analysis was made on 476 (Male=244 and F=232) participants accounting for about 86.55% of the intended study sample. The pilot study data collection instruments were administered with the support of 5 Ambo University Lecturers. In an attempt to ensure that the students clearly understand how to answer the questionnaire, orientation was given to the participants by the lecturers, who were supervised by the researcher.

3.6.1. Demographic Characteristics of the Pilot Test Participants

The mean age of the pilot study participants was 22.35 with standard deviation of 2.989. As shown in Table 3, the sample was drawn from five colleges: 156 (32.77%) from College of Medicine and Health Science, 119 (25%) from Institute of Technology, 114 (23.95%) from college of Business and Economics, 45(9.45%) from Institute of Education and Behavioural Science and 42 (8.82%) from College of Social Science and Humanity. While their ethnic composition is considered, majority of them (n = 189; 39.7%) belong to Oromo followed by Amhara (n = 157; 33%), Sidama (n = 30; 6.3%) and Tigre (n = 23; 4.8%). The remaining 77 (16.2%) participants belong to other ethnic groups. Regarding

religious affiliation, a larger proportion of the participants (n = 203; 42.6%) were Orthodox Christian followers followed by Protestant Christian and Muslim. Regarding mother tongue, Affan Oromo (37.4%) and Amharic (36.8%) were the two mother tongues for a large number of respondents. With regard to respondents' sociocultural environment they lived in before joining university, slightly greater number of them (35.5%) reported that they grew up in multicultural sociocultural composition, while 33.6% and 30.9% respondents lived in monocultural and bicultural environment. On the other hand, significantly greater number (79.4%) of respondents reported that they lived with both parents (intact) whereas only 98 (20.6%) of them reported that they lived with only one biological parent (either mother or father only) (non-intact) (See Table 3 below).

Table 3

Summary of the demographic characteristics of the Pilot Study Sample (N=476)

S.N	Variables	Character	Frequency (f)	Percent (%)
1	Sex	Male	244	51.3
		Female	232	48.7
2	Department	Pharmacy	73	15.34
		Nursing	83	17.44
		Mechanical engineering	51	10.71
		Computer science	68	14.28
		Economics	52	10.92
		Accounting & Finance	62	13.0
		General Linguistic	21	4.41
		Social Work	21	4.41
		Psychology	22	4.62
		Early Child Care & Education (ECCE)	23	4.83
3	Ethnicity	Oromo	189	39.7
		Amhara	157	33
		Tigre	23	4.8
		Sidama	30	6.3
		Others	77	16.2
4	Religion	Orthodox Christian	203	42.6
		Protestant Christian	186	39.1
		Muslim	74	15.5
		Wakefata	9	1.9
		Others	4	0.90
5	Mother Tongue	Affan Oromo	178	37.4
		Amharic	175	36.8
		Tigrigna	23	4.8
		Sidamigna	30	6.3
		Others	70	14.7
6	Socio-cultural Environment the Participants Lived in before joining University	Monocultural	160	33.6
		Bicultural	147	30.9
		Multicultural	169	35.5
7	Family structure	Intact	379	79.4
		Non-Intact	97	20.6

3.6.2. Results of the Preliminary Reliability Analyses

The internal consistency of the instruments was measured using Cronbach's Alpha. In generating meaning of Cronbach's alpha value George and Mallery (2003) recommended the following rules of thumb: $\alpha \geq .9$ is excellent, $.8 \leq \alpha \leq .89$ is good, $.7 \leq \alpha \leq .79$ is acceptable, $.6 \leq \alpha \leq .69$ is questionable, $.5 \leq \alpha \leq .59$ is poor, and $\alpha \leq .5$ is unacceptable. Cronbach alpha

values for each scale and their subscales before exploratory and Confirmatory factor analysis and final version of the scales were computed as shown in Table 4 below.

Table 4

Reliability Coefficients of the Scales before and after EFA and CFA

S.N	Variables	Subscale	Before running EFA & CFA		After EFA & CFA (Final version)	
			Cronbach alpha	No of items	Cronbach alpha	No of items
1	Intercultural Competence	Intercultural Knowledge	.809	11	.839	8
		Intercultural Attitude	.830	13	.844	10
		Intercultural Skills	.778	8	.816	5
		Intercultural Awareness	.829	13	.869	7
		Overall Scale	**.924**	**45**	**.931**	**30**
2	Social Intelligence	Information Processing	.788	7	.935	6
		Social Skill	.810	7	.845	6
		Social awareness	.833	7	.858	5
		Overall Scale	**.865**	**21**	**.897**	**17**
3	Psychological adjustment	Cognitive adjustment	.821	4	.839	4
		Affective Adjustment	.777	4	.784	4
		Behavioural adjustment	.768	4	.824	4
		Overall Scale	**.879**	**12**	**.924**	**12**
4	Big five Personality trait	Neuroticism	.825	6	.855	6
		Extraversion	.728	6	.792	4
		Openness	.725	6	.848	7
		Agreeableness	.689	6	.772	3
		Conscientiousness	.776	6	.839	6

As depicted in Table 4 above, the reliability coefficients for the intercultural competence subscales were good, ranging from $\alpha = 0.778$ to $\alpha = 0.830$. The internal consistency of the measure or scale as a whole was $\alpha = 0.924$, indicating excellent reliability for the intercultural competence scale. The social intelligence subscales having 7 items each similarly had good reliability coefficients ranging from $\alpha = 0.788$ to $\alpha = 0.833$. The internal consistency of the full scale having 21 items was $\alpha = 0.865$.

The internal consistency of psychological adjustment having 12 items with three subscales (4-items each) was also good and acceptable ranging from α=0.768 to =0.821. The reliability coefficient of the psychological adjustment scale was α=0.879, suggesting that the scale has good reliability. The big five personality subscales having six items each also have adequate level of internal consistency (i.e., Neuroticism {α= 0.825}, Extraversion {α= 0.728}, Openness {α= 0.725}, Agreeableness {α= 0.689} and Conscientiousness {α= 0.776}). As compared to the other subscales, agreeableness has relatively low internal consistency coefficient that has to be improved for the final data collection. Overall, the reliability coefficients of the instruments utilized in the final data collection are good and acceptable, exhibiting improved alpha values (See Table 4 above).

3.6.3. Results of Exploratory Factor Analysis (EFA)

For further refinement of the instruments utilized in the final data collection, exploratory factor analysis was conducted for the Amharic versions of intercultural competence, personality inventory, social intelligence and psychological adjustment scales. Prior to using factor analysis verifying whether or not the data are suitable for factor analysis was mandatory. These tests included Kaiser-Meyer Olkin (KMO) measure of sampling adequacy, Bartlett's test of Sphericity, multicollinearity/linearity, factorability of correlational matrix, and outliers among the case as indicated below.

Table 5.

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy/Bartlett's Test of Sphericity for the Amharic Version of the scales.

Scale	Kaiser-Meyer Olkin (KMO/MSA)	Bartlett's test of Sphericity (approx. Chi-square)	Df	Sig.
Intercultural competence	.906	7008.970	990	.000
Social intelligence	.877	10072.453	210	.000
Big five personality	.844	4094.781	435	.000
Psychological adjustments	.783	3161.305	66	.000

As depicted in Table 5 above, the computed Kaiser-Meyer-Olkin values for the Amharic version of intercultural competence, social intelligence, big five personality, and psychological adjustment were 0.906, 0.877, 0.844, and 0.783, respectively. These values are higher than the suggested threshold of 0.6 by Kaiser (1970, 1974). This confirms that the scales used in the study are suitable for factor analysis. Additionally, Bartlett's test of Sphericity yielded a statistically significant result ($p<0.001$), indicating that the variables in the analysis are correlated.

Multicollinearity: In this regard, Hiar et al. (2014) suggested that multicollinearity test of data could be checked via Variance Inflation Factor (VIF) and tolerance and the acceptable value of variance inflation Factor (VIF) being less than 5. Hence, the results of multicollinearity statistics for all constructs showed that the values of variance inflation factor (VIF) were all less than 5. Considering each construct, VIF for intercultural competence is 2.34, for neuroticism is 1.130, for extraversion is 1.586, for openness is 1.699, for agreeableness is 1.539, for conscientiousness is 1.520, for social intelligence is 1.488 and for psychological adjustment is 1.478, indicating that the mulitcollinearity assumption is tenable.

Outliers, Normality and Homoscedasticity: Normality was checked via inspecting the Normal Probability Plot (P-P) of the Standardised Residual. The result of the

p-p plot showed a straight diagonal line from bottom left to top right confirming that the data do not deviate from normality. Moreover, homoscedasticity was checked using a scatter plot and the result shows that the amount of distance from the line to the dot did not substantially increase as it moves up the line. The scatterplot also verified that the average distribution scores of the variables in the scales were approximately normal. The presence of outliers was also checked by inspecting the Mahalanobis distances comparing with critical chi-square value using the number of independent variables in the model. In this regard, Tabachnick and Fidell (2013) suggested that the critical values of Mahalanobis distance for 7 independent variables should not exceed 24.32. The inspection done provided a Mahalanobis distance of 24.59, which is just slightly above the critical value. However, because this is very close to the critical value, one can assume that there is no outlier in the data (Tabachnick & Fidell 2013; Pallant, 2010).

3.6.3.1 Results of EFA for the Amharic Version of the Intercultural Competence scale

The results of EFA for all the Amharic version of the scales were presented below;

Table 6 shows the total variance explained by the components of intercultural competence. As per Kaiser's criteria only factors with eigenvalues of 1.0 or more are retained for further investigation. Accordingly, without rotation and use of fixed factor number, 10 factors were identified with 55.275% of the total variance explained.

Table 6

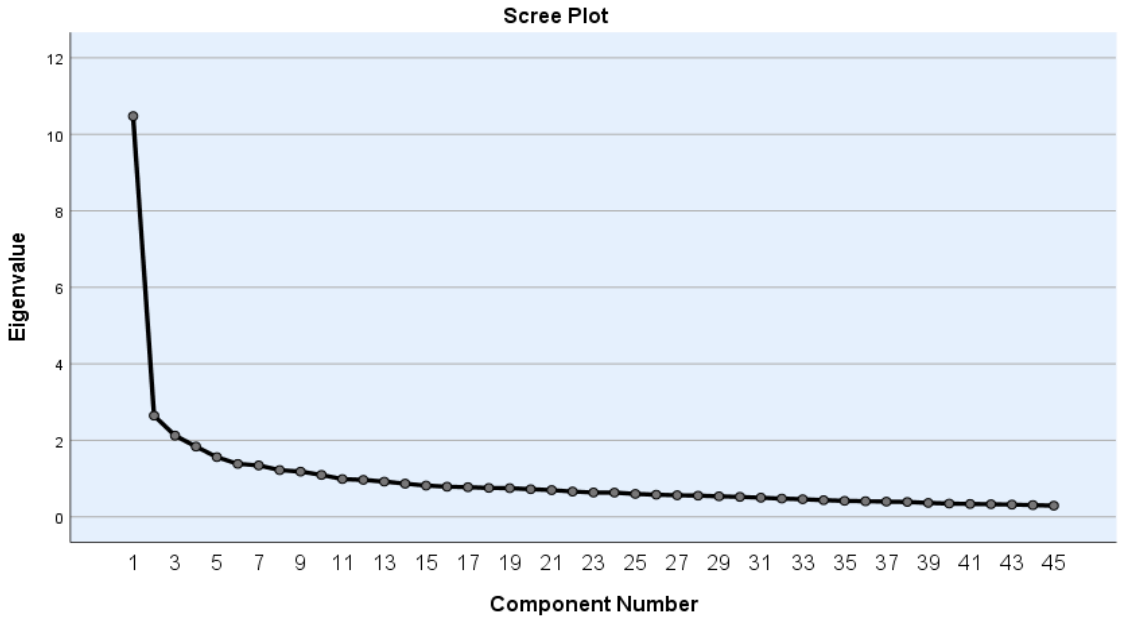
Total Variance Explained by Components of Intercultural competence (45-items)

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
Factors	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	10.475	23.277	23.277	10.475	23.277	23.277	8.042
2	2.646	5.880	29.157	2.646	5.880	29.157	6.600
3	2.124	4.720	33.877	2.124	4.720	33.877	6.996
4	1.837	4.083	37.959	1.837	4.083	37.959	2.039

Table 6 displays total variance explained by the components of intercultural competence. Additionally, communality for initial extraction was computed and was equal to

1.00. This implies that each variable is fully (1.00 or 100%) involved in the solution and there were no items with less than 1.00 extraction communality that could be candidates for removal from the analysis. To avoid over factoring, the scree plot test (Gorsuch, 1983) was further employed to examine the factor structures underlying the latent construct of intercultural competence. In this procedure, the turning point was observed at component 4 with transition points between components with high and low eigenvalues (see Figure 2)

Figure 2. Screeplot of Eigen values



To generate the Amharic version of the Intercultural Competence Scale, a Monte Carlo PCA for parallel analysis was conducted. This method compares actual eigenvalues with criterion values generated from a random data matrix. Factors are retained when the actual eigenvalue exceeds the criterion values and are rejected when it falls below them, with the additional condition that eigenvalues must be greater than 1. Based on this decision rule, four factors of the Amharic version of the Intercultural Competence Scale were retained as their actual eigenvalues surpassed the corresponding criterion values from both the scree test and the Monte Carlo PCA for parallel analysis (see Table 7 below).

Table 7

Comparison of Eigenvalues from PCA and criterion values from parallel analysis

Components	Actual Eigenvalues from PCA	Criterion Values from Parallel Analysis	Decision
1	**10.475**	**1.6484**	**Accepted**
2	**2.646**	**1.5799**	**Accepted**
3	**2.124**	**1.5267**	**Accepted**
4	**1.837**	**1.4815**	**Accepted**
5	1.392	1.4415	Rejected

Specifications for this Run: Date; 19/04/2022, Number of subjects; 238, Number of Variables= 45, Number of replications =100, and Percent = 95

Following the initial decision, further rotation was computed using a forced method to determine the number of components and their corresponding items, based on both the pattern and structure matrix of loading coefficients. The matrices for the Intercultural Competence Scale are included in appendex D. The principal component analysis with Oblimin rotation revealed ten components with eigenvalues exceeding 1 (see Table 8). To prevent over-factoring, both the scree plot and Monte Carlo PCA for parallel analysis were conducted, resulting in the retention of four factors (see Figure 3 and Table 7).

Consequently, a two-step iterative process was then employed, retaining 37 items of the Amharic version of the Intercultural Competence Scale with a four-factor structure. In the first step, six items (15, 20, 29, 30, 34, and 36) were removed due to low communality extraction (< .30), indicating poor fit with their respective components. This removal increased the total variance explained from 38% to 40%. In the second step, two items (28 and 44) were discarded for cross-loading on different factors, suggesting they did not differentiate between latent variables. This adjustment further increased the total variance explained to 41%.

The final scale retained 37 items organized into four factors for confirmatory factor analysis. Factor 1 (Intercultural Attitude) includes 14 items (24, 25, 23, 26, 18, 22, 19, 17, 21,

32, 27, 31, 16, and 35). Factor 2 (Intercultural Awareness) consists of eight items (39, 41, 42, 38, 37, 43, 40, and 45), with factor loadings ranging from .718 to .534. Factor 3 (Intercultural Knowledge) contains 10 items (3, 1, 7, 6, 9, 5, 4, 8, 2, and 33) with loadings from .693 to .447, while Factor 4 (Intercultural Skill) includes five items (13, 12, 11, 14, and 10) with loadings between .562 and .418.

Most items loaded consistently on their respective components; however, some items loaded on unintended factors. For instance, in the original instrument, items 31, 32, and 35 were intended to measure intercultural skills, while items 11, 12, and 13 were meant to assess intercultural knowledge. This discrepancy may stem from participants' interpretations or cultural and translation issues that led to these items being perceived as similar. Therefore, a critical review of the items in each factor is necessary to accurately measure the intercultural competence of participants in the final data collection. The rotated factor matrix for the Amharic version of the Intercultural Competence Scale is provided in the appenddex D.

3.6.3.2 Results of EFA for the Amharic Version of the big five personality scale

Table 8 below reveals the total variance explained by the factors of the Amharic version of the Big Five Personality Scale. Initially, without rotation and forced method of factor extraction eight (8) factors are identified with 58.16% of total variance explained. Additionally, communality for initial extraction was computed and was >.30. This implies that there is no item to be discarded from the analysis. To sidestep over factoring, the scree plot test (Gorsuch, 1983) was further employed (see Figure 4). The scree plot was examined, and a noticeable break was observed after the fifth component, leading to the decision to retain five components for further investigation.

Table 8

Total Variance Explained by Components of big five personality (30-items)

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6.032	20.107	20.107	6.032	20.107	20.107	4.218
2	3.343	11.144	31.251	3.343	11.144	31.251	3.328
3	2.009	6.696	37.946	2.009	6.696	37.946	4.307
4	1.624	5.413	43.360	1.624	5.413	43.360	3.704
5	1.431	4.102	47.462	1.231	4.102	47.462	1.638

Figure 3: Scree Plot for the Amharic Version of Big Five personality scale

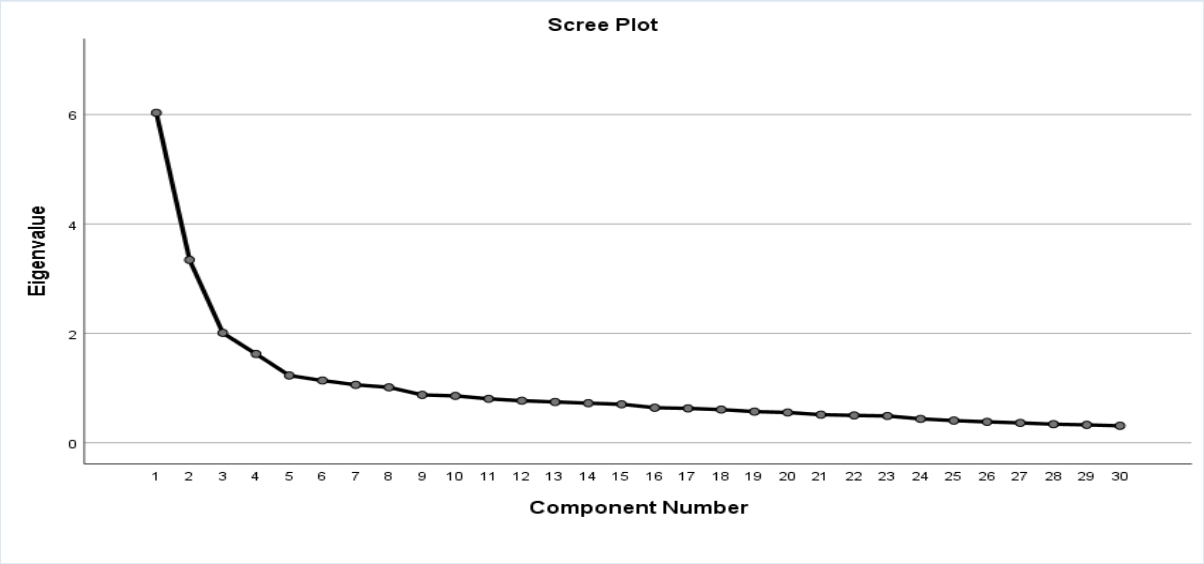


Figure 3 above shows the scree plot of eigenvalues for the initial component solution.

In order to determine the suitable components for the Amharic adaptation of the Big Five Personality Scale, a Monte Carlo PCA for Parallel analysis was performed. This analysis involved comparing the actual eigenvalues obtained from the data matrix with criterion values derived from a randomly generated data matrix (see Table 9 below).

Table 9

Comparison of Eigenvalues from PCA and criterion values from parallel analysis

Components	Actual Eigenvalues from PCA	Criterion Values from Parallel Analysis	Decision
1	**6.032**	**1.5001**	**Accepted**
2	**3.343**	**1.4331**	**Accepted**
3	**2.009**	**1.3844**	**Accepted**
4	**1.624**	**1.3385**	**Accepted**
5	**1.431**	**1.2977**	**Accepted**
6	1.138	1.2600	Rejected

Specifications for this Run: Date; 27/04/2022, Number of subjects; 238, Number of Variables= 30, Number of replications =100, and Percent = 95.

The results displayed in Table 9 reinforce the decision made based on the scree plot to retain only five factors for further investigation. These five factors exhibit eigenvalues that surpass the criterion values associated with a randomly generated data matrix. Due to the heterogeneous nature of the latent factors underlying personality traits, an exploratory factor analysis (EFA) was performed on the Amharic version of the Big Five Personality Scale using a maximum likelihood method with Varimax rotation.

Hence, further rotation was run using forced method through both pattern and structure matrixes of loading coefficient. The rotation solution revealed the presence of five structures with a number of strong loading and all items were substantially loading on only one factor. The five-factor solution explained a total of 47.462% of the variance, with factor1 (Extraversion) contributing 20.107%, factor 2 (Neuroticism) contributing 11.144%, Factor3 (Conscientiousness) contributing 6.696%, factor 4 (Openness) contributing 5.413% and factor 5 (Agreeableness) contributing 4.102%. Besides, all the items of the Amharic version were retained for the confirmatory factor analysis because they were adequately loaded on the five different factors.

Accordingly, factor 1 (Extraversion) includes items 9, 8, 11, 7, 13, 10 and 12, with a factor loading coefficient ranging from .550 to .697. Factor 2 (Neuroticism) includes items 4, 3, 2, 5, 1 and 6, with a factor loading ranging from.667 to.785. Factor3 (Conscientiousness) includes item 27, 28, 25, 29, 26, 24, and 30, with a factor loading ranging from.572 to.756.

Factor 4 (Openness) included item 20, 16, 18, 17, 19, 14, and 15, with a factor loading ranging from .536 to .673 while factor 5 (Agreeableness) included item 22, 23, and 21, with a factor loading ranging from .540 to .672.

Most of the items were consistently loaded onto the components they were primarily intended to measure. However, a few items were loaded together with other items to assess different components. For example, in the original version of the scale, items 19, 20, 21, 22, 23, and 24 were intended to measure agreeableness traits. Items 19, 20, and 24 deviated from their intended purpose of measuring agreeableness and instead were loaded with other items to assess openness and conscientiousness. On the other hand, items 21, 22, and 23 remained consistent in measuring agreeableness as originally intended. Similarly, item 13, originally designed to measure openness, underwent a change in the new version and is now loaded to measure extraversion. This suggests that the study participants may have misunderstood these items or because of eco-cultural differences, they may perceive them as similar to other factors. As a result, it is crucial to revise and refine the items in order to accurately measure personality traits in the final version of the data collection tools (See Appendix D).

3.6.3.3 Results of EFA for the Amharic Version of Social intelligence scale

For the validation of social intelligence scale again factor analysis was run. Prior to conducting factor analysis, all assumption of EFA has been checked and no violation of the assumptions was noted (see Table 6 above). Without rotation and fixed number of factors, four factors are identified with 72.747% of the total variance explained. However, with rotation the three components capturing 67.522% cumulative variance were retained. With the removal of 2 items (IP7 and SS1) which have low communality and loading factors (<0.3), the total explained variance improved to 74.309%. Components 1, 2 and 3 contributed 33.083%, 21.565% and 19.661% of the common variance with total Eigen values of 6.286%, 4.097% and 3.736% respectively (See Table 10 below).

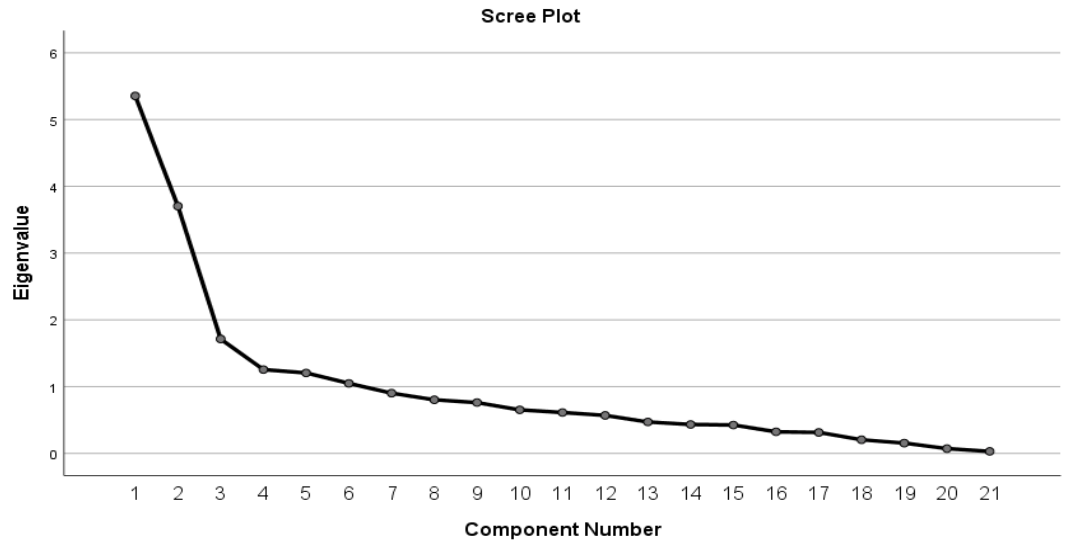
Table 10

Total Variance Explained by Components of Social Intelligence

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotated sum of squared loadings
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6.286	33.083	33.083	6.286	33.083	33.083	5.194
2	4.097	21.565	54.648	4.097	21.565	54.648	5.027
3	3.736	19.661	74.309	3.736	19.661	74.309	3.899

As displayed in Table10, the three factors include social information processing, social skill and social awareness. In order to avoid over factoring, the scree plot test was further employed and showed that three factors could be meaningfully extracted. In this regard, a three factor structure was evident as recommended by an elbow at the third factor in the scree plot (See Figure 4 below).

Figure 4: The Scree plot of the components of social intelligence



As one can easily understand from this figure, the turning point was observed at component three showing a transition point between components with high and low eigenvalues. Thus this plot confirmed the previous observation derived from the total variance explained in Table 10 above that three factors are best principal components of the

solution. For further confirmation, Monte Carlo PCA for Parallel that could compare the actual eigenvalues with its corresponding criterion values was done as displayed in Table 11 below.

Table 11

Comparison of Eigenvalues from PCA and criterion values from parallel analysis

Components	Actual Eigenvalues from PCA	Criterion Values from Parallel Analysis	Decision
1	**6.286**	**1.394**	**Accepted**
2	**4.097**	**1.324**	**Accepted**
3	**3.736**	**1.272**	**Accepted**
4	.965	1.227	Rejected

Specifications for this Run: Date; 05/05/2022, Number of subjects; 238, Number of Variables= 21, Number of replications =100, and Percent = 95.

As shown in Table 11, the results of parallel analysis support the decision from the scree plot to retain only three factors for further investigation with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix.

As a result, the final rotated solution revealed a one-step effective iterative social intelligence scale consisting of 19 items with three components. Two items (IP7 and SS1) were removed due to their low communality and loading factors (<.3). Accordingly, Factor 1 (*Social Information Processing*) includes items IP1, IP4, IP2, IP6, IP5, and IP3 with factor loading coefficients ranging from .968 to .839. Factor 2 (*Social skill*) comprises items SS2.SS6, SS7, SS4, SS5 and SS3 with factor loading coefficients ranging from .965 to .85. Factor 3 (*Social attitude*) contained items SA7, SA6, SA2, SA3, SA4, SA5 and SA1 with factor loading coefficients ranging from.831 to .611. All items were consistently loaded with acceptable loading factor in their respective components confirming the relevance of the observed variables in measuring the social intelligence construct. However, two items (IP7 and SS1) were removed due to their low communality and low loading factors (<.30). Hence,

excluding the two items from the construct, all the items were considered in the confirmatory factor analysis for further verification (See Appendix D).

3.6.3.4. Results of EFA for the Amharic Version of the psychological adjustment scale

Prior to conducting factor analysis on the Amharic version of the psychological adjustment scale, all assumptions of EFA were examined. The examination revealed that there were no violations of the assumptions, as indicated in Table 5, p-77). This confirms that the scale is suitable for factor analysis.

Table 12

Total Variance Explained by factors of psychological adjustment scale

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
Factors	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.406	36.721	36.721	4.406	36.721	36.721	3.753
2	2.232	18.602	55.322	2.232	18.602	55.322	2.241
3	1.153	8.369	63.691	1.004	8.369	63.691	3.618

Looking into the total variance explained, the three extracted psychological adjustment factors contributed 63.69% of the total variance. Factors 1, 2, and 3 contributed 36.7 %, 18.6% and 8.36% of the common variance with Eigen values of 4.4, 2.2 and 1.1 respectively. These three factors include Cognitive, Affective and Behavioural adjustment. Likewise, the three-factor structure was evident as suggested by an elbow at the third factor in the scree plot (see Figure 5) and Comparison of Eigenvalues from PCA and criterion values from parallel analysis (see Table 13).

F***igure 5: The Scree plot of the components of psychological adjustment***

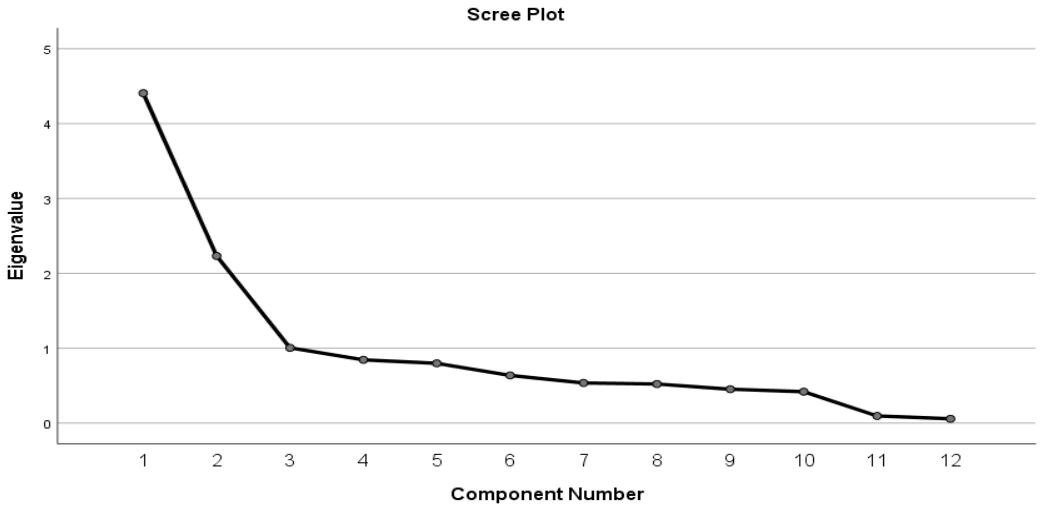


Table 13

Comparison of Eigenvalues from PCA and criterion values from parallel analysis

Components	Actual Eigenvalues from PCA	Criterion Values from Parallel Analysis	Decision
1	4.406	1.263	Accepted
2	2.232	1.196	Accepted
3	1.153	1.099	Accepted

As shown in Table 13 above, three factors with eigenvalues exceeding the corresponding criterion values were obtained supporting the scree plot.

The rotated results of the analysis showed that, similar to the original version, all the items in the Amharic version of the psychological adjustment scale were loaded onto three factors with loading coefficients ranging from .887 to .530. Factor 1 (cognitive adjustment) included items 1, 2, 3, and 5. Factor 2 (affective adjustment) consisted of items 6, 4, 7, and 8. Factor 3, representing behavioural adjustment, included items 10, 11, 9, and 12. These findings indicate that the items in the Amharic version of the scale align with the three factors identified in the original version.

Most of the items in the Amharic version of psychological adjustment scale were consistently loaded for the factors they were initially intended, while items 4 and 5 were loaded on different factor. In the original version of the scale, item 4 was intended to be

grouped with other items to assess cognitive adjustment, while item number 5 was designed to measure affective adjustment. However, in this new version, item 4 is now loaded with items that measure affective adjustment, while item number 5 is loaded with items that assess cognitive adjustment. Hence, participants may have misunderstood these items, or it could be due to cultural and language factors that have led to a composite perception of these items as interconnected factors. As a result, all the items related to psychological adjustment are included in the confirmatory factor analysis (CFA).

3.6.4. Results of the Confirmatory Factor Analysis

Following the EFA, confirmatory factor analysis (CFA) was run on the data collected from the second half sample (n= 238). The hypothesized model was assessed by AMOS version 26 maximum likelihood factor analysis. Based on the recommendation of scholars (e.g., Hair et al., 2006a; Tabachnick & Fidell, 2013), the model was evaluated through five fit measures including the chi square (CMIN), the adjusted goodness of fit (AGFI), the normed fit index (NFI), Comparative fit index (CFI) and the root mean square error of approximation (RMSEA). In this regard, conventional standard was suggested by scholars that CMIN/DF should be <5, AGFI, GFI, NFI and CFI should be >0.90, and RMSEA should be <0.08. According to Hair et al., (2006a), if 3 – 4 of the Goodness-of-Fit indices are within the threshold, then fitness of the entire model is regarded as acceptable. Furthermore, the basic assumptions of CFA were checked for each scale and were found to be tenable.

Table 14

The Model fit indices for the Original and the refined Intercultural competence scale (n=238)

S.N	*Fit indices**	*Initial model of IC scale (37-items)*	*Modified IC scale (30-items)*
1	*CMIN/DF*	*2.700*	*2.296*
2	*CMIN*	*1682.057*	*911.467*
3	*GFI*	*.831*	*.903*
4	*AGFI*	*.809*	*.899*
5	*CFI*	*.891*	*.916*
6	*NFI*	*823*	*897*
7	*RMSEA*	*.060*	*.052*
8	*DF*	*623*	*399*
9	*P*	*.000*	*.000*

*NB; * CMIN = Model Chi-Square, GFI= Goodness of Fit Index; AGFI= Adjusted Goodness of Fit Index, CFI = Comparative Fit Index; DF; Degree of freedom, RMSEA= Root Mean Square Error of Approximation*

As shown in Table 14, the fit indices of the initial intercultural competence scale were made with 37 items. In this initial model all except CMID/DF and RMSEA have values below the standard model fit criteria indicating the need for model modification. In order to improve the fitness of the data to the model, seven items (IC9, IC20, IC23, IC26, IC27, IC28 and IC31) having >2.58 standardized residual covariance with other items were excluded from the initial intercultural competence scale. The fit indices for the revised intercultural competence scale, consisting of 30 items, showed some improvement. The fit indices indicated an acceptable level of model fit, which made the scale suitable for use in the main study. Figure 6 below shows the refined confirmatory factor analysis for intercultural competence.

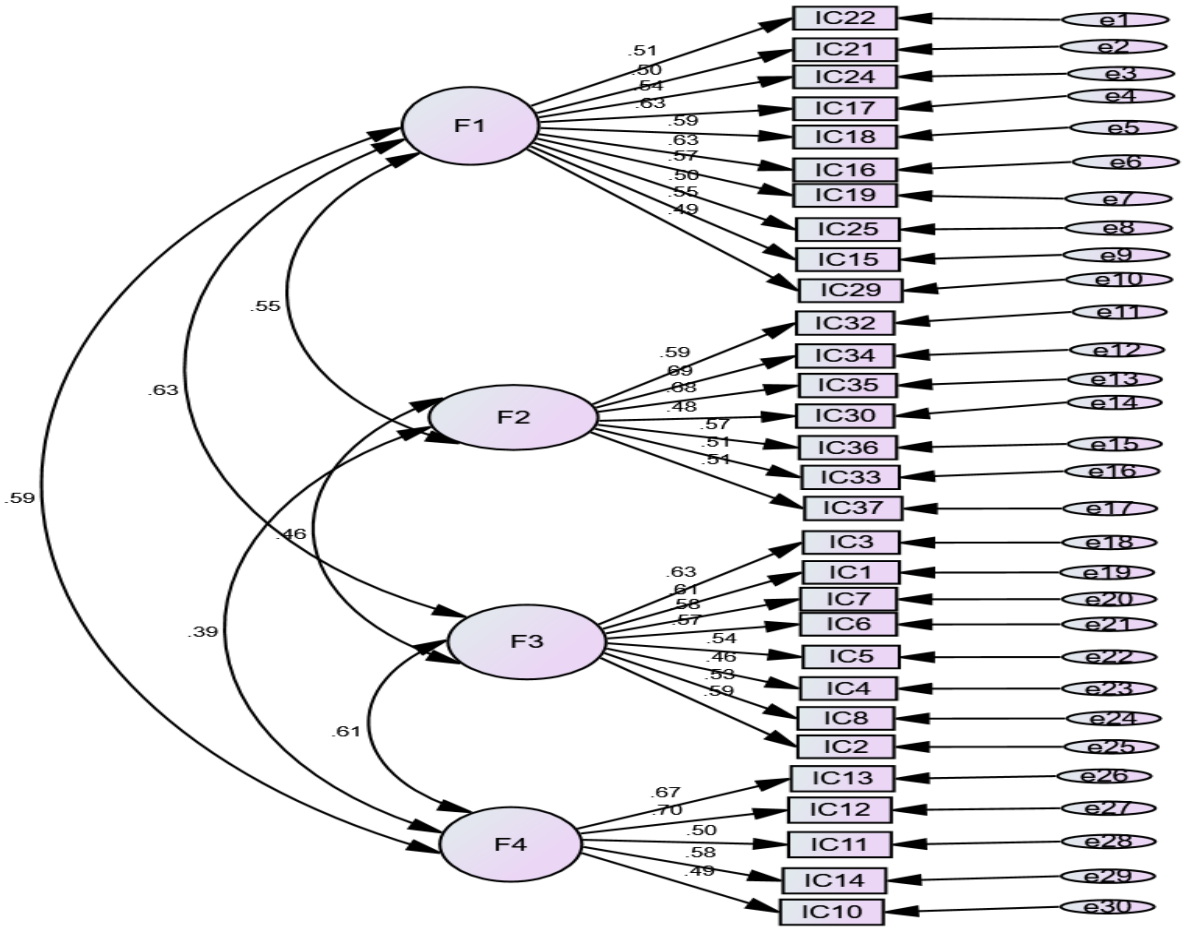


Figure 6. Model fit indices for the Amharic version of Intercultural competence scale

Table 15

The Model fit indices for the Original and refined Big five personality scale (n=238)

S.N	*Fit indices**	*Initial model of IC scale (30-items)*	*Modified IC scale (26-items)*
1	*CMIN/DF*	*2.486*	*2.237*
2	*CMIN*	*981.912*	*646.47*
3	*GFI*	*.883*	*.908*
4	*CFI*	*.881*	*.915*
5	*NFI*	*.896*	*.911*
6	*AGFI*	*.862*	*.90*
7	*RMSEA*	*.056*	*.051*
8	*DF*	*395*	*289*
9	*P*	*.000*	*.000*

NB; CMIN = CMIN = Model Chi-Square, GFI= Goodness of Fit Index; AGFI= Adjusted Goodness of Fit Index, CFI = comparative Fit Index; DF; Degree of freedom, RMSEA= Root Mean Square Error of Approximation

As displayed in Table 15, the initial CFA model for personality scale was made up of 30 items with χ^2 (CMIN) = 981.912, CMIN/DF=2.486, GFI= .883, AGFI=.862, CFI=.881 and RMSEA=.056. In this initial model all fit indices except CMIN/DF and RMSEA did not fulfil the model fit criteria. Thus, refinement of the model was required to bring the model indices to an acceptable level. Hence, four items (P7, P12, P13 and P29) with low factor loadings and having large standardized residual covariance (>2.58) with other items were deleted from the model. As a result, the adjusted model demonstrated a better fit with the data, and the fit indices reached an acceptable level. Consequently, the revised version of the Big Five Personality Scale, consisting of 26 items, was employed for the main study.

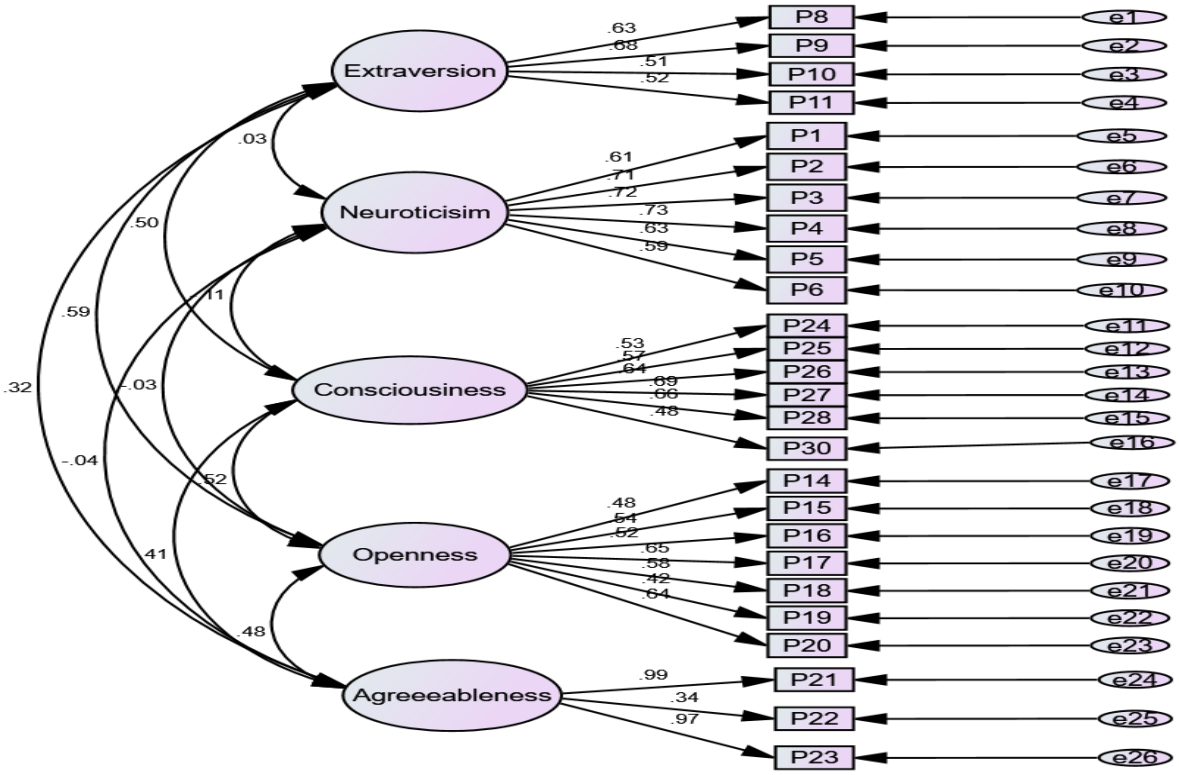


Figure 7. Model fit indices for the Amharic version of the Big Five Personality scale

Table 16

The Model fit indices for the Original and Modified Social Intelligence scale (n=238)

S.N	*Fit indices**	*Original Social Intelligence scale (19-items)*	*Modified Social Intelligence scale (17-items)*
1	*CMIN/DF*	*9.155*	*1.907*
2	*CMIN*	*1364.098*	*221.235*
3	*GFI*	*.828*	*.948*
4	*AGFI*	*.781*	*.932*
5	*CFI*	*.878*	*.988*
6	*NFI*	*.860*	*.974*
7	*RMSEA*	*.131*	*.044*
8	*DF*	*149*	*116*
9	*P*	*.000*	*.000*

NB; CMIN = Model Chi-Square, GFI= Goodness of Fit Index; AGFI= Adjusted Goodness of Fit Index, CFI = comparative Fit Index; DF; Degree of freedom, RMSEA= Root Mean Square Error of Approximation

As indicated in Table 16, the initial model of the CFA consisted of 19 items from the social intelligence scale. However, all the fit indices for this initial model were found to be below the recommended values. Consequently, it was necessary to modify the model based on the standardized residual covariance obtained from the AMOS outputs. According to Byrne (2010), if the standardized residual covariance exceeds 2.58, it can negatively affect the model's fit to the data. Hence, items that exhibited such high covariance need to be removed. Hence, two items (SA2 and SA6) were removed from the original social intelligence scale. As a result of removing these items, the refined and final model indices were observed to provide a better fit to the data. Figure 8 below presents the visual representation of the confirmatory factor analysis performed on the construct of Social Intelligence.

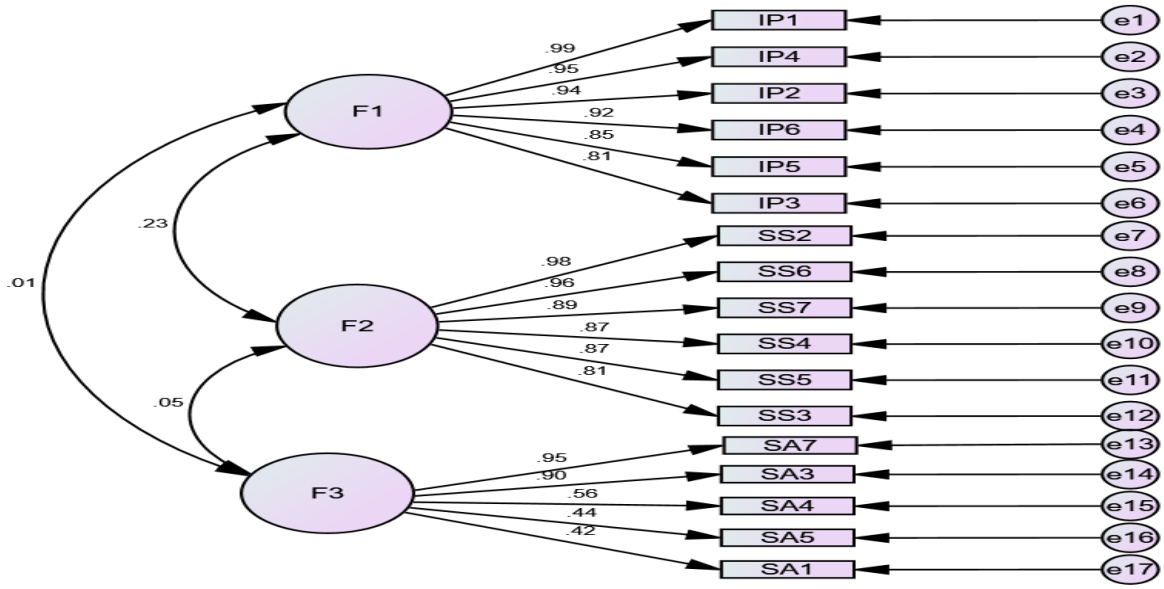


Figure 8. Model fit indices for the Amharic version of Social Intelligence Scale

Table 17

Model fit indices for the Original and refined Psychological adjustment scale (n=238)

S.N	*Fit indices**	*Original Social Intelligence scale (12-items)*	*Modified Social Intelligence scale (12-items)*
1	*CMIN/DF*	*5.172*	*2.590*
2	*CMIN*	*263.751*	*126.920*
3	*GFI*	*.911*	*.958*
4	*AGFI*	*.864*	*.933*
5	*CFI*	*.932*	*.975*
6	*NFI*	*.914*	*.960*
7	*RMSEA*	*.094*	*.058*
8	*DF*	*51*	*49*
9	*P*	*.000*	*.000*

NB; CMIN = Model Chi-Square, GFI= Goodness of Fit Index; AGFI= Adjusted Goodness of Fit Index, CFI = comparative Fit Index; DF; Degree of freedom, RMSEA= Root Mean Square Error of Approximation

As shown in Table 17, inspection of the fitness indices indicated that AGFI, CMIN/DF and RMSEA were found to be below the suggested values that demand model modification. Accordingly, two modification indexes suggesting that a path or coefficient from PsycA1 to PsycA2 and from PsycA7 to PsycA8 would improve the fit of the model. The modification was done by creating path between e3 and e4 as well as e7 and e8 (See

Figure 9 below). Following the path marks between these items, the result of the fit indices of the refined psychological adjustment scale was improved and the model fits the data well.

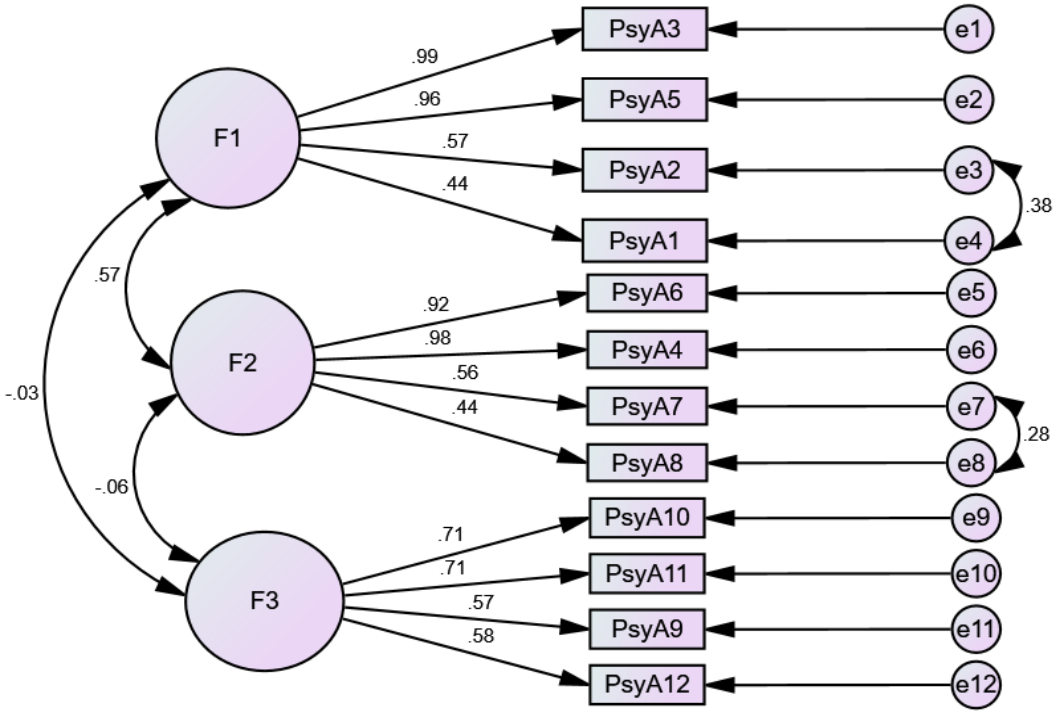


Figure 9. Model fit indices for the Amharic version of Psychological adjustment Scale

3.6.5. Convergent and Discriminant Validity

After confirming the dimensionality, reliability, and appropriateness of the scale, additional evaluations were conducted to examine its convergent and discriminant validity. Convergent validity was examined by comparing the values of composite reliability (CR) with average variance extracted (AVE). Alternatively, discriminant validity was evaluated by comparing the average variance extracted (AVE) to the maximum shared squared variances (MSV) and average shared squared variance (ASV) values. Additionally, the square root of the average variance extracted for each subscale was compared to the correlation coefficients of other subscales to assess discriminant validity.

Table 18

CR, AVE, MSV, ASV, square root of AVE and the correlation between the four intercultural competence subscales- Amharic version (n=238)

ICC subscales	CR	AVE	MSV	ASV	Attitude	Awareness	Knowledge	Skill
Attitude	.8744	.665	.356	.276	**.815**			
Awareness	.8458	.603	.432	.312	.511**	**.777**		
Knowledge	.8794	.659	.353	.176	.597**	.467**	**.812**	
Skill	.7310	.693	.261	.208	.651**	.594**	.529**	**.832**

Note. *CR = composite reliability; AVE = average variance extracted; MSV = maximum shared squared variance; ASV = average shared square variance*

As displayed in Table 18, the values of CR and AVE for all factors of intercultural competence were ≥ .731and ≥.603, respectively.Besides, all the values for composite reliability and average variance extracted surpass the respective thresholds of CR (>0.70) and AVE (>0.50). Specifically, the composite reliability (CR) for each subscale exceeded the values obtained for average variance extracted. This suggests that the scale demonstrates strong convergent validity, indicating that all the selected items assessing intercultural competence align well with the measurement of the associated construct in the Ethiopian context.

On the other hand, the data in Table 18 demonstrated strong evidence of discriminant validity. Specifically, the average variance extracted (AVE) values for all the intercultural competence subscales were higher than both the maximum shared squared variance (MSV) and average shared squared variance (ASV) values. Additionally, the square root of the AVE values for each subscale exceeded the correlation coefficients with other intercultural competence subscales. This suggested that the sacle has robust discriminat validty.

Table 19

CR, AVE, MSV, ASV, square root of AVE and the correlation between Big five personality Subscales-Amharic Version (n=238)

Big five subscales	CR	AVE	MSV	ASV	1	2	3	4	5
1. Extraversion	0.823	0.635	.3100	.1480	**.797**				
2. Neuroticism	0.870	0.728	.0014	.0012	.057	**.853**			
3.Conscientiousness	0.844	0.665	.2350	.1950	.411**	-.060	**.815**		
4. Openness	0.812	0.621	.2090	.1050	.557**	-.006	.393**	**.788**	
5. Agreeableness	0.724	0.575	.1190	.1110	.330**	.038	.485**	**.**458**	**.743**

Note. *CR = composite reliability; AVE = average variance extracted; MSV = maximum shared squared variance; ASV = average shared square variance*

Table 19 presents the findings on the assessment of convergent and discriminant validity of the Amharic version of the Big Five Personality Scale. Regarding convergent validity, the average variance extracted (AVE) exceeds 0.5. Furthermore, it was observed that all composite reliability (CR) values for the five-factor model were above 0.7, surpassing the AVE values. These suggest that the Amharic version of the Big Five model exhibits strong convergent validity.

In terms of discriminant validity of the model, the AVE values for each of the Big Five factors were found to be greater than the values of maximum shared variance (MSV) and average shared variance (ASV). Likewise, the square root of the AVE for each factor in the five-factor model surpassed the correlation coefficients with other Big Five personality traits. This provides evidence of the model's robust discriminant validity (see table 19).

Table 20

CR, AVE, MSV, ASV, square root of AVE and the correlation between the three social intelligence subscales- Amharic version (n=238)

SI subscales	CR	AVE	MSV	ASV	SIP	SS	SA
Social information Processing (SIP)	.84	.83	.12	.09	**.91**		
Social skill (SS)	.89	.81	.21	.16	.34**	**.90**	
Social awareness (SA)	.73	.58	.21	.14	.27**	.46**	**.761**

Note. *CR = composite reliability; AVE = average variance extracted; MSV = maximum shared squared variance; ASV = average shared square variance*

As shown in Table 20, the computed values of composite reliability (CR) and the average variance extracted (AVE) for all the subscales of the Amharic version of social intelligence were ≥.73 and ≥ .58 respectively. These values indicate that the CR is consistently higher than the AVE for each construct, thereby supporting convergent validity.

Regarding discriminant validity, the result of the study revealed that the values of average variance extracted of each Amharic version social intelligence dimensions were found to be greater than both the values of maximum shared squared variance and average shared squared variance. Moreover, as shown in Table 20, the square root of the average variance extracted value of each Amharic version social intelligence subscale was higher than its correlation coefficients with other social intelligence dimensions. This verified that the scale has very good discriminant validity.

Table 21

CR, AVE, MSV, ASV, square root of AVE and the correlation between the three psychological adjustment subscales- Amharic version (n=238)

SI subscales	CR	AVE	MSV	ASV	CA	AA	BA
Cognitive Adjustment (CA)	.78	.68	.15	.10	**.82**		
Affective Adjustment (AA)	.74	.58	.14	.11	.24**	**.76**	
Behavioural Adjustment (BA)	.76	.56	.08	.06	.38**	.29**	**.75**

Note. *CR = composite reliability; AVE = average variance extracted; MSV = maximum shared squared variance; ASV = average shared square variance*

As depicted in Table 21, the calculated composite reliability (CR) and average variance extracted (AVE) values for all subscales of psychological adjustment were ≥.74 and were ≥.56, respectively. These results demonstrate that values of CR surpassed the values of AVE for each construct, providing support for the convergent validity of the Amharic version of the psychological adjustment measure.

With regard to discriminant validity, the findings indicated that the average variance extracted for each dimension of psychological adjustment was higher compared to both the maximum shared squared variance and the average shared squared variance. Further, as displayed in Table 21, the square root of the average variance extracted for each subscale of psychological adjustment was greater than its correlation coefficients with other dimensions of the scale. This observation serves as evidence that the Amharic version of psychological adjustment scale demonstrates excellent discriminant validity.

3. 7 .Implications of the Pilot Study

Numerous valuable insights and lessons were derived from the instrument validation process and the pilot study results, which were applied to the main study. The key reflections included the following.

Instrument Validation: To enhance the quality of the data collection tools, several steps were undertaken, including assessing content validity, translating instruments into Amharic, and conducting EFA, CFA, and reliability analyses. These steps provided crucial insights for the main study. Notably, the Amharic versions of the instruments were found to be valid and reliable, with necessary modifications, making them suitable for data collection in the Ethiopian context.

Another important lesson was the need to ensure content adequacy, appropriate factor structures, and fit indices, as well as convergent and discriminant validity. Refinements based on feedback improved the scales, ultimately making the measurement tools more user-friendly for the final study.

The preliminary findings indicated that the instruments used in the pilot study effectively assessed the intended constructs. However, refinements were necessary for the intercultural competence, social intelligence, and Big Five personality trait scales due to issues like cross-loading, low factor loading, inadequate fit index values, and lower reliability coefficients. Consequently, the language and wording of some scale items were refined in preparation for the final data collection.

In summary, the main study implemented revisions to improve item equivalence, clarify wording, eliminate poor items, and establish careful procedures for data administration and collection. The pilot study findings highlighted several important factors for the main study, including the need for sufficient training for data collectors, clear guidance for participants, allotting adequate time for completing questionnaires, and arranging a secure and suitable physical environment for data collection.

3.8. Challenges faced during the pilot study

During the process of instrument translation and pilot study data collection, the researcher faced several challenges. One of the major challenges was the lack of consistency in the translated items between the two independent translators (T_1 and T_2). To address this issue, the researcher invested a significant amount of time and effort with both translators to ensure that they agree on a single set of forward-translated items that could accurately capture the intended ideas.

The second encounter during the collection of pilot study data pertains to instances where students, specifically those who were not fluent in Amharic language, regularly sought help from the data collectors to clarify the meaning of particular items. The third significant challenge arose from the inconsistent class schedules and the absence of certain students from the classroom, making it difficult to find available time for providing orientation and gathering data.

Another challenge encountered by the researcher was the length of the questionnaires. The researcher noticed that some participants began to feel uncomfortable and bored during the completion process, with some showing signs of distress, such as frequently checking the time or flipping through the pages. This discomfort likely led to participants providing incomplete or inaccurate responses. In fact, approximately 74 respondents (13.45%) submitted inadequate or incomplete response, and these responses were excluded from the pilot study analysis.

3.9. Procedures of Data Collection

In this research, data were collected on two separate occasions. The first data collection was conducted to assess the validity of the instruments employed, while the second round of data collection was carried out for the purpose of the main study. To obtain permission and access to the study area from the relevant administrators, the researcher took the following steps. Firstly, the researcher obtained a support letter from the School of Psychology at Addis Ababa University. Secondly, the researcher contacted each selected university administrator and provided a detailed explanation of the study's purpose and objectives. Thirdly, with the assistance of the respective officials, the researcher approached the relevant departments and obtained the necessary support and information to gather primary data from the chosen students ensuring that the data collection process did not disrupt the students' class schedules.

Fourthly, prior to administering the questionnaires, informed verbal consent were obtained from all participants in the studyafter the participants were given a comprehensive explanation of the study's purpose and goals. The researcher emphasized the importance of maintaining the confidentiality of the information provided by the participants, and they were assured that they had the freedom to withdraw from the study at any point if they so wished.

Finally, a cover letter accompanying the final Amharic version of the questionnaire, explaining the study objectives and reassuring participants the confidentiality and anonymity of their responses were distributed to the participants. The distribution of the questionnaire took place during regular class time, with enumerators and the researcher closely overseeing the process. Once the participants finished completing the questionnaire within the designated time, the copies of the questionnaire were collected and carefully examined to ensure that they were properly completed and were ready for coding and subsequent data analysis.

3.10. Techniques of Data Analysis

In order to summarize the outcome and examine the relationship between the variables being studied, a combination of descriptive and inferential statistics was utilized. The following paragraphs provide an overview of the data analysis techniques employed.

Essential of data analysis: after completing the data collection process, all filled questionnaires were coded and entered into the Statistical Package for Social Sciences (SPSS) with AMOS, version 25. Several steps were taken to ensure data integrity, including screening and cleaning the data, as well as evaluating model assumptions. This process involved examining descriptive statistics for maximum and minimum values, identifying and addressing missing data and outliers.

To assess the assumptions of parametric tests, multiple tests were conducted, revealing no significant violations. The normality assumption was evaluated through skewness, kurtosis analysis and histogram shape. Multicollinearity was assessed using correlation coefficients, the variance inflation factor (VIF), and tolerance. A correlation coefficient (r_{xy}) ≥ 0.3 and VIF < 5 indicated no multicollinearity issues, which were confirmed by the results. Additionally, Levene's tests indicated that the homogeneity assumption was met.

Descriptive Statistics: Descriptive statistics summarized the basic variables in the study. Frequency distributions were calculated for demographic characteristics such as gender, university, type of culture the participant lived in, parental education level, family structure, and languages spoken. Measures of central tendency (mean and median) and variability (standard deviation) were used to assess the levels of intercultural competence, social intelligence, psychological adjustment, and personality profiles of participants.

Correlation Analysis: To analyse relationships among the variables, the Pearson product-moment correlation coefficient was calculated, evaluating the strength and direction of these relationships. Key assumptions of correlation, including the continuity of scales, linearity, normality of data, and absence of outliers, were verified prior to analysis.

Multivariate Analysis of Variance (MANOVA): The primary objective of MANOVA was to determine whether the dependent variables were influenced by one or more independent variables, either individually or collectively. MANOVA was employed to examine the impact of socio-demographic variables (i.e., sex, students' class year, perceived cultural background before university, family structure, number of languages spoken, and parental education levels) on the intercultural competence of university students. All

assumptions for MANOVA, including linearity, normality, multicollinearity, sample size, and absence of outliers, were thoroughly checked, with no violations observed.

Exploratory Factor Analysis (EFA): EFA was conducted to investigate the underlying factors related to the Amharic versions of intercultural competence, social intelligence, Big Five personality traits, and psychological adjustment. Maximum likelihood (ML) estimation was preferred for factor extraction due to its suitability for measures exhibiting multivariate normality. Oblimin rotation was used for the intercultural competence, social intelligence, and psychological adjustment scales, while Varimax rotation was chosen for the Big Five personality scale to facilitate interpretation of uncorrelated factors. The aim of factor rotation is to clarify relationships among factors and simplify item loadings.

Prior to EFA, assumptions were checked using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test for each construct. Results indicated statistical significance (KMO > .60, $p < .05$), confirming the data's suitability for factor analysis. Multicollinearity was assessed with VIF and tolerance, with VIF values below 5 suggesting no significant issues. An inter-item correlation matrix revealed several coefficients greater than 0.30, meeting EFA assumptions.

Confirmatory Factor Analysis (CFA): The purpose of CFA was to evaluate how well a pre-established factor model explained and fit the observed data. CFA allows researchers to assess the model-data fit through chi-square tests, fit indices, and significance tests for factor loadings. Prior to conducting CFA, data integrity was ensured and underlying assumptions were verified. Minimum and maximum scores were within limits, with no missing data. Normality and linearity were assessed through skewness and kurtosis values, as well as scatter plots, confirming no violations. Model fitting was performed using maximum

likelihood estimation, evaluated via chi-square goodness-of-fit tests (e.g., X^2/DF, GFI, AGFI, CFI, NFI, RMSEA).

Structural Equation Modelling (SEM): SEM was employed to assess the overall fit of the model and determine the contributions of predictor variables to total explained variance. SEM depicts, estimates, and examines theoretical networks of linear relationships among variables. Following Kline's (2010) five-step process- model specification, identification, parameter estimation, evaluation, and modification- SEM was used to evaluate the effects of social intelligence, Big Five personality traits, and psychological adjustment on intercultural competence, along with the mediating role of psychological adjustment. Regression weights identified which variables uniquely and jointly predicted intercultural competence.

Before conducting SEM path analysis, all relevant assumptions regarding sampling adequacy, measurement instruments, multivariate normality, and model fit indices were examined, with no violations noted. Model fitness was evaluated using chi-square goodness-of-fit tests, with criteria for acceptable values (CMIN/DF < 5, GFI, AGFI, CFI, NFI > .90, RMSEA < .08, and non-significant p-values > .05). Hair et al. (2014) indicated that if three to four fit indices meet these thresholds, the overall model fit is considered acceptable. Consequently, multiple fit indices were employed to assess the model's adequacy.

3.11. Ethical Considerations

Throughout the research process (beginning from data collection up to conclusion), the study adhered to established ethical principles and practices. This ensured the protection of participants' rights and well-being while gathering data and drawing conclusions. Hence, before data collection, a supportive written letter from the School of Psychology at AAU was

provided to the officials of the targeted university administration. Then, consent was obtained from these officials to access the student participants for the study. All the selected participants in the study were contacted and provided with a brief explanation of the study's purpose. They were then asked if they were willing to participate and their verbal informed consent was obtained. Furthermore, participants of the study were informed that they had the right to seek clarification by asking any questions if they were confused while completing the questionnaire. They were also informed that they had the right to discontinue their participation or withdraw from the study if they experienced any discomfort.

Additionally, respondents were instructed that it was not necessary to provide their names on the questionnaire. They were informed that there were no right or wrong answers and were encouraged to freely express their ideas and thoughts in response to the questionnaire. In sum, in this study, all potential ethical considerations (that is, informed consent, confidentiality, respecting view, beliefs etc.) were consistently upheld throughout the process of data collection, analysis, and conclusion.

Chapter four

4. Results of the study

This section begins with an overview and explanation of the demographic characteristics of the study participants. This is followed by the level of intercultural competence, social intelligence, psychological adjustment, and personality profile. Subsequently, the results of structural equation modelling (SEM) path analysis, meditational analysis, and individual and combined impacts of the independent variables to the dependent and multivariate analysis of variance were presented in relation to the objective of the study.

4.1. Demographic Characteristics of the Participants

Table 22

Demographic Characteristics of the Study Participants (n=528)

Variables	Categories	Frequencies	Percentages
Sex	Male	276	52.3
	Female	252	47.7
Family structure	Intact	387	73.3
	Non-intact	141	26.7
Class year/Batch/	Third	228	43.2
	Fourth	197	37.3
	Fifth	103	19.5
University	Ambo	189	35.8
	Bule Hora	117	22.2
	Haramaya	113	21.4
	Wollega	109	20.6
Perceived cultural environment the participants lived in before joining-university	Monoculture	55	10.4
	Bicultural	242	45.8
	Multicultural	231	43.8
Linguistic Profile	Monolingual	11	9.7
	Bilingual	293	55.49
	Multi-lingual	224	42.42
Father's level of education	No basic education	128	24.2
	Primary education	117	22.2
	Secondary education	94	17.8
	Certificate/Diploma	68	12.9
	First Degree	87	16.5
	Masters and above	34	6.4
Mother's level of education	No basic education	183	34.7
	Primary education	138	26.1
	Secondary education	99	18.8
	Certificate/Diploma	54	10.2
	First Degree	45	8.5
	Masters and above	9	1.7
Total		**528**	**100**

As depicted in Table 22, 52.3% of the total study participants were male whereas 47.7% were female. When it comes to their family structure, a significant proportion of the study participants (73.3%, n=387) reported that they lived with both of their biological parents. In terms of the participants' class year, 43.2% were third year students whereas 37.3% were fourth year and 19.5% were fifth year students.

Regarding the cultural exposure of participants prior to enrolling in university, it was found that 45.8% (n=242) of the study participants came from a bicultural background, 43.8% (n=231) from multicultural environment, while the remaining 10.4% (n=55) of the respondents had been exposed to a monoculture. In terms of their linguistic profile, the largest proportion (55.49%, n=293) of participants reported that they are fluent in two languages. A significant proportion (42.42%, n=224) of the students were proficient in more than two languages. The remaining 2.08% (n=11) of participants reported proficiency in only one language.

Regarding the level of education of the participants' parents, 24.2% (n=128) of the respondents indicated that their fathers had not received any formal education and 34.7% (n=183) of them reported that their mothers had not formal education at all. Besides whereas 64.2% (n=339) of the respondents' fathers had secondary education or below, 79.6% (n=420) of the respondents' mothers had secondary education or below. Furthermore, small proportion of the study participants reported that their fathers (6.4%) and mothers (1.7%) had attained a master's degree or higher, whereas the remaining participants indicated that their parents' level of education ranges from certificate to first degree.

4.2. Level of Intercultural Competence, Social Intelligence, Psychological adjustment and Personality profile

In order to examine participant's level of intercultural competence, social intelligence, psychological adjustment, and personality profile, mean score was used to classify and identify the number of cases that scored above or below the mean values. In this context, a low level refers to scores falling one SD below the mean, a moderate level corresponds to scores within the range of one SD below to one SD above the mean, and a high level indicates scores greater than one SD above the mean, as suggested by several scholars (e.g., Gregory, 2020; Kline, 2015; Urbina, 2014). Accordingly, Table 23 below presents participants' level of intercultural competence, social intelligence, psychological adjustment, and personality profiles using the mean score values as cut-off scores.

Table23

Level of Intercultural Competence, Social Intelligence, Psychological Adjustment, and personality profiles of university students (n=528)

Variable	**Level**	**Min**	**Max**	**Mean**	**SD**	**Freq.**	**%**	***F***	***P***
ICC	Low (60-87)	60	86	82.65	15.01	194	36.7	207.98	.000
	Moderate (88-124)	87	124	106.05	10.41	206	39.0		
	High (≥125)	124	140	126.51	11.93	128	24.3		
	Overall ICC	**60**	**140**	**105.85**	**18.90**	**528**	**100**		
SQ	Low(18-37)	18	37	32.56	8.62	203	38.5	164.94	.000
	Moderate(38-60)	38	60	49.04	6.57	195	36.9		
	High(61-80)	61	80	65.36	12.54	130	24.6		
	Overall all SQ	**18**	**80**	**49.04**	**11.02**	**528**	**100**		
PsycA	Low (19-36)	19	36	33.61	6.92	217	41.1	240.95	.000
	Moderate (37-53)	36	53	45.34	4.89	170	32.2		
	High (54-60	54	60	56.07	5.46	141	26.7		
	Overall Psych. A	**19**	**60**	**43.67**	**6.20**	**528**	**100**		
								t	***P***
Neuroticism	Low (≤15)	6	15	11.34	2.69	272	51.5	-34.89	.000
	High (≥16)	16	28	20.82	3.51	256	48.5		
	Overall	***6***	***28***	***15.94***	***5.67***	***528***	***100***		
Extraversion	Low (≤22)	4	15	12.37	2.50	263	49.81	-28.66	.000
	High (≥23)	16	20	17.45	1.36	265	50.19		
	Overall	***4***	***20***	***22.71***	***3.97***	***528***	***100***		
Openness	Low(≤22)	8	22	17.92	3.27	254	48.11	-30.04	.000
	High (≥23)	23	35	26.71	3.44	274	51.89		
	Overall	***8***	***35***	***22.22***	***5.52***	***528***	***100***		
Agreeableness	Low (<11)	3	11	9.14	1.80	250	47.35	-31.32	.000
	High (>)	12	15	13.14	1.07	278	52.65		
	Overall	***3***	***15***	***11.03***	***2.50***	***528***	***100***		
Conscientiousness	Low (≤23)	6	23	19.49	3.56	230	43.6	26.40	.000
	High (≥ 24)	24	30	26.28	1.81	298	56.4		
	Overall	***6***	***30***	***22.32***	***4.83***	***528***	***100***		

Note: *ICC-intercultural competence, SQ- social intelligence, PsycA- psychological adjustment, SD- standard deviation, Freq- frequency*

The mean score was used as a threshold to evaluate students' level of intercultural competency in a number of earlier studies (e.g., Bosuwon, 2017; Gizem & Soner, 2016; Anteneh, 2012). This study does admit, though, that using the mean score alone might not be an efficient way to differentiate between various levels. In order to determine whether there are statistically significant differences between cases below the mean, around the mean, and above the mean, it is therefore more meaningful to consider students' ICC levels with one SD

below the mean as low levels, within one SD above or below the mean as moderate levels, and one SD above the mean as high levels.

The findings thus indicated that 36.7% (n=194) of the participants fall one SD below the mean values, implying low level of ICC. In contrast, 24.3% (n=128) of students score were one SD above the mean, demonstrating high level of ICC. Furthermore, 39% of participants (n=206) had scores that were equal to the mean, which indicates a moderate level of intercultural competency. Additionally, the F-test results (F=207.98, P<.000) showed statistically significant differences in the mean scores across the three levels of intercultural competence. This indicated that majority of the university students had begun to develop the necessary knowledge, skills, and attitudes to engage effectively in cross-cultural settings, but still have room for growth and improvement to become highly competent in intercultural capability. .

Pertinent to level of social intelligence, the study showed that 38.5% (n=203) of the students had score one SD below the mean, implying low level of social intelligence. Conversely lowest proportion, 24.6% (n=130) of the participants score were fell one SD above the mean, implying high level of social intelligence, while, 36.9% (n=195) of the students had score around the mean values implying moderate level of social intelligence. Moreover, the result of F-test (F=164, P<.000) confirmed that there were statistically significant mean difference among the three level of social intelligence.

As shown in Table 23, of the total 528 participants, 26.7% (n = 141) scored one standard deviation above the mean, indicating a higher level of psychological adjustment. These individuals are better equipped to handle life's challenges, manage stress, adapt to changes, and maintain balance in difficult situations. In contrast, a significant proportion, 41.1% (n = 217), scored one standard deviation below the mean, reflecting a lower level of psychological adjustment. This suggests that these students struggle with adapting to

academic, social, and emotional pressures, or that the environment may not sufficiently support their adaptation. Meanwhile, 32.2% (n = 170) scored around the mean, indicating a moderate level of psychological adjustment. The F-test results (F = 164, p < .000) confirmed statistically significant differences in mean scores across the three levels of psychological adjustment. This implies that while a notable portion of university students can manage the typical stresses of daily life, they may still face challenges or distress at times.

In relation to personality profile, 48.5% (n=256) of participants scored above the mean on the neuroticism trait, while 51.5% (n=272) scored below the mean. The difference in mean neuroticism scores between the two groups was statistically significant (t= -34.89, p = .000 <0.05). Similarly, 50.19% (n=265) of the participants scored above the mean values in the extraversion trait, while a slightly lower proportion, 49.81% (n=263) fell below the mean values. The difference between the two groups were found to be statistically significant (t = -28.66 p =.000<0.05). The results also indicated that for the openness personality trait, 51.89% (n=274) of participants scored above the mean, whereas 48.11% (n=254) scored below the mean. This difference in mean openness scores was statistically significant (t=-30.04, p<0.05). In the agreeableness trait, 52.65 % (n=278) had scores higher than the mean value, while a considerable number of participants, accounting for 47.35% (n=250), fell below the mean value. There were statistically significant mean differences (t=-31.32, p=.000 < 0.05) between the two groups.

Furthermore, a significantly higher proportion of participants, accounting for 56.4% (n=298), were observed to possess a score exceeding the mean value in conscientiousness personality trait though, 43.6% (n=230) of the participants scored below the mean. The mean score between the two groups were found to be statistically significant (t= 26.40, P= .000 <0.05). The percentage score of the trait indicates a significant likelihood that an individual can possess high scores in two or three personality traits simultaneously. This indicates that

an individual can concurrently exhibit high levels of openness, conscientiousness and extraversion personality traits. In relation to this, some scholars have used the mean score as a benchmark for determining whether an individual's personality traits are categorized as high or low (Biglu et al., 2016; Chen, 2013).

Upon excluding overlapping personality traits and identifying a high score in one of the big five personality traits, relatively small proportion of the study participants 24.24% (n=128) were predominantly categorized based on the big five personality traits. This indicates that out of the 528 study participants, only 3.97% (n=21), 3.03% (n=16), 6.06% (n=32), 4.36% (n=23), and 6.82% (n=36) primarily displayed high levels of neuroticism, extraversion, openness, agreeableness, and conscientiousness personality traits, respectively. This confirms that a substantial portion of the remaining study participants had high scores in two or more personality traits concurrently.

4.3. The Relationship between the major variables of the study

The relationship between social intelligence, personality traits, psychological adjustment and intercultural competence and its subscales were examined using Pearson product-moment correlation. The results of the correlation analysis are summarized in Table 24 below.

Table 24 Interrelationships between the study variables (n=528)

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Social intelligence	-											
2. Neuroticism	-.254**	-										
3. Extraversion	.327**	.034	-									
4. Openness	.510**	-.016	.269**	-								
5. Agreeableness	.503**	-.017	.244**	.364**	-							
6. Conscientiousness	.444**	-.073	.252**	.633**	.277**	-						
7. Psychological adjustment	.762**	-.048	.328**	.492**	.645**	.452**	-					
8. ICC total	***.707****	***.006***	***.365****	***.664****	***.666****	***.557****	***.727****	-				
9. IC-attitude	.764**	-.059	.313**	.551**	.481**	.488**	.566**	.812**	-			
10. IC-Knowledge	.448**	.061	.286**	.361**	.437**	.317**	.531**	.752**	.495**	-		
11. IC-Awareness	.555**	-.002	.317**	.593**	.395**	.539**	.572**	.726**	.641**	457**	-	
12. IC-Skill	.534**	-.012	.260**	.369**	.494**	.294**	.461**	.694**	.501**	.460**	.413**	-

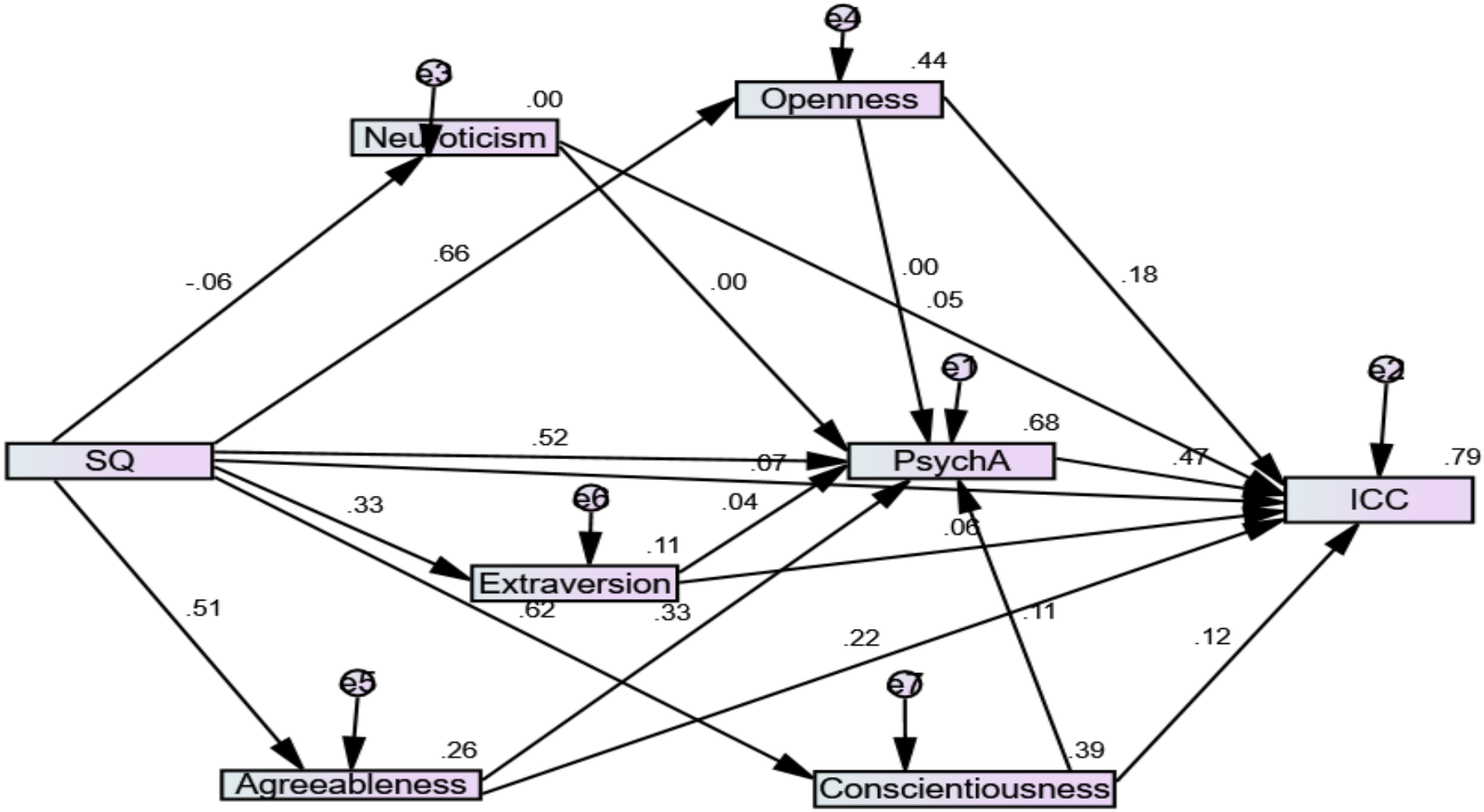
** $p < .01$

As the results presented in Table 24 indicate, intercultural competence was found to be positively and significantly correlated with social intelligence (r = .707), psychological adjustment (r = .762), extraversion (r = .365), Openness (r = .664), Agreeableness (r = .666), and conscientiousness (r = .557). However, there was no statistically significant relationship observed between intercultural competence and neuroticism personality traits. Similarly, social intelligence was positively and significantly correlated with psychological adjustment (r =.762), extraversion (r=.327), Openness(r=.510), agreeableness (r=.503) and conscientiousness (r=.444), but significantly and negatively associated with neuroticism personality trait (r = -.254). Psychological adjustment was found to be significantly and positively correlated with extraversion (r=.328), openness (r=.492), agreeableness (r=.645), and conscientiousness (r=.452), whereas, there is no relationship observed between psychological adjustment and neuroticism personality trait. Further all subscales of intercultural competence have statistically significant correlation with all major variables of the study with the exception of neuroticism.

4.4. Results of Structural equation Model (SEM)

In order to estimate the direct and indirect effects of the independent variables on the dependent variable as well as to examine the mediating role of psychological adjustment between the independent and dependent variables, the study employed structural equation modelling (SEM) through path analysis. The analysis was conducted using AMOS version 26 software. Before running the SEM analysis, the basic assumptions were checked, and no violations of the assumptions were observed. In an attempt to simplify the model, enhance interpretability, and ensure compliance with the assumptions, the items were parcelled within their respective latent factors. Accordingly, the conceptual mode of the study goes through modifications until the final most refined fitting indices of SEM path model was produced (see Figures 10 and 11 and Table 25 below).

Figure 10. SEM Initial Model

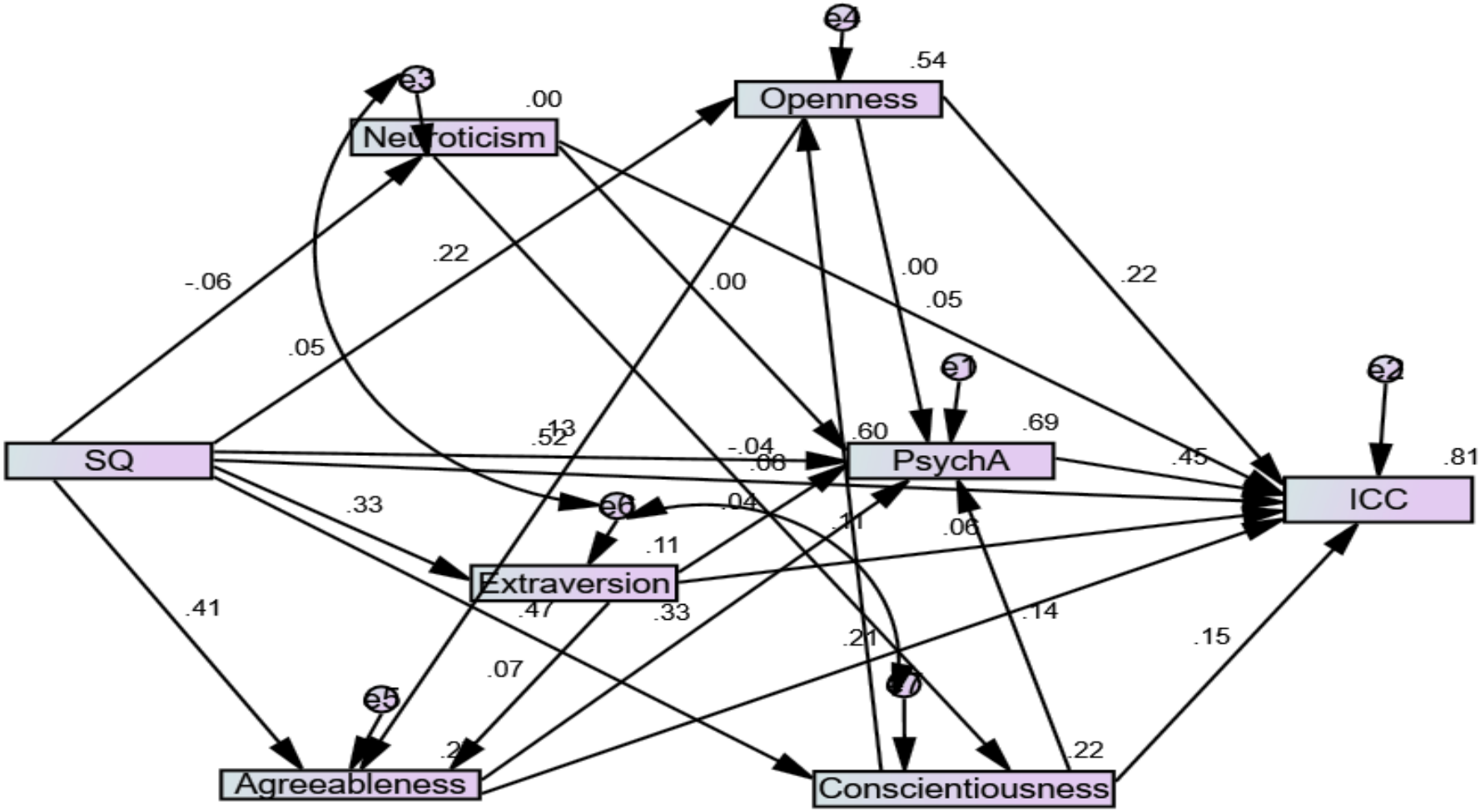


***Note**: ICC= intercultural competence, SQ = social intelligence, PsychA = psychological adjustment*

The hypothesised model was evaluated using the major goodness of fit indices (i.e., χ^2, χ^2 /df, GFI, AGFI, CFI, NFI, P-value, and RMSEA). The results of the initial SEM path model showed that the model failed to adequately fit the data as evidenced by the fit indices (see Table 25). This implies that there is a statistically significant difference between the proposed model and the observed data (CMIN/DF= 27.58, CMIN= 275.8, GFI=.899, AGFI=.638, CFI=.882, NFI=.879, RMSEA=.225, df =10, p-value=.000). This suggests that model modification is necessary in order to improve the fitness of the model to the data. In this regard, theory and empirical studies (e.g., Chih-Ping & Bentler, 2002; Byrne, 2010; Grace & Bollen, 2005) recommended that model modification can be done either via drawing a path between the factors that belong to the single higher-construct or by allowing errors associated with those factors to correlate, such as, the five arrows representing big five personality traits. In this modification, the focus was given to the structural relationships among the latent variables.

After drawing paths between the dimensions of the Big Five personality dimesnsions based on the modification indices observed in the initial model, the analysis was rerun, and the results were enormously improved, reaching an acceptable level of model fitness (See Appendix H). Figure 12 below displays the modified and final model of the SEM.

Figure 11: Modified and the final Structural equation Model (SEM)



***Note**: ICC = intercultural competence, SQ = social intelligence, PsychA = psychological adjustment*

Figure 12 above shows the final and refined version of the structural equation model (SEM). The results of the model showed that there was a statistically significant alignment between the observed data and the model, supporting the structural relationships within the SEM. The modified results were enormously improved (CMIN/DF= 3.827, CMIN= .957, GFI=.998, AGFI=.984, CFI=1.000, NFI=.998, RMSEA=.000, df =5, p-value=.43). Furthermore, for this conceptual model to be acceptable, the HOLTER values at significance levels of 0.05 and 0.01 must be greater than 200. As a result, for this conceptual model, the HOLTER value at 0.05 and 0.01 is 1307 and 1829, respectively.

Consequently, a test of multivariate normality was performed, and the results showed that the chi-square critical ratio (c.r.) value was 4.811, which is less than the critical value of 5, confirming that the data were multivariate normal (See Appendix E). Almost all the model's indices were very good, including the HOLTER index, surpassing the required threshold, indicating the model is acceptable (See Appendix H). As a result, the structural equation modelling (SEM) path coefficients and contributions were interpreted meaningfully. Table 26 below presents the standard regression weights of all predictor variables.

4.5. The Direct and Indirect Effects of predictor variables on intercultural competence

In an attempt to examine the direct and indirect effects of university students'social intelligence, psychological adjustment and big five personality traits on their intercultural competence, intercultural competence was regressed on all the predictor variables. The direct and indirect effects of the stated variables on perceived intercultural competence are shown in Table 26 below.

Table 25

*Summary of standardized structural regression coefficients (**β**) (N=528)*

SN	Independent variables	Mediating and Dependent variables	Standardized Structural Coefficients (β)
	Path from ----------> *To*		
1	Social Intelligence	Psychological adjustment	.516***
		Intercultural competence	.098*
2	Agreeableness	Psychological adjustment	.329***
		Intercultural competence	.206***
3	Neuroticism	Psychological adjustment	-.004
		Intercultural competence	.045
4	Extraversion	Psychological adjustment	.044
		Intercultural competence	.058
5	Openness	Psychological adjustment	.128***
		Intercultural competence	.222***
6	Conscientiousness	Psychological adjustment	.138***
		Intercultural competence	.148***
7	Psychological Adjustment	Intercultural competence	.449***

Note: *p< .05, ***p< .001

As shown in Table 25, the impact of social intelligence on the psychological adjustment of university students (β =.516, p, < .001) was larger than its impact on their intercultural competence (β =.098, p, <.05). Similarly, the agreeableness personality trait had greater influence on university students' psychological adjustment (β = .329, p < .001) than intercultural competence (β = .206, p < .001). However, the regression weights for extraversion and neuroticism in the prediction of psychological adjustment and intercultural competence were not statistically significantly (p>.05, two-tailed).

Although, openness had statistically significant effect on both psychological adjustment (β =.128, p<.001) and intercultural competence (β =.222, P<.001), the effect was stronger on intercultural competence. Likewise, conscientiousness had statistically significant influence on psychological adjustment (β=.138, P<.001) and intercultural competence

(β=.148, p<.001). Moreover, psychological adjustment (β=.449, p<.001) had statistically significant direct effect on university students' intercultural competence. This means that controlling for other variables, a one-unit icrease in psychological adjustment is associated with .449 increases in intercultural competence.

The results suggest that among the predictors examined, psychological adjustment (β=.449, p<.001) had the highest direct effect on intercultural competence, followed by openness (β =.222, P<.001), agreeableness (β = .206, p < .001), conscientiousness (β=.148, p<.001) and social intelligence (β =.095, p, <.05). However, the direct contributions of extraversion and neuroticism on intercultural competence were found to be not significantly different from zero.

Table 26

Direct, Indirect, and Total Effects of the Predictor Variables on Intercultural Competence (N=528)

Variables	Direct Effect	Indirect effect	Total effect
Social Intelligence	.098*	.544***	.639***
Psychological Adjustment	.449***	.000	.449***
Agreeableness	.206***	.148***	.354***
Neuroticism	.045	-.002	.043
Conscientiousness	.148***	.223***	.371***
Openness	.222***	.047	.269***
Extraversion	.058	.214***	.272***

*NB: *p < .05, ***p< .001*

As shown in Table 26, while the direct impact of social intelligence on university students' intercultural competence was relatively modest, its indirect (β=.544, p<.001) and overall effects (β=.639, p<.001) were notably substantial. The results indicate that agreeableness and conscientiousness have statistically significant direct (β=.206, .148, p<.001), indirect (β=.148, .223, p<.001), and total (β=.354, .371, p<.001) effects on students' intercultural competence.

Although, the direct effect of extraversion is not statistically significant, its indirect effect (β =.214, p<.001) and total effect (β =.272, p<.001) was statistically significant. Even though the openness trait had no statistically significant indirect effect on intercultural competence, it's direct (β =.222, p<.001) and total (β =.269, p<.001) effect was statistically significant and moderately high. However, neuroticism trait was not meaningfully associated with intercultural competence. Table 27 below presents the separate and joint contribution of the independent variables and the mediating variables on the dependent variables.

4.6. Individual and combined contributions of independent and mediating variables on the dependent variable

The individual and combined contributions of social intelligence, psychological adjustments and big five personality traits on students' intercultural competence are presented in Table 27.

Table 27

Separate, pairwise, threefold and combined Variance Explained in intercultural competence via predictor variables (n=528)

Contributions	Predictor Variables	Estimate ($R^{2)}$	F
	Neuroticism	.000	.036
	Extraversion	.133	81.25***
Separate	Conscientiousness	.312	236.59***
	Openness	.412	413.61***
	Agreeableness	.444	417.12***
	Social Intelligence	.502	524.72***
	Psychological adjustment	.687	1145.18***
	Neuroticism, Extraversion	.135	40.55***
	Extraversion, Conscientiousness	.367	151.06***
	Conscientiousness, Openness	.424	234.59***
Pairwise	Openness, Agreeableness	.551	445.73***
	Agreeableness, Social intelligence	.632	486.55***
	Social intelligence, Psychological Adjustment	.702	611.23***
	Extraversion, Conscientiousness, neuroticism	.367	101.37***
	Extraversion, Conscientiousness, Openness	.506	178.76***
Threefold	Conscientiousness, Openness, Agreeableness	.676	363.97***
	Openness, Agreeableness, SQ	.727	464.93***
	Agreeableness, SQ, PsyA	.734	482.12***
	Extraversion, Conscientiousness, Openness,	.811	322.03***
Combined	Agreeableness, Social intelligence, PsyA		

Note: SQ = social intelligence, PsyA - Psychological adjustment

Table 27 presents the separate and collective contributions of the independent and mediating variables together on intercultural competence. The results showed that psychological adjustment explained the largest proportion of variance (R^2=.687, P<.001) in intercultural competence followed by social intelligence (R^2=.502, P<.001), agreeableness (R^2=.444, P<.001), openness (R^2=.412, P<.001), and conscientiousness (R^2=.312, P<.001).

However, neuroticism was not found to be a significant predictor of university students' intercultural competence.

While the pairwise contributions are considered, social intelligence and psychological adjustment contributed the largest proportion of explained variance (R^2=.702, P<.001) in intercultural competence followed by agreeableness and social intelligence (R^2=.632, P<.001), agreeableness and openness (R^2=.551, P<.001), openness and conscientiousness (R^2=.424, P<.001) and extraversion and conscientiousness (R^2=367, P<.001). However, neuroticism and extraversion had the least contribution. Looking into the threefold combination contributions, the highest variance in intercultural competence was accounted for by agreeableness, social intelligence and psychological adjustment (R^2=734, P<.001) followed by openness, agreeableness and social intelligence, (R^2=724, P<.001), conscientiousness, openness and agreeableness (R^2=676, P<.001), extraversion, conscientiousness and openness (R^2=506, P<.001) whereas, neuroticism, extraversion and conscientiousness made the least contribution.

Moreover, the joint proportion of variance explained by all of the variables in relation to intercultural competence was $R^2 = .811$ ($p < .001$), as indicated in the final tested path model. This implies that 81.1% of the variance in intercultural competence is explained by the joint contribution of the six variables.

4.7. The contribution of students' class year, linguistic profile and parental level of education on student's intercultural competence

The role of respondents class year, linguistic profile and parental level of education on their intercultural competence are presented in Tables 28 and 29.

Tale 28

The results of multiple regression Analysis predicting intercultural competence from selected demographic variables (i.e. students class year, linguistic profile, parental level of education) (N=528)

Predictor variables	Outcomes variables (ICC and its factors)	B	R^2	T	SE	F
Class Year	IC-attitude	.675	.456	20.99	.26	440.76***
	IC-Knowledge	.544	.296	14.87	.37	221.26***
	IC-awareness	.556	.312	15.45	.279	238.75***
	IC-skill	.545	.297	14.91	.19	222.41***
	ICC	**.692**	**.480**	**22.01**	**.768**	**484.59*** **
Linguistic profiles	IC-attitude	.604	.365	17.378	.449	301.99***
	IC-Knowledge	.573	.328	16.03	.392	257.03***
	IC-awareness	.578	.334	16.25	.281	264.19**
	IC-skill	.536	.287	14.93	.277	220.98**
	ICC	**.750**	**.563**	**26.01**	**.858**	**676.664*** **
Mother's level of education	IC-attitude	.359	.129	8.83	.243	77.92***
	IC- Knowledge	.334	.111	8.12	.209	65.91***
	IC-awareness	.328	.108	7.97	.151	63.48***
	IC-Skill	.270	.073	6.44	.147	41.51***
	ICC	**.434**	**.189**	**11.06**	**.541**	**122.35*** **
Father's level of education	IC-attitude	.320	.102	7.73	.211	59.77***
	IC- Knowledge	.331	.109	8.04	.178	64.61***
	IC-awareness	.290	.084	7.72	.201	58.76***
	IC-Skill	.283	.080	6.77	.125	45.87***
	ICC	**.404**	**.163**	**10.14**	**.469**	**102.71*** **

ICC-intercultural competence, IC-intercultural *** *p<.001*

As observed in Table 28, the results indicate that class year, (β=.692, P<.001), linguistic profile, (β=.750, P<.001), mother's level of education (β=.434, p<.001), and father's level of education (β=.404, P<.001) were all significant and positive predictors of university students' overall intercultural competence. These variables explained about 48%, 56.3%, 18.9% and 16.3% of the total variance in the overall intercultural competence, respectively. The results also showed that students' class year was a significant positive predictor of intercultural attitude (β = .675, p <.001), intercultural awareness (β = .556, p <.001), intercultural knowledge (β = .544, p <.001), and intercultural skill (β =.545, p <.001). Further, the magnitudes of the beta coefficients indicated that participants linguistic profile was found to be a significant positive predictor of intercultural attitude (β=.604, P<.001), intercultural awareness (β=.578, P<.001), intercultural knowledge (β=.573, P<.001) and

intercultural skills (β=.536, P<.001). Likewise, the study found that both the mother's and father's level of education were significant predictors of the participants' intercultural attitude (β=.359, .320, p<.001), knowledge (β=.334, .331, p<.001), awareness (β=.328, .290, p<.001), and skill (β=.270, .283, p<.001). This implies that a significant proportion of the variance in the participants' overall ICC as well as on the four specific dimensions were explained by their class year, linguistic profile and mother's and father's level of education.

Table 29

The Results of Hierarchical Regression Analysis Predicting ICC from students' selected demographic profiles (N=528)

Variables entered and	Overall intercultural competence scale					
interaction	R	R^2	R2 adjusted	$R^2\Delta$	F	F-change
LP	.750	.563	.562	-	676.664***	-
LP, CY	.803	.645	.643	.082	475.907***	120.903***
LP, CY, MLE	.810	.656	.654	.012	333.413***	17.859***
LP, CY, MLE, FLE	.815	.664	.662	.008	258.861***	12.759***

***p<.001

NB*: LP; - Linguistic profile, CY; - class year, FLE-Father's level of education, MEL;- Mother's level of education,*

The findings from the hierarchical regression analysis reported in Table 29 indicate that the linear combination of students' linguistic profiles, class year, and parental education (mother's and father's level of education) accounted for 66.4% of the variance in intercultural competence [F[1,523] = 258.861 p<.001]. When all the predictor variables were entered into the regression equation sequentially based on their beta weights, students' linguistic profile accounted for the highest variation in the overall intercultural competence, explaining 56.3% of the total variance [F(1, 526) = 676.664, p < .001]. Student's class year was the next significant predictor [F (1, 525) = 120.903, p < .001] of intercultural competence followed by

mother's level of education [(F [1, 524]) = 17.859, P<.001] and father's level of education (F [1, 523]) = 12.759, p<001).

4.8. Differences in students' Intercultural competence and its subscales due to Sex, Family Structure and type of culture lived in before joining university

To investigate whether the respondents' overall intercultural competence and its dimensions differed due to sex, type of culture they lived in before joining university, and family structure, a Multivariate Analysis of Variance (MANOVA) was employed. MANOVA is a statistical technique used to examine differences in multiple dependent variables (i.e., total intercultural competence and its four dimensions) based on a set of independent variables (sex, type of culture studentslived in before joining university, and family structure).

Prior to conducting MANOVA, the researcher checked whether the underlying assumptions for MANOVA were met. For instance, Hair et al. (1998) suggested that there must be significant correlation between the entered dependent variables. Pearson correlation indicated statistically significant relationships between the dependent variables (i.e., overall ICC, intercultural attitude, knowledge, awareness and skill) (see Table 24). Furthermore, the assumptions for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices and multicollinearity were tenable.

Table 30

Means and Standard Deviations of the Intercultural Competence Scale and its Subscales by Sex, Family Structure and Perceived Type of Culture the Participants Lived in before Joining University

Independent variable	Level	Outcome variable	Mean	SD
Sex	Male	IC-attitude	31.40	7.31
		IC-Knowledge	24.47	6.33
		IC-Awareness	19.32	4.63
		IC-skill	16.800	4.92
		Overall ICC	**95.56**	**14.73**
	Female	IC-attitude	38.87	7.90
		IC-Knowledge	30.17	7.01
		IC-Awareness	23.73	4.78
		IC-skill	18.65	3.78
		Overall ICC	**117.16**	**16.35**
Type of culture lived in before joining university	Monoculture	IC-attitude	25	7.52
		IC-Knowledge	18.38	6.06
		IC-Awareness	15.89	4.92
		IC-skill	13.72	5.06
		Overall ICC	75.29	8.99
	Bicultural	IC-attitude	32.10	6.52
		IC-Knowledge	25.07	5.63
		IC-Awareness	19.82	4.35
		IC-skill	16.94	4.42
		Overall ICC	97.98	11.71
	Multicultural	IC-attitude	40.38	5.87
		IC-Knowledge	31.55	5.14
		IC-Awareness	24.45	3.62
		IC-skill	21.63	2.92
		Overall ICC	121.53	11.00
Family structure	Intact	IC-attitude	34.82	8.26
		IC-Knowledge	26.89	6.95
		IC-Awareness	21.19	5.12
		IC-skill	18.60	4.91
		Overall ICC	**104.83**	**18.92**
	Non-intact	IC-attitude	35.40	8.02
		IC-Knowledge	28.05	6.90
		IC-Awareness	22.07	4.73
		IC-skill	**18.65**	**4.53**
		Overall ICC	**108.78**	**18.90**

Note*: ICC = intercultural competence; IC = intercultural, SD = Standard deviation*

Table 30 presents the means and standard deviations for the overall intercultural competence (ICC) score and its subscales across different demographic characteristics of the participants, namely gender, type of culture the participants' lived in before joining

university, and family structure. The mean scores of the total ICC ($\bar{X}$ = 117.16) and all its subscales ($\bar{X}$ = 38.87, 30.17, 23.73, and 18.65) were higher for female respondents compared to their male counterparts. These findings clearly demonstrate female respondents' scored significantly higher levels of intercultural competence compared to their male counterparts.

The mean scores of the total ICC ($\bar{X}$=121.53) and its subscales ($\bar{X}$=40.38, 31.55, 24.45 and 21.63) were greater for respondents who grew up in multicultural setting as compared to respondents from bicultural and monoculture backgrounds. Thus, respondents who grew up in a multicultural context had higher levels of intercultural competence compared to those with bicultural and monoculture experiences.

On the other hand, the results showed that there is no significantly meaningful difference on overall ICC between respondents from intact and non-intact families. Furthermore, there are no significantly meaningful mean score differences in each dimension of ICC between respondents from intact and non-intact households. This result suggests that an individual's family structure does not make any significant difference on overall intercultural competence as well as on the four dimensions of intercultural competence. The results of the multivariate tests are presented in Table 31.

Table 31

Summary of MANOVA Results for the Main Effects of Sex, Family Structure, and type of culture on students' intercultural competence (N=528)

Effect		Value	F	Hypothesis Df	Error Df	Sig.	Partial Eta Squared
	Pillai's Trace	.668	52.246	10.000	1042.000	.000	.334
	Wilks' Lambda	.340	74.308[b]	10.000	1040.000	.000	.417
TC	Hotelling's Trace	.1.916	99.423	10.000	1038.000	.000	.489
	Roy's Largest Root	1.903	198.308[c]	5.000	521.000	.000	.656
	Pillai's Trace	.329	51.112[b]	5.000	521.000	.000	.329
	Wilks' Lambda	.671	51.112[b]	5.000	521.000	.000	.329
Sex	Hotelling's Trace	.491	51.112[b]	5.000	521.000	.000	.329
	Roy's Largest Root	.491	51.112[b]	5.000	521.000	.000	.329
	Pillai's Trace	.021	2.276[b]	5.000	521.000	.056	.003
FS	Wilks' Lambda	.979	2.276[b]	5.000	521.000	.056	.003
	Hotelling's Trace	.022	2.276[b]	5.000	521.000	.056	.003
	Roy's Largest Root	.022	2.276[b]	5.000	521.000	.056	.003

Note; TC; - cultural context lived in before joining university, FS;-family structure, ICC:- intercultural competence

The MANOVA results presented in Table 31 indicated a statistically significant difference between males and females on the combined intercultural competence scale (Wilks' Lambda = .671, F (5, 521) = 51.112, $p < .001$, partial $\eta^2 = .329$). This suggests that the two groups differed significantly in their overall intercultural competence and its subscales. Likewise, the main effect of the cultural context was statistically significant (Wilks' Lambda = .340, F (10, 1040) = 74.308, $p < .001$, partial $\eta^2 = .417$). This indicates that the students' intercultural competence differed significantly based on the cultural context they were exposed to prior to entering university. In contrast, family structure did not have a statistically significant effect on the participants' intercultural competence. This suggests that the participants' intercultural competence was not meaningfully influenced by their family structure. Focusing solely on the statistically significant predictor variables, a follow-up test

of between-subject effects was conducted in relation to each dimension and the overall dependent variable (ICC). The results are presented in Table 32 below.

Table32

MANOVA Summary table for Test of between subject effects of sex and type of cultural context on intercultural competence subscales (N=528)

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
	ICA	14183.119	2	7091.560	175.394	.000	.401
	ICK	9718.062	2	4859.031	162.271	.000	.382
CC	ICAw	4413.680	2	2206.840	130.111	.000	.332
	ICS	4075.814	2	2037.907	131.317	.000	.334
	Overall ICC	***122856.957***	***1***	***61428.497***	***494.321***	***.000***	***.654***
	ICAt	7328.753	1	7328.753	137.214	.000	.207
	ICK	4269.765	1	4269.765	106.043	.000	.168
Sex	ICAw	2549.162	1	2549.162	124.469	.020	.192
	ICS	1970.094	1	1970.094	101.029	.000	.161
	Overall ICC	***61410.740***	***1***	***61410.740***	***254.740***	***.000***	***.327***
	ICAt	544.551	2	272.275	7.240	.001	.027
	ICK	305.707	2	152.853	5.334	.005	.020
CC*Sex	ICAw	8025.308	2	207.010	13.439	.000	.049
	ICS	32.133	2	16.067	1.063	.346	.004
	Overall ICC	***3466.247***	***2***	***1733.123***	***17.002***	***.000***	***.061***

Note*: CC-= cultural context lived in before joining university, ICAt= intercultural attitude, ICK;-intercultural knowledge, ICAw= intercultural awareness, ICS = intercultural skill, df;- degree of freedom.*

As shown in Table 32, the results indicated statistically significant differences in university students' intercultural attitude ($F(2, 525) = 137.21$, $p < .01$, $\eta^2 = .207$), intercultural knowledge ($F(1, 525) = 106.04$, $p < .01$, $\eta^2 = .168$), intercultural awareness ($F(1, 525) = 124.47$, $p < .01$, $\eta^2 = .192$), and intercultural skills ($F(1, 525) = 101.03$, $p < .01$, $\eta^2 = .161$) as a function of their sex. This means that sex accounted for 20.7% of the variation in students' intercultural attitude, 16.8% of the variation in their intercultural knowledge, 19.2% of the

variation in their intercultural awareness and 16.1% of the variation in their intercultural skills. This implies that the mean scores of female respondents were significantly higher than that of male participants in the overall as well as dimensions of intercultural competence.

With respect to respondents' cultural context, the resultsindicate that the highest significant difference was observed in intercultural attitude $F (2, 524) = 175.39$, $p < .01$, $\eta^2 = .401$) followed by intercultural knowledge ($F (2, 524) = 162.27$, $p < .01$, $\eta^2 = .382$), intercultural skills ($F(2, 524) = 131.32$, $p < .01$, $\eta^2 = .334$) and intercultural awareness ($F (2, 524) = 130.11$, $p < .01$, $\eta^2 = .332$). This means that cultural context the respondents were exposed to before they joined the university explained a considerable amount of the variation in their intercultural attitudes (40.1%), knowledge (38.2%), skills (33.4%), and awareness (33.2%) respectively. Similarly, cultural context accounted for a significant amount of the total variance in the overall intercultural competence [$F (2, 524) = 494.32$, $p < .01$, $\eta^2 = .654$)]. These are substantial proportions indicating that the respondents' cultural background before joining university had a major impact on the development of their intercultural competencies.

In sum, as can be observed form MANOVA, the effect sizes (partial η^2) were medium for majority of the variables except that of the total ICC, intercultural attitude and intercultural knowledge, signifying large effect size. According to Cohen (1990), the effect sizes observed in this study are either medium or large.

Chapter 5
5. Discussion

In this chapter, the key findings of the study are examined in the context of the existing body of literature. The results pertaining to the research questions are assessed by drawing comparisons with findings of previous studies.

5.1. Level of intercultural competence, social intelligence, psychological adjustment and personality profile

One of the major objectives of the study was to examine the levels of intercultural competence, social intelligence, psychological adjustment, and personality profiles of university students. The results indicate that while a significant proportion of participants had a moderate level of intercultural competence, a considerable number of them exhibited low levels, and only a small percentage (24.3%) demonstrated high intercultural competence. Those with moderate intercultural competence tend to show some capacity for cross-cultural interaction though they struggle in certain situations.

The findings revealed that 36.7% (n=194) of participants may not have the necessary knowledge, attitudes, and skills to navigate diverse cultural contexts effectively and adapt their behaviour and communication styles accordingly. This suggests that many students at the sampled universities do not have the skills needed to engage with peers from different cultural backgrounds, which may hinder their ability to work, study, and develop intercultural competencies both during their academic careers and after graduation.

Supporting this, Hammer et al. (2003), Gizem and Soner (2016), and Bosuwon (2017) reported that international students demonstrated significantly greater levels of intercultural competence compared to their domestic peers, who showed relatively lower levels. Numerous studies (e.g., McMurray, 2007; Chocce et al., 2015) have similarly documented

that domestic university students possess lower intercultural competence than international students. The present study aligns with the findings of Brain (2019), Anteneh (2012), and Mekonnen (2013), which highlighted that many college students have low cross-cultural awareness and poor intercultural communication competence.

This phenomenon may be attributed to ethnocentrism, a lack of intercultural dialogue, and concerns about facing discrimination within their own ethnic communities if they demonstrate openness to others. However, it is crucial to emphasize the pressing need for higher levels of intercultural competence in today's multicultural society, particularly in Ethiopia, where many conflicts stem from these issues. High intercultural competence equips university students to thrive in a globalized world, enhancing their academic, personal, and professional development, as supported by past studies (e.g., Byram, 1997; Deardorff, 2006; Fantini, 2009).

Regarding the level of social intelligence, the result of the study revealed that slightly the highest proportion (38.5%) of the respondents reported to have low level of social intelligence followed by (36.9%) of the participants who reported to have moderate level of social intelligence. The mean scores of the two groups on social intelligence were significantly different. The findings of this study were consistent with the work of Raziq and Shukla (2023), which examined the level social intelligence among university students in India and found that a significant number exhibited low level of social intelligence. Malik et al (2018) also reported that university students have low to moderate low level of social intelligence.

The low level of social intelligence among the university students may be attributed to limited prior exposure to diversity, lack of intercultural dialogue at university level, polarization of social groups, language barriers, lack of psychological adjustment, personality

traits and overreliance on social media (Augusto et al., 2010; Goleman, 2007; Silvera et al., 2001). In addition to these, history of ethnic tension and conflict in Ethiopia can cast a long shadow over university campuses to overcome deeply rooted biases and develop genuine social intelligence. Consequently, it is crucial to note that universities can assist students in developing their social intelligence by promoting extracurricular activities, mentorship, intercultural conversations, and strengthening interpersonal and public speaking abilities to become interculturally competent.

Regarding the respondents' psychological adjustment, the study findings indicate that most of them had low (41.1%) to moderate (32.2%) level. This suggests that the significant proportion of the students had inadequate psychological adaptations. This finding could be explained by a number of variables, including lack of social support, low social capital, maladaptive skills, a lack of multicultural competency, personality traits, scholastic stress, and so on. The current study's findings were in line with a study done among Egyptian university students (Ibrahim et al., 2013), which discovered that a significant number of the students had poor psychological adjustment. Besides, Getahun and Berhanu (2019) found that 59.6% of the university students they investigated experience low level/distressed psychological adjustment. Further, several local researches (Esmael, Ebrahim & Misganew 2018; Getu, Asmare, Yihunbelay, & Alemu, 2018) found that university students in Ethiopia had (low or high) distressed levels of psychological adjustment, which is consistent with the findings of this study.

This suggests that university students with relatively poor psychological adjustment levels may have adjustment issues that arose from exposure to culture shock, exposure to new social environments, lack of intercultural dialogues and other factors. As evidenced by their poor degree of psychological adjustment, a multifaceted strategy is required to enhance the psychological adjustment of Ethiopian university students.

Regarding personality profile, the findings indicated that the majority of the study participants could be characterized by conscientiousness (56.4%), agreeableness (52.65%), openness (51.89%) and extraversion (50.19%). However, a fairly smaller percentage (48.5%) of respondents exhibit neuroticism personality profile. The results of this study are in line with a study conducted on Ethiopian university students by Gemechu (2021), which found that conscientiousness, openness, and agreeableness are the most common traits among the respondents. In this study, high or low scores for each of the Big Five personality traits were determined by whether respondents scored above or below the mean values for each trait. This suggests that the respondents who scored above the mean values are considered to have the characteristics/profiles of that personality trait (Irving & Roger, 2017).

A high conscientiousness score, for instance, is indicative of being well-organized, disciplined, meticulous, deliberate, and careful, with strong impulse control. Conversely, those with low score on conscientiousness may struggle with impulse control, being incompetent, careless, and have difficulty in completing tasks. This suggests that the majority of the study participants exhibited these traits, and their combined scores indicate a high level of conscientiousness. Regarding agreeableness, which focuses on people's orientation and interactions with others, a high score indicates that respondents scored highly on facets such as forgiveness, straightforwardness, sociability, modesty, sympathy, and empathy. Conversely, people who score poorly on this trait are rarely classified as having an agreeableness personality. This study supports the findings of Kokkinos, Antoniadou, and Voulgaridou (2024) and Gemechu (2021), which found that conscientiousness and agreeableness were the most prevalent personality traits among university students.

With regard to openness personality trait, a person is more likely to be identified as having this personality trait if he/she scores highly on qualities like being curious, imaginative, creative, open to new experiences, and unconventional (Costa & McCrae, 1992).

As a result, the findings indicated that a sizable percentage of respondents who scored high on every item meant to gauge openness were classified as having openness-related personality traits. The findings of this study were in line with those of Gemechu's (2021) study, which showed that slightly higher percentage of Ethiopian university students had openness-type personalities. Furthermore, the results showed that nearly half of the research participants had high extraversion traits. Given their high extraversion score, it is likely that they are more assertive, energetic, sociable, outgoing, fun-loving, and enjoy being the centre of attention (Yin, Lee, Sheldon, Li & Zhao, 2021). High neuroticism in respondents indicates that they score highly on certain aspects of the domain, such as emotional instability, hostility, anger, sadness, depression, and vulnerability.

Importantly, the study showed that individuals do not conform to a single personality profile; rather, they often exhibit a blend of the Big Five traits. High scores on multiple traits indicate overlapping characteristics, suggesting that students may demonstrate strengths in conscientiousness and openness or agreeableness and extraversion simultaneously. This versatility can help students adapt to various situations effectively. For instance, a student with high conscientiousness and openness may excel in both structured and creative tasks, while those with high agreeableness and extraversion are likely to thrive in group settings and form strong peer relationships. Numerous empirical studies (Yin et al., 2021; Costa & McCrae, 1992, 1999; Gemechu, 2021) support the notion that individuals can exhibit multiple personality profiles concurrently.

5.2. The Relationship between the major variables of the study

Social intelligence, psychological adjustment, the big five personality traits, and intercultural competence were the main variables in this study. Zero order correlation coefficients were used to investigate the nature of the relationship between these variables.

The study found a strong, statistically significant link between social intelligence and intercultural competence among university students. This means that social intelligence aids university students to become more interculturally competent, so they can interact effectively and successfully with people from different cultural backgrounds. The results of this study are consistent with a study done in Thailand, which found a relationship between social intelligence and intercultural competence in college students (Bosuwon's, 2016).

The current study's findings are also consistent with a large body of prior research (Dong et al., 2008; Emmerling & Boyatzis, 2012; Saberi, 2012), which found a statistically significant positive correlation between university students' intercultural competence and social intelligence. This suggests that students who are skilled at navigating and valuing cultural differences are also more likely to be proficient at understanding and managing social interactions. Therefore, fostering social intelligence in university students can significantly enhance their intercultural competency, which will benefit students in a range of academic, social, and professional domains both during their academic careers and in the workforce following graduation.

When it comes to psychological adjustment and intercultural competence, there is a statistically significant and strong correlation between these variables. This implies that higher levels of students' psychological adjustment were correlated with better intercultural competence levels. According to Bethel, Ward, and Fetvadjiev (2020), students who have made better psychological adjustments typically have higher levels of intercultural competence, which is consistent with the findings of this study. The findings of this study are also supported by ample of evidence, which shows that intercultural competence and psychological adaptation of university students are directly and significantly correlated (Hirai et al., 2015; Lee & Chen, 2000; Matsumoto et al., 2004; Tuncel & Arıcıoğlu, 2017). This

demonstrates how promoting psychological well-being can greatly improve students' capacity for participation and communication in a range of cultural contexts.

In a similar vein, a number of studies have demonstrated that intercultural competence and effective communication were higher among students who had a better psychological adjustment (e.g., Lee et al., 2004; Yeh & Inose, 2003; Wang et al., 2012). This indicates that students with strong adaptive psychological adjustment can manage stress by remaining calm under pressure, avoiding overreactions, feeling confident in their abilities, managing diversity/cultural shock, and valuing their resilience. These qualities contribute to their enhanced intercultural competence.

Regarding the correlation between intercultural competence and big five personality, the findings indicate a moderate to strong correlation coefficients between the variables. This suggests a stronger correlation between the intercultural competence of university students and their personality traits, but it also raises the possibility that other factors may play a role in the development of these skills. Conscientiousness, agreeableness, and openness were found to have a strong correlation with intercultural competence. However, there is little to no correlation between students' intercultural competence and extraversion and neuroticism. The findings of this study align with those of Chan and Shy (2016), who found a strong correlation between university students' intercultural competence and the personality traits of conscientiousness, agreeableness, and openness. Similarly, Ang et al., (2005), Li et al., (2016), and Wang and Ching (2015) also reported that, except for neuroticism, all personality traits are moderately and positively associated to intercultural competence. The strong positive correlations between conscientiousness ($r = .557$, $p < .001$), agreeableness ($r = .666$, $p < .001$), and openness ($r = .664$, $p < .001$) with intercultural competence (ICC) indicate that students who exhibit these personality traits are more likely to interact effectively and harmoniously with people from diverse cultural backgrounds.

Furthermore, a number of scholars have looked into the connection between intercultural competency and the Big Five personality traits and found out that conscientiousness, agreeableness, and openness traits are strongly correlated with university students' intercultural competence (Janelle & Tenzin, 2017; Li et al, 2016; Rings & Allehyani, 2020). This implies that some personality traits enhance students' adaptability, empathy, and intercultural communication skills, which are crucial for navigating and thriving in diverse eco-cultural environments. However, the results of this study suggest that neuroticism is not associated with students' intercultural competence, suggesting that individuals with high levels of anxiety, emotional instability, and stress sensitivity may hinder university students' capacity to engage with people from diverse cultural backgrounds.

To put it briefly, the positive correlation between agreeableness, conscientiousness, and openness and intercultural competence can be attributed to their cooperative and empathic nature in building and maintaining cross-cultural relationships, their diplomatic ability to handle intercultural conflicts, their ability to foster more productive and respectful interactions with diverse student groups, and their capacity to share and understand others' feelings which is crucial in navigating different cultural perspectives. Numerous previous studies have also corroborated this, showing that college students who score highly on conscientiousness, agreeableness, and openness also have higher levels of intercultural attitude, awareness, knowledge, and skills (Chan& Sy, 2016; Rings & Allehyanib, 2020 ; Van der Zee & van Oudenhoven, 2013).

5.3. Direct and Indirect Effects of the Variables on Intercultural competence of university students

To fully understand the causal relationships among the variables, SEM path analysis was conducted and the results showed that there are significant direct and indirect connections among the major variables of the study. In the current study, university students'

intercultural competency was directly and significantly impacted by psychological adjustment, openness, agreeableness, conscientiousness, and social intelligence. Among the direct predictors of intercultural competence, the greatest impact was observed from students' psychological adjustment ($\beta = .449$, $p < .001$) followed by openness ($\beta = .222$, $p < .001$) and agreeableness ($\beta = .206$, $p < .001$) traits. This means that students who possess better adaptive skills such as cognitive, affective, and behavioural abilities in new cultural environments are more likely to excel in intercultural interactions. These findings are in consonance with those of previous studies, indicating the direct impacts of psychological adjustment in successful intercultural adaptation (Ward & Kennedy 1993; Searle & Ward, 1990).

Similarly, several studies have indicated that various aspects of psychological adjustment such as cultural awareness, problem-solving abilities, flexible thinking, emotional regulation, resilience, empathy, social adaptability, active engagement, and effective communication play a crucial role in shaping students' intercultural competencies (Berry, 1997; Hirai et al., 2015; Lee & Chen, 2000; Mesidor & Sly, 2016; Wang et al., 2012). Furthermore, though their study was done on international university students, Cui and van Dijke (2022) and Tran, Tan, and Nguyen, (2022) found that psychological adjustment has a statistically significant direct impact on students' intercultural competence. This suggests that students who are better at adjusting psychologically are likely to exhibit greater intercultural competence, which helps them interact more effectively with individuals from diverse cultural backgrounds. This may be the case because the present research (conducted in Ethiopia) has shown how crucial it is to support students' psychological adjustment in order to improve their intercultural competency.

The result of this study shows, three of the big five personality traits (openness, agreeableness, and conscientiousness), and social intelligence have a significant but weak direct impact on students' intercultural competence. The findings of this study are consistent

with those of Chan and Shy (2016), who found that students' intercultural competence is significantly impacted by their conscientiousness, agreeableness, and openness traits. Additionally, a number of previous studies on emerging adults have found that the big five personality traits directly predict intercultural competence, with neuroticism frequently being the only factor that negatively predicts students' intercultural competence (Janelle & Tenzin, 2017; van der Zed & van Oudenhoven, 2013; Wang & Ching, 2015). Similarly, Caligiuri and Tarique (2012) contended that the big five traits (conscientiousness, emotional stability, agreeableness, and openness) have a positive impact on adolescents' ability to interact and adapt effectively across cultural boundaries. This suggests that in Ethiopia, where diversity can sometimes lead to tension, promoting openness to new cultures, ideas, and perspectives, as well as enhancing social engagement and communication, can help university students better manage stress and navigate the multicultural environment. Therefore, Ethiopian universities should be proactive in helping students navigate diversity and contribute to more harmonious and inclusive communities, as this will have a significant impact on social cohesion, peaceful coexistence, and the development of the country.

On the other hand, the current study demonstrated that social intelligence, conscientiousness, extraversion, and agreeableness had statistically significant indirect effects on the intercultural competence of university students. In this instance, social intelligence ($\beta = .544$, $p < .001$) has a strong indirect impact on the intercultural competence of university students, whereas the other factors are less significant. This study's findings align with previous research (Alon et al., 2016; Bücker, Furrer & Lin, 2015; Crowne, 2013; Deardorff, 2006), which shows that social intelligence through its focus on social awareness, skills, and interpersonal abilities plays a crucial direct and indirect role in enhancing university students' intercultural competence. This suggests that fostering social intelligence may be a valuable approach to enhancing intercultural competence in higher education contexts.

The social capital that individuals develop from their parents, peers, and other influential people throughout their lives such as social perceptiveness, behavioural flexibility, empathy, perspective-taking, interpersonal skills, emotional regulation, and metacognitive awareness can significantly enhance university students' intercultural competence. This, in turn, better equips them to face the challenges and seize the opportunities in an increasingly globalized world. Consistent with previous research, this finding indicates that intercultural competence can be positively predicted by students' social intelligence (Bosuwon, 2017; Breithaupt, 2017a; Guntersdorfer & Golubeva, 2018; Hagan, 2002). This confirms that a higher level of social intelligence in students positively contributes to their intercultural competence, while a lower level of social intelligence is associated with reduced intercultural competence. According to Saberi (2012), social skill which is typically explained in terms of a student's communication skill, information processing ability and self-regulation capabilities directly influences a college student's intercultural competence.

To put it in brief, numerous academic publications have demonstrated a direct effect of social intelligence on university students' intercultural competence (Aydogan & Akbarov, 2014; Dong et al, 2008; Chocce et al., 2015; Thorndike, 1920). However, this study did not find a strong direct effect of social intelligence (SQ) on intercultural competence (ICC). Instead, social intelligence had a significant indirect effect ($\beta = .544$, $p < .001$) on intercultural competence, which was much stronger than its direct effect ($\beta = .098$, $p < .05$). This shows that improving intercultural competence in higher education can be facilitated by cultivating social intelligence. The dearth of a strong direct effect of social intelligence on intercultural competence might be attributed to the inherent complexity of interpersonal dynamics, the limitations in measuring these constructs, the influence of contextual factors, and the multifaceted nature of intercultural competence. In this regard, future research could

address existing gaps and provide practical insights for improving these critical skills in the Ethiopian context.

With regard to the mediating role of psychological adjustment, the finding of the study showed that, conscientiousness, agreeableness, extraversion, and social intelligence increase university students' psychological adjustment, which in turn influences their intercultural competence. This indicates that the relationship between social intelligence, the big five personality traits (especially conscientiousness, extraversion and agreeableness) and intercultural competence is mediated by psychological adjustment. The influence of social intelligence ($\beta = .544$, $p<.001$), conscientiousness ($\beta = .223$, $p<.001$), extraversion ($\beta = .214$, $p<.001$) and agreeableness ($\beta = .148$, $p<.001$) exert a statistically significant indirect influence on intercultural competence through the mediating role of psychological adjustment. Previous research has confirmed the significance of social intelligence and the big five personality traits in improving students' psychological adjustment and its contribution to intercultural competence (Kim & Gudykunst, 2022; Zhang & Li, 2020; Chen & Lee, 2021; Leung & Cohen, 2020).

This suggests that the psychological adaptation of university students to the new culture affects the ways in which their social intelligence and personality traits enhance their intercultural efficacy. Consistent with this finding, Nguyen and Lee (2021) reported that students who adapt well psychologically are more effective in using their social intelligence across various cultural contexts, resulting in enhanced intercultural competence. This suggests that while social intelligence and psychological adjustment are both positively correlated with intercultural competence, people with better psychological adjustment are able to make greater use of their social intelligence, which raises their level of intercultural competence.

Similarly, Schmitt and Allik (2020) and Chen and Lee (2021) demonstrated that the influence of personality traits on intercultural competence is partially contingent on how effectively students adapt psychologically to their new cultural surroundings. This means that psychological adjustment is essential for university students to effectively utilize their personality traits in improving their intercultural competence. A study by Leung and Cohen (2020) also indicates that students who have made more effective cognitive, behavioural and emotional adjustment may be better equipped to leverage their personality traits successfully navigate intercultural interactions. These findings underscore the importance of considering the indirect mechanisms through which individual differences, such as social intelligence and personality traits such as conscientiousness, extraversion and agreeableness, can shape the development of intercultural competence among university students. This result is empirically supported with the study of Rockstuhl, Ang, Ng, Lievens, and Van Dyne (2015) and Bücker et al (2015) which showed that individual differences such as social intelligence and personality traits indirectly affect the development of intercultural competence through a variety of cognitive and behavioural mechanisms. This implies that Universities in Ethiopia should offer robust psychological support, cultural sensitivity training, personal growth opportunities, inclusive learning environments, and intercultural dialogues to ease students' transition to university life and enhance their ability to engage with diverse cultures.

5.4. Independent and Joint Contributions of the Study Variables in Predicting Intercultural Competence

The results of this study revealed that psychological adjustment (68.7%) accounted for the largest variance in intercultural competence followed by social intelligence (50.2%). . In this regard, there are several studies that reported the contribution of both psychological adjustment and social intelligence on university student's intercultural competence.

For example, studies by Liao and Wei (2021), Bosuwon (2017), Breithaupt (2017a), and Guntersdorfer and Golubeva (2018) have identified psychological adjustment and social intelligence as significant independent predictors of university students' intercultural competence. This implies that psychological and social intelligence that the students possess are the most important elements in boosting their intercultural competences in diverse eco-cultural settings. The joint efforts of parents and universities in providing comprehensive support for psychological adjustment encompassing cognitive, behavioural, and emotional aspects and enhancing social intelligence skills such as information processing, social awareness, and social skills are key strategies for helping students develop greater intercultural competence and a global mind-set.

The Big Five personality traits also independently influence how students approach, engage with, and adapt to intercultural interactions, albeit not as strongly as psychological adjustment and social intelligence. In this study, four of the big five personality traits, extraversion (13.3%), conscientiousness (31.2%), openness (41.2%), and agreeableness (44.4%) also accounted for significant variance in intercultural competence. A number of earlier studies have also shown that intercultural competence can be affected by individuals' personality traits. For example, Chan and Shy (2016) argued that the qualities of an individual that determine intercultural competence include open mind, curiosity, organisation, self-discipline, positive emotion, sociability, assertiveness, compassion, modesty, and altruism. Therefore, it is believed that these characteristics are thought to be indicators of a person's personality traits and predict their ability to engage with students from a variety of cultural backgrounds.

Consistent with this finding, several studies reported that one's intercultural attitude, awareness, knowledge, skill and overall intercultural competence are affected by the personality traits (Wood, 2013; Zimmermann & Neyer, 2013; MacDonald, 1998). For

example, students' agreeableness score is a strong predictor of their intercultural interactions because those who score high on this trait tend to be cooperative, empathetic, helpful, compliant, trusting, altruistic, modest, and cooperative (Hodson & Rush, 2022; Kumar & Dholakia, 2022; Kunkel, & Howard, 2023; Leung & Cohen, 2020). These traits increase their likelihood of appreciating and respecting different viewpoints and practices, which facilitat more harmonious and cordial interactions between people from different cultural backgrounds.

The results of this study also showed that the openness trait, in addition to agreeableness, significantly influences the variation in intercultural competence among college students. Similarly, Smith (2012) and Oolders et al. (2008) discovered that openness to experiences is more strongly linked to college students' intercultural competence than other personality traits. The openness personality trait is defined by receptiveness to new experiences and those who score high in this trait are often described as having an intellectual curiosity, artistic interests, creativity, imagination, and willingness to seek out and embrace adventurous experiences. This trait facilitates smoother intercultural interactions and contributes to more effective and empathetic communication across cultural boundaries. In line with this, Huang and van den Bos (2023) reported that individuals high in openness to experience are better equipped to develop intercultural competence due to their adaptability, curiosity, and willingness to engage with diverse cultural perspectives and experiences. Likewise, many past studies have also provided evidence that higher levels of openness are associated with greater intercultural competence (Chan & Sy, 2016; Mobley & Kelly, 2016; Schaefer & Schaefer, 2023; Van der Zee & Oudenhoven, 2013).

The current study's findings indicate that intercultural competence is moderately predicted by conscientiousness. The conscientiousness trait is reflected with an individual's degree of organization, dependability, self-discipline and those who score high on this trait

are often described as having high self-efficacy, orderliness, dutifulness, achievement striving, self-discipline and cautiousness**.** Pertinent to this, a study by Dai and Wang (2023) found a person with high conscientiousness trait tends to have effective intercultural interactions. High scores on each facet of conscientiousness significantly contribute to intercultural competence by improving students' organizational abilities, reliability, motivation, self-management, and decision-making skills, thereby leading to more effective and respectful interactions and relationships across cultures. Similar to this study, Parker and Wright (2024) and Kim and Lee (2023) found that intercultural competence is significantly influenced by the conscientiousness trait.

According to the study's findings, extraversion has a smaller impact on students' intercultural competency. This finding is in line with a number of earlier studies (Ang et al., 2006; Chan & Sy, 2016; Smith & Lee, 2022) which found that extraversion contributes little to intercultural competence when compared to the other three traits, while neuroticism typically has a negative impact. Extraversion is characterized by traits such as sociability, assertiveness, energy, excitement-seeking, positive emotions or enthusiasm, and warmth or outgoingness. However, high scores on these specific traits have a modest impact on the intercultural competence of university students. Presbitero (2016) and Huff et al. (2014) reported that extraverted personality trait appears to be a key asset in fostering intercultural competence, whether in the context of university students preparing for global careers or expatriate professionals working across borders. This suggests that even though the contribution is not as strong, the study's findings showed that university students' intercultural competence which enables them to successfully navigate and adapt to new, diverse cultural environments is positively correlated with extraversion traits .

When pairwise contributions were examined, social intelligence and psychological adjustment contributed the most in explaining the variance in intercultural competence followed by agreeableness and social intelligence, openness and agreeableness, and conscientiousness and openness. The greatest variance in explaining intercultural competence came from three factors: agreeableness, social intelligence, and psychological adjustment. These were followed by openness, agreeableness, and social intelligence, conscientiousness, openness, and agreeableness, as well as extraversion, conscientiousness, and openness traits. When combined together social intelligence and psychological adjustment paired with the big five personality traits, accounted for 81.1% of the variance in intercultural competence among university students. This suggests that while both pairwise and triple factors are important in explaining university students' intercultural competence, the combined contribution of the variables was the most important in fostering the development of intercultural competence in university students.

The possible explanation for this finding could be that intercultural competence is a complex construct that involves the interplay of various psychological, social, demographic and behavioural factors and simply examining the contributions of a pair of or triple variables may not capture the full picture. Therefore, the combined effects of multiple factors are crucial for cultivating the intercultural competence of university students. On the other hand, the synergistic interaction of different traits, skills, and environmental factors has the greatest positive impact on university students' development of intercultural competence because these combined and holistic effects magnify each of their individual contributions.

University life, which is viewed as an emerging adult age, ranging from 18 to 29, is an important time for intercultural interaction (Deardorff, 2006; Sam & Berry, 2010; Bronfenbrenner, 1979). Therefore, environmental, institutional, systemic, social, and personal factors can all help to enhance students' intercultural competence (Deardorff, 2011; Miville,

Constantine, & So-Lloyd, 1999; Ward, & Kennedy, 1999). In Ethiopia, where ethnic and cultural diversity can sometimes be a source of tension, educational institutions and family environments can play a crucial role in helping students cultivate intercultural competence. Numerous previous studies support this one as well, showing that intercultural competence can be directly or indirectly influenced by a person's psychological capital, interpersonal skills, cultural exposure, family, school, and university environments (Berry, 2005; Bornstein & Lansford, 2010; Coleman, 1988; Deardorff & Jones, 2012; Goleman, 2007; Hansen et al., 2000; Fantini, 2006).

Overall, it makes sense to believe that the three predictor variables (social intelligence, psychological adjustment, and the big five personality traits) have a harmonising effect on intercultural competence of emerging adults. For instance, the intercultural competence of university students is influenced by the effective intrapersonal and interpersonal skill-building provided by their parents and teachers throughout their academic journey. The personal, social, language, and cultural experiences that students gain from their parents, communities, peers, schools, and universities help them to cultivate effective social intelligence, psychological adjustment, and personality traits. This enables university students to develop stronger intercultural knowledge, awareness, attitudes, and skills. The results of the study confirmed that the predictor variables including social intelligence, psychological adjustment, and the Big Five personality traits collectively contributed in explaining about 81.1% of the variance in students' intercultural competence. This suggests that improving university students' social intelligence, psychological adjustment, and personality traits can yield significant benefits in terms of improving their intercultural effectiveness.

5.5. Differences in intercultural competence as a function of students class year, linguistic profiles and parental level of education

The results of the study revealed that student's class year had statistically significant effects on their overall intercultural competence and subscales. This indicates that the class year accounts for 48% of students' intercultural competence, with higher class year corresponding to greater intercultural competence. This study results are consistent with earlier studies that emphasized how extended time spent as a university student affects their level of intercultural competence (Sandell & Tupy, 2015; Tuncel & Arıcıoğlu, 2017). The students' length of time spent in university increases their exposure to diversity, sharpens their critical thinking skills, expands their social networks, and improves their language proficiency, all of which contribute to their ability to interact successfully in a variety of cultural contexts. In line with this, previous studies (e.g., Gizem & Soner, 2016; Nicia & María; 2023; Deardorff, 2011; Okken et al., 2022) have reported that the year level or the duration of a student's stay in the university, plays a major role in explaining the variation in intercultural competence. Due to their interactions with peers from various eco-cultural backgrounds, students' intercultural competence tends to significantly improve as they get closer to their senior year.

The results of this study also showed that the number of languages that students speak could account for a sizable amount of the variation in their intercultural competence. This means that participants' linguistic profile was a significant positive predictor of their intercultural interaction, accounting for approximately 56.3% of the variance. In line with this, Chen and Starosta (1996) and Daniel and Jubert (2016) show that students who are proficient in multiple languages tend to have a more understanding of cultural contexts and exhibit greater sensitivity in intercultural interactions.

The ability to speak multiple languages, in addition to one's native language, can enhance an individual's respect and tolerance for diversity (Berry et al., 2002; Chao et al., 2011; Ruben, 1989). Similar to this finding, Abduh and Rosmaladewi (2018) and Upton (2022) argued that multilingual individuals often possess a deeper understanding of cultural nuances, which enhances their intercultural sensitivity. Congruent to this, Doherty, (2018) and Jackson, (2019) contended that people who speak multiple languages frequently have a more profound comprehension of cultural subtleties, which improves their intercultural sensitivity. Other previous studies further indicated the more diverse language experiences people have, the higher their level of intercultural competence tends to be (e.g., Anteneh, 2012; Dinges, 1983; Ganesan & Morales, 2022; Seregina et al. 2019). Therefore, family support, legislative frameworks, and educational policies that emphasise the importance of multiple languages can therefore assist students in developing their multilingual skills, which will improve their intercultural competence and global perspective.

Regarding the parents' educational attainment, the findings indicated that the intercultural competence of students is significantly impacted by the educational attainment of parents. This means that parents with the highest levels of education can impart to their children a variety of skills related to multifaceted interaction. Regarding this point, Deardorff (2006) found that parental education level was one of the individual-level factors that contributed to the development of intercultural competence skills. These skills include giving their children access to financial and educational resources, fostering a positive attitude towards diversity, adopting an effective communication model, and giving them better opportunities for international travel, education, and exposure, all of which improve their intercultural competence. Hammer et al. (2003) and Deardorff (2012) also found that higher levels of parental education were positively linked to greater intercultural competence in individuals. Though domestic university students were not considered, a study from the

United States found a consistent result indicating that higher level of parental education was found to be associated with better intercultural competency and adjustment (Matsumoto et al., 2001).

Contrary to this finding, Göksu and Güvendir (2022) found that parental education level did not serve as a reliable predictor of students' intercultural sensitivity. Cultural background, linguistic profiles and proficiency, first-hand exposure to and interaction with diverse cultures, educational norms and values, and participation in multicultural activities can all have a greater impact on intercultural competence than parental educational attainment. In this context, Chen and Starosta (2017) argue that intercultural competence is more profoundly influenced by personal experiences and the social environment in which an individual is raised, rather than merely by parental education alone. This conflicting result may stem from the intricate and multifaceted nature of intercultural competence, the influence of mediating factors, cultural differences, language profiles, measurement issues, adjustment difference, and personality variations in developing these inter-cultural interaction skills. To thoroughly analyse the effect of parental education on students' intercultural competence, it would be prudent to employ specific methods, such as assessing potential intervening variables, performing cross-cultural comparisons, and utilizing longitudinal and mixed-method designs. These approaches will clarify the true relationship between parental education and emerging adults' intercultural interactions.

5.6. The influences of sex, family structure and cutural context the students lived in before joining university on intercultural competence

One of the objectives of this study was to determine whether there are statistically significant differences in students' overall intercultural competence and its subscales based on selected demographic characteristics, including sex, family structure, and cultural context. In this sense, the study's findings demonstrated that there is a statistically significant mean

difference between male and female students in their overall intercultural competence as well as on the intercultural competence subscales. This indicates that compared to their male counterparts, female participants have high level of intercultural competence. This result is in line with earlier studies (Amanda et al., 2017; Chen & Hu, 2023; Cheng & Weng, 2019; Trond & Niels 2019) which found that women are more interculturally competent than men. This could mean that female students may have a higher motivation to understand, appreciate, and embrace cultural differences. Similar to this finding, Vaughan and Jacobson (2020) and Matveev and Milter (2004) argued that due to their sensitivity to others' feelings and perspectives females have statistically significant higher mean scores on intercultural competence than males. Other studies have also found that females tend to exhibit higher intercultural competence compared to males, due to their better tendency of emotional intelligence, social capital, communication skills, and greater adaptability and open-mindedness (Caruso & Meyer, 2017; Davis & Melchior, 2015; Eagly & Wood, 1999).

Regarding family structure, the findings of this study indicate that there are no statistically significant mean differences in the intercultural competence of university students. This implies that the family structure of an individual, whether intact or non-intact, does not make a significant difference on dimensions of intercultural competence as well as on overall intercultural competence. The influence of family structure on intercultural competence is relatively weak because factors such as personal attributes, educational experiences, exposure to different environments, cultural background, and language skills play a more crucial role in developing intercultural competence than family structure itself (Deardorff, 2006; Hwang & Ng, 2013). Individual experiences and personal agency frequently have a greater influence on intercultural competency than family structure (Fantini, 2009). The distinct social dynamics pertaining to family structures in Ethiopia may supersede the overall pattern observed elsewhere, underscoring the significance of taking

contextual factors into account when analysing the factors that determine intercultural competence.

In relation to the cultural context in which the students live before joining university, the results indicated that students with multicultural experiences had significantly higher mean score in intercultural competence than those from bicultural or monocultural settings. This means that respondents' mean scores on the overall intercultural competence as well as on its subscales were found to be higher for students from multicultural experiences than those respondents from bicultural and mono-cultural backgrounds. This result aligns with several earlier studies (e.g., Deardorff 2011; Gonzales, 2017; Schwarzenthal et al., 2020), which demonstrated that respondents from multicultural experiences typically have higher level of intercultural competence than those from bicultural and monoculture backgrounds. Being exposed to multiple cultures tends to enhance one's ability to interact competently in intercultural situations. Multicultural experiences appear to provide a more robust foundation for developing intercultural skills as compared to bicultural or monoculture experiences. In the Ethiopian context, this implies that students' who have had opportunities to interact with various ethnic groups, show openness to diverse experiences, actively engage in cultural dialogues, and are eager to learn different languages are likely to excel in understanding and interacting with people from various cultural backgrounds. This, in turn, helps to cultivate better intercultural competence.

Chapter 6

6. Summary, Conclusion and Implications

This section presents summary, conclusion, as well as the theoretical, practical, and policy implications of the study. It also highlights the study's limitations and suggests potential directions for future research.

6.1. Summary

This study aimed to investigate the role of social intelligence, the big five personality traits, and psychological adjustments in relation to intercultural competence of university students. The participants of the study were drawn from Ambo University, Wollega University, Haramaya University, and Bule Hora University using proportionate stratified random sampling. This study used a correlational research design, in which only quantitative data were collected and analysed using SEM, regression analyses, MANOVA, exploratory and confirmatory factor analyses, and correlation.

The results of this study indicated that university students' intercultural competence was accounted for by social intelligence, the big five personality traits, and psychological adjustment, both individually and in combination. The greatest amount of variance in students' intercultural competence was explained by the combined effects of extraversion, conscientiousness, openness, agreeableness, social intelligence, and psychological adjustment. When examining factors that influence intercultural competence, psychological adjustment accounts for the most significant variance, whereas the Big Five personality contributes the least. Among the Big Five personality traits, agreeableness has the highest significant impact on university students' intercultural competence, while neuroticism does not have a notable effect. When comparing students' class year, linguistic profile, and parental education level, it is found that linguistic profile exhibits the greatest contribution,

while parental education levels have the smallest impact on explaining intercultural competence.

When taking into account the demographic characteristics of the respondents, the results show a statistically significant mean difference in the intercultural competence of university students based on their gender and the cultural context in which they lived in before their university admission. However, there is no significant difference in intercultural competencedue to family structure. In general, the results indicate that female respondents exhibit higher intercultural competency compared to their male counterparts. Additionally, respondents with multicultural experiences display greater intercultural competence than those with bicultural or monocultural backgrounds. Students who grew up in multicultural contexts reported the highest levels of intercultural competence compared to those from bicultural and monoculture backgrounds.

Therefore, to boost students' intercultural competence, it is suggested that families, schools, and universities need to create opportunities for students that enhance their social capital and adaptive skills. These include promoting multilingual experience, multicultural thinking, global mind set and enhancing their traits to be more productive and effective.

6.2. Conclusions

Based on the objectives of the study and the discussions that followed, the conclusions below were drawn.

This study highlighted various approaches through which university students are being equipped to enhance their intercultural competence, contributing positively to their personal growth and social advancement. The study findings revealed that a sizable portion of the respondents (75.7%) had low (36.7%) to moderate (39%) levels of intercultural competence, implying that there is a considerable gap in intercultural competence among university students. This suggests that while some students are effective in managing

intercultural interaction, there is a clear need for intercultural interaction, exposure to diverse cultural contexts, and the promotion of intercultural-dialogues that could help to improve students' overall level of intercultural competence, possibly reduce intercultural conflict, and foster more inclusive teaching-learning environments.

Similarly, a comparable percentage of participants (75.4%) demonstrated low (38.5%) to moderate (36.9%) level of social intelligence. This confirms that university students in Ethiopia encountered substantial difficulties with social information processing, social awareness, and social skills. The difficulties with intercultural conflict that are common in the Ethiopian university setting are probably made worse by the fact that university students possess predominantly low social intelligence. Therefore, enhancing social intelligence through training ought to be a primary focus to foster a more inclusive and harmonious campus environments.

The distribution of psychological adjustment levels among university students is skewed, with the majority (41.1%) exhibiting low levels of psychological adjustment, while only around a quarter (26.7%) demonstrate high levels. The remaining (32.2%) fall within the moderate range. This suggests that a significant proportion of the student population is struggling with psychological adjustment challenges, which could negatively impact their overall personal and social well-being, and ability to navigate the university environment effectively. Prioritising the factors causing the low psychological adjustment levels will help to create a more inclusive and supportive campus community where all students can flourish academically, socially and personally during their time in university as well as in the world of work.

The results indicate that majority of the study participants (51.5%) scored above the mean on the neuroticism personality trait. This implies that they view themselves as

emotionally unstable, have low emotional resilience, anxious, engage in negative thinking patterns, struggle with interpersonal relationship, and may exhibit impulsive or risk-taking behaviours as a way to cope with their heightened sensitivity and distress. The high level of neuroticism may be attributed to the competitive nature of the academic environment, coupled with potentially low levels of social intelligence and lack of effective diversity management on campus. Furthermore, majority of the university students see themselves as conscientiousness suggesting that they are well-organized, dependable, and driven to achieve their goals.

Similarly, over one-half (52.65%) of the university students scored high on the agreeableness trait. This suggests that the majority of them consider themselves as cooperative, sympathetic, and able to maintain harmonious relationships, which could have both positive and negative effects on their academic, social and personal developments. A slight majority, just over one-half (51.89%) of the participants, scored above the mean on the openness personality trait suggesting that the study participants see themselves as having a keen sense of intellectual curiosity, being imaginative and creative, being open to new experiences, being able to adjust to change, and showing tolerance for ambiguity. With regard to extraversion, almost half of the participants reported themselves as having characteristics of outgoing, assertive, energetic, enthusiastic, sociable beavior and willingness to take risks and seek new experiences.

The result of the study showed that almost all variables are positively and significantly correlated to intercultural competence, ranging from moderate to strong. However, the relationship between neuroticism trait and intercultural competence is negative. This could indicate that university students who possess higher levels of intercultural competence tend to have better social intelligence, psychological adjustment, and are more extraverted, open, agreeable, and conscientiousness. Aside from its importance, this study

made a valuable contribution to the existing literature on the intercultural competence of university students in Ethiopia.

Conceivably, the most crucial finding of this study is that the intercultural competence of university students is significantly influenced bypersonal, social, and cultural factors. This means that, psychological adjustment, openness, agreeableness, conscientiousness, and social intelligence are the direct and significant predictors of university students' intercultural competence. In this study, psychological adjustment emerged as the most prominent factor influencing students' intercultural competence directly.

In contrast, the direct effect of social intelligence on intercultural competence was weak, and extraversion trait did not have a direct impact. However, both social intelligence and extraversion had significant indirect effects on intercultural competence. This indicates that there was a significant mediation effect of psychological adjustment in the relationship between intercultural competence and the predictor variables (personality traits and social intelligence). It has been demonstrated that most of the variables in the path model, with the exception of neuroticism, had significant direct and/or indirect effects on university students' intercultural competence. This generally suggests that any intervention efforts by universities, families, policymakers, and program developers should focus on enhancing psychological adjustment, social intelligence, and relevant personality traits.

The study's results indicated that psychological adjustment, social intelligence, and personality traits together account for 81.1% of the variance in intercultural competence. When considered individually, psychological adjustment has the greatest impact, followed by social intelligence and the Big Five personality traits. This implies that in the Ethiopian context where intercultural competence is crucial for effective interaction among diverse cultural groups, the interplay and combination of various personal, contextual, and systemic factors are essential for enhancing university students' intercultural competence.

The study also revealed that students' linguistic profile was the strongest predictor of intercultural competence, followed by their class year and parental level of education. This means that students who stayed longer in universities, possess multilingual skills, and come from more educated families tend to have better intercultural competence compared to those who stayed shorter in universities, have only bilingual proficiency, and come from less educated family backgrounds.

The results of the study revealed the existence of sex differences in intercultural competence, in favour of female participants. This could partly be attributed to the fact that female students in the Ethiopian context tend to exhibit less ethnocentrism, possess stronger interpersonal and communication skills, have a lower tendency to engage in conflicts, and maintain a more positive attitude towards multiculturalism compared to their male counterparts. With respect to cultural contexts the students lived in before attending university, there were statistically significant differences in intercultural competence among individuals from monocultural, bicultural and multicultural backgrounds. Respondents with exposure to diverse cultural experiences demonstrated higher intercultural competence as compared to those from more homogeneous cultural backgrounds. This suggests that people's multicultural experiences play a crucial role in developing their intercultural competence, which is important for understanding and navigating cultural dynamics within the Ethiopia context. Finally, there is no significant difference in intercultural competence between students from intact families and those from non-intact families.

6.3. Implications of the study

6.3.1. Theoretical Implication of the study

The findings of this study offer theoretical insights into the conceptualization of intercultural competence and its related factors within the Ethiopian context. Firstly, the

findings of this study enhance our understanding for those seeking to develop and validate new instruments, in general and in intercultural competence, the Big Five personality traits, social intelligence, and psychological adjustment within Ethiopian contexts in particular, thereby making a theoretical contribution to these fields. Secondly, the newly validated measures of university students' intercultural competence, social intelligence, Big Five personality traits, and psychological adjustment can serve as good tools to be used with adolescents and youth more broadly, and specifically for university students, within our eco-cultural context.

Third, based on empirical data, the study's findings contribute to our understanding of university students' levels of intercultural competence, social intelligence, psychological adjustment, and personality profile. This will encourage further research in this area. Fourthly, the results of the study provide robust evidence of the significant role that psychological adjustment plays in shaping intercultural competence, aligning with theoretical models that highlight the reciprocal relationship between psychological adaptation and the development of intercultural competence. Fifthly, the study highlights the integration of psychological adjustment, social intelligence, personality traits, language skills, and cultural experience in the effort to explain and better understand intercultural competence. This aligns with theoretical frameworks that show how university students' intercultural competence is shaped by systemic factors, individual factors and change-related factors. Finally, studying intercultural competence and its related factors requires a thorough, interdisciplinary approach that integrates various theories and research methods. The complexity of intercultural experiences has often led to a fragmented understanding among intercultural competence researchers, cross-cultural psychologists, and intercultural educators. To address this, these experts should aim to contextualize their research and develop a cohesive model that offers both practical and theoretical insights.

6.3.2. Practical Implications of the study

Based on the study's findings and discussion, the following practical recommendations were made.

The study's findings will be useful to researchers, academics interested in the validation and adaptation of instruments, university communities, schools, parents, students, policy makers, and practitioners working on the intercultural competence of university students and related factors. For example, local researchers and academics interested in this area can save time and money by using a reliable and valid intercultural competence scale that has been translated into their local language. Additionally, students and scholars in this field will gain insight into the basic process of adapting research instruments, enabling them to modify and validate tools developed elsewhere for use in their own local contexts.

The findings show that most participants lack intercultural competence, social intelligence, and psychological adjustment, which hamper collaboration, worsen ethnic tensions, and limit future professional opportunities in an increasingly globalized world. To address this, students should seek diverse cultural experiences, universities should add intercultural training to their curricula, parents should encourage multicultural engagement, policy makers should foster inclusive educational policies, and the government should invest in cultural exchange programs. Additionally, students and stakeholders will gain valuable insights from these results, understanding the key factors associated to emerging adulthood's intercultural competence. This means that this findings will help university students recognize that their personal characteristics (i.e., personality traits & social intelligence), systemic factors, change process (i.e., psychological adjustment), and demographic factors (i.e., gender, language background, academic year, parental education & cultural experiences) all play a crucial role in shaping their intercultural competence.

6.3.3. Policy Recommendations

The need for curriculum development and revision. The study results show that university students exhibit low levels of intercultural competence, social intelligence, and psychological adjustment. Therefore, policymakers should advocate for the integration of intercultural competence, social intelligence, and psychological adjustment into the university curriculum. This includes designing courses and workshops that focus on these areas to better prepare students for a multicultural environment.

The need for training program. One of the core missions of higher education institutions in Ethiopia is to foster a democratic culture, promote effective intercultural interactions, encourage tolerance, and support peaceful conflict resolution (FDRE, 1994). However, this study reveals that most students currently exhibit low levels of intercultural skills, social intelligence, and psychological adjustment. This highlights the need for universities to establish training programs for students that focus on intercultural dialogue, diversity management, social intelligence, and psychological adaptation. By doing so, they can enhance students' intercultural competence, social capital, and adaptation skills, aligning with their educational mission and addressing existing gaps.

The need for supportive services to improve university students' intercultural competence, social capital and psychological resilience. Universities should provide counselling and guidance to address cultural adjustment issues, hold workshops and training sessions to improve intercultural interactions and social intelligence, set up mentorship programs for individualised support, create peer support networks for shared learning, and provide educational resources on cultural awareness. Together, these supportive services aim to create safe and nurturing environment that supports students in overcoming challenges to intercultural competency and equips them with the skills necessary to thrive in a diverse academic environment and in the workforce once they graduate.

In a conflict-ridden environment, such as in the Ethiopian university setting where federal police oversee the situation due to significant intercultural tensions among students, it is crucial for higher educational institutions to thoroughly understand the root causes of these conflicts and adopt effective intercultural conflict resolution strategies. Consequently, policymakers and university curriculum developers should integrate intercultural competence and its underlying factors into their policies, strategic planning, and educational programs.

The need for developing or adapting culturally sound, valid, and reliable measurement scales for intercultural competence and associated factors is crucial for all Ethiopian universities. Thus, university experts, psychologists, and relevant professionals should create or adapt culturally appropriate, valid, and reliable measurement scales for intercultural competence and related factors. These scales must account for the diverse cultural backgrounds of students throughout the country. By developing effective tools, they enable precise assessments, targeted interventions, and customized curricula, thereby improving intercultural skills and fostering a more inclusive and supportive educational environment.

Generally, all stakeholders must work together to enhance university students' intercultural competence. Universities should provide support services, promote multicultural initiatives, and integrate relevant courses. Students should engage in these opportunities and focus on personal development. The Ministry of Education should mandate intercultural training in curricula and support related programs. Parents and the community should foster a welcoming environment that values diversity and offers practical cross-cultural experiences.

6.4. Limitations and Future Directions

Initially, this study focused on the level of intercultural competence among university students and its influencing factors, utilizing a purely quantitative approach. This may or may not fully capture the true nature of university students' intercultural competence and the

factors contributing to it. Therefore, future research could consider a mixed-methods approach that incorporates both qualitative and quantitative data to more comprehensively understand university students' level of intercultural competence and the associated factors. Secondly, the study did not encompass all university students in Ethiopia and its finding may not fully represent the entire student population in the country or within the specific study area. Thus, to enhance generalizability and enable meaningful comparisons, future studies should include participants from a larger number of universities across Ethiopia.

Thirdly, the present study focuses exclusively on personal factors, (i.e., the Big Five personality traits, social intelligence), change process (i.e., psychological adjustment), and certain demographic characteristics (i.e., language proficiency, cultural experiences, class year, parental education level, gender, and family structure). As a result, future studies should investigate additional variables that might be associated with intercultural competence. This expanded approach will help researchers identify other potential determinants and contribute to a more comprehensive view of intercultural competence.

Fourthly, the present study focused on university students who are in their emerging adulthood. Further investigation is required to determine whether these findings hold true for adolescent populations, including high school students and non-student adolescents from various socioeconomic backgrounds. Lastly, considering the impact of social media and globalization, the importance of intercultural interaction has become increasingly evident. This growing significance underscores the need for further research in this area. Hence, future researchers should focus on updating and refining the current tools and expanding their application to other languages. This will contribute to ensuring that these instruments remain valid and reliable across diverse ecological and cultural contexts.

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Appendixes

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

Appendix A; Data Collection Instruments

General Instruction

This questionnaire aims to collect information about university students' intercultural competence, social intelligence, psychological adjustment, and Big Five personality traits. As potential participants in this research, your honest responses are greatly appreciated and will be crucial for the study's success. The questionnaire is divided into five sections: demographic questions, items measuring social intelligence, items assessing intercultural competence, a psychological adjustment scale, and a Big Five personality inventory. Each section includes specific instructions, so please read them carefully and provides honest responses. Your answers will remain confidential and will only be used for research purposes. To maintain anonymity, you do not need to include your name. Thank you for your cooperation!

Part 1: Demographic information

For the following items put tick (√) mark where it represent you or circle the number and or write the answer on the space given to write.

1. Sex : Male ☐ Female ☐
2. Age: ☐
3. Class Year/batch: 1st ☐ 2nd ☐ 3rd ☐ 4th ☐ 5th ☐
4. University: Ambo ☐ Wollega ☐ Bule Hora ☐ Haramaya ☐

5. Linguistic Profile: Monolingual ☐ Bilingual ☐ Multilingual ☐

6. Nature of cultures lived before joining university:

   Monoculture ☐ Bicultural ☐ Multicultural ☐

7. Family structure: Intact ☐ Non-intact ☐

8. Parental Level of education; Please tick (√) in the box below the right alternative for both mother and fathers level of education

	Father	**Mother**
1. No formal education	☐	☐
2. Primary education	☐	☐
3. Junior Secondary education	☐	☐
4. Certificate/Diploma	☐	☐
5. Degree	☐	☐
6. Masters and Above	☐	☐

Statements	0	1	2	3	4	5

Part II: Intercultural Competence Scale

Direction: Below is a set of statements concerning intercultural competence/effectiveness. There are no rights or wrong answers. Please read them carefully and respond by ticking **(√)** under the number of your choice from the given alternatives. ***The scale 0-to-5, where 5 = Very High, 4 = High, 3 = Satisfactory, 2 = Poor, 1 = very poor and 0- Not all***

1. I demonstrate willingness to suspend judgment & appreciate the complexities of communicating and interacting interculturally						
2. I demonstrate willingness to earn other languages and cultures and interact with them						
3. I demonstrate willingness to deal with ethical implications of my choices (in terms of decisions, consequences, etc.)						
4. I demonstrate willingness to try to understand differences in the behaviours, values, attitudes, and styles of members of the University						
5. I demonstrate willingness to show interest in new cultural aspects (e.g., to understand the values, history, etc.).						
6. I demonstrate willingness to deal with different ways of perceiving, expressing, interacting, and behaving						
7. I demonstrate willingness to adapt my behaviour to communicate appropriately in the University with people from varied background (e.g., in non-verbal and other behavioural areas, as needed for different situations).						
8. I demonstrate flexibility when interacting with persons from other cultures						
9. I demonstrate willingness to take on various roles appropriate to different situations (e.g. in the classroom)						
10. I have two or more cultural frames of references and thus I feel positive about cultural differences						
11. I realized the importance of responses by others to my own ethnic identity						
12. I realized the importance of my choices and their consequences(which make me more or less acceptable by members of other cultures						
13. I realized the importance of my personal values and ethics that affect my approach to ethical dilemmas and resolutions						
14. I realized the importance of how members of other cultures viewed me and why						
15. I realized the importance of Varying cultural styles and language use and their effect in their social and study situations						
16. I realized the importance of dangers of generalizing individual behaviours as representative of the whole culture/ethnic group						
17. I realized the importance of how others perceived me as communicator in intercultural context						
18. I could cite a definition of culture and describe its components and complexities						
19. I know essential norms in the University (e.g., greetings, dress, behaviours, etc.)						
20. I can contrast important aspects of my culture with other Ethiopian culture						
21. I recognize signs of culture stress and some strategies for overcoming it						
22. I can contrast my own behaviours with people from other ethnicities in important areas (e.g., social interactions, basic routines, communication behaviour, etc.)						
23. I can cite important historical and socio-political factors that shape my own culture and popular Ethiopian culture						
24. I can cite various learning processes and strategies for learning and living at university						
25. I could describe interactional behaviours common among Ethiopians in social and professional areas (e.g., family roles, team work, problem solving, etc.)						
26. I demonstrate willingness to learn from others, their language, and their culture						
27. I demonstrate willingness to interact with people from other ethnicities						
28. I recognize that people from other cultures do not necessarily have same values and goals as people from my own culture						
29. I demonstrate willingness to try to communicate in English or other language						

and behave in appropriate ways						
30. I know verbal and non-verbal behaviours vary across cultures and all forms of behaviour are worthy of respect						

Part III: Big five Personality Scale

Direction: Please read each of the following statements carefully and for each item think about your Personality and then, **tick (√)** one of the five alternative numbers that best describes how agrees or disagree with the statement about yourself: ***1 = Strongly Disagree, 2 = Disagree, 3 = undecided, 4=Agree, 5 = Strongly Agree***

Statements	1	2	3	4	5
1. I am often nervous, fearful, and anxious, and I worry that something might go wrong					
2. I am easily offended and I often feel angry and bitter; even small details may upset me					
3. I often feel unhappy and lonely.					
4. I feel uncomfortable around other people fearing that I will do something inappropriate.					
5. I do things that I regret later					
6. I often feel helpless and indecisive, especially in complicated situations.					
7. I enjoy meeting and associating with a lot of people.					
8. I do not hesitate to express my opinions and I know how to assert my rights;					
9. I often feel with a full of energy					
10. I crave new experiences and excitement.					
11. I have a deep appreciation for fine arts and beauty.					
12. I find my feelings to be very important in my life and I pay a lot of attention to them.					
13. I love novelty and variety					
14. I am intellectually curious and I have a wide range of interests					
15. I am tolerant of other people's lifestyles and opinions.					
16. I trust people and I believe that everyone is honest and has good intentions most of the time					
17. I am honest and sincere in every situation.					
18. I am caring and attentive when it comes to other people.					
19. I am a lenient person who does not like to argue; I forgive easily.					
20. I do not want to be in the centre of attention.					
21. I believe that every person deserves respect.					
22. I am sensible and competent;					
23. I want everything to be in its right place					
24. I am a reliable person, who values ethical principles;					
25. I know for certain what I want to accomplish and I work hard for it					
26. I consider things carefully before acting or deciding					

Part IV: Social Intelligence Scale

Direction: Please read each of the following statements carefully and for each item think about your social capital and then, **tick (√)** one of the five alternative numbers that best

describes how agrees or disagree with the statement about your social intelligence: 1 = Strongly Disagree, 2 = Disagree, 3 = undecided, 4=Agree, 5 = Strongly Agree

Statement	1	2	3	4	5
1. I know how my actions will make others feel					
2. I understand other peoples' feeling					
3. I understand others' wishes					
4. I can often understand what others are trying to accomplish without the need for them to say anything					
5. I can predict how others will react to my behaviour					
6. I often feel uncertain around new people who I don't know					
7. I am good at entering new situations and meeting people for the first time					
8. I have a hard time getting with other people					
9. It takes a long time for me to get to know others well					
10. I frequently have problems of finding good conversion topics					
11. I often feel that it is difficult to understand others' choices					
12. People often Surprise me with the things they do					
13. Other people become angry with me without me being able to explain why					
14. It seems as though people are often angry or irritated with me when I say what I think					
15. I find people unpredictable					
16. I have often hurt others without realizing it					
17. I am often surprised by others reactions to what I do					

Part V: Psychological adjustment scale

Direction: Please read each of the following statements carefully and for each item think about your psychological adjustment and then, **tick (√)** one of the five alternative numbers that best describes how agrees or disagree with the statement about your psychological adjustment in the campus: 1 = Strongly Disagree, 2 = Disagree, 3 = undecided, 4=Agree, 5 = Strongly Agree

Statements	**1**	**2**	**3**	**4**	**5**
1. I have adequate knowledge with regard to the culture of this country.					
2. I am confident in dealing with others in this new environment.					
3. I can continue living as usual in this new environment.					
4. I am confident to perform my academic responsibilities in this University.					
5. I am satisfied with the way I live my life in this University					

6. I seldom feel worry about things that I do not know since I arrived here.					
7. I rarely feel impatient when dealing with people from diverse cultural background.					
8. I hardly ever feel depressed living in this University.					
9. I can move freely in this university without feeling of anxiety/unsecure.					
10. I am able to involve in any activity that I like					
11. I am able to find my way around in this University.					
12. I can perform my academic assignments effectively in this University.					

Appendix B; Amharic Version

አዲስ አበባ ዩኒቨርሲት

የትምህርት እና ባህሪ ጥናት ኮሌጅ

የሳይኮሎጂ ትምህርት ቤት

ለዩኒቨርሲቲ ተማሪዎች የተዘጋጀ የጽሑፍ መጠይቅ

<u>አጠቃላይ መመሪያ</u>

የዚህ መጠይቅ ዋና አላማ የዩኒቨርሲቲ ተማሪዎች የብዝሃ ባህል የተግባቦት ብቃት፤ማህበራዊ ብልህነት፤ የስነ-ልቦናዊ መመቻቸትንና የስብዕና መረጃ መሰብሰብ ነዉ።በዚህ ጥናት ላይ ተሳታፊ ሊሆኑ የሚችሉ እንደመሆንዎዉ መጠን በሐቀኝነት የሚትሰጡት ምላሽ በእጅጉ የሚደነቅ ከመሆኑም በላይ ለጥናቱ ስኬት ወሳኝ ይሆናል።ጥያቄው በአምስት ክፍሎች ተከፋፍሏል። እነርሱም የግል መረጃ መለኪያ፣ የብዝሃ ባህል ተግባቦት ብቃት መለኪያ፤ ማህበራዊ ብልህነት የሚለኩ ፣ የስነ-ልቦናዊ መመቻቸት መለኪያ እና የስብዕና መረጃ መሰብሰብ መለኪያ ናቸዉ።። እያንዳንዱ ክፍል የተወሰኑ መመሪያዎችን ይዟል፤ ስለዚህ እባኮዎ እያንዳንዱን ጥያቄ በጥንቃቄ በማንበብ በሐቀኝነት መልስ ይሰጡልን። መልሰዎ

ምሥጢራዊ ሆኖ የሚቀጥል ከመሆኑም በላይ ለምርምር ብቻ ያገለግላል። ማንትዎ እንዳይገለጽ ስምዎን ማካተት አያስፈልግህም። ባደረጉልን ትብብር በቅድም እናመሰግናለን!

ክፍል አንድ- አጠቃላይ መረጃ

መመሪያ- ይህ ክፍል የርስዎን አጠቃላይ መረጃ በሚመለከት የቀረቡት መጠየቆች ናቸዉ፡፡ ጥያቄዎቹም በክፍት ቦታ እና በምርጫ መልክ የቀረቡ በመሆኑ እባክዎን እያንዳንዱን ጥያቀዎች በጥንቃቄ በማንበብ ክፍት የሆኑ ቦታዎችን በመሙላት ምርጫዎችን ደግሞ በሳጥኑ ዉስጥ ይህን (√) ምልክት በማዲረግ ምላሽ ይስጡ፡፡

1. ዕታ፡ ወንድ ሴት ☐
2. እድሜ፡ ☐
3. የዩኒቨርሲቲ ቆይታህ/ባች፡ 1ኛ 2ኛ ☐ኛ 4☐ 5ኛ ☐ ☐ ☐
4. ዩኒቨርሲቲ፤ አምቦ ወሌጋ☐ኩሌ ሆራ ሃሬ☐ ☐ ☐
5. በደንብ መናገር የሚችሉት የቋንቋ ብዛት፡

   አንደ ብቻ ሁለ☐ኛ ሶስት እና ከዛ በላ☐ ☐
6. ዩኒቨርሲቲ ከመግባትዎ ብፍት ያደጉበት ማህበራዊ-ባህላዊ ቅንብር፡

   አንደ ባህል ሀ☐ባህል ሶስት እና☐ላይ ያለበት ሌላ-------- ☐
7. የቤተሰብ መዋቅር፡ አባት እና እናት እናት ብ☐አባት ብቻ ሌላ-------- ☐
8. የወላጆች የትምህርት ደረጃ፡ እባኮትን ለእናት እና ለአባት የትምህርት ደረጃ ትክክለኛውን አማራጭ ከታች ባለው ሳጥን ውስጥ **(√)** ምልክት ያድርጉ

	አባት	**እናት**
መደበኛ ትምህርት አልተማሩም	☐	☐
የመጀመርያ ደረጃ ትምህርት	☐	☐
ሁለተኛ ደረጃ ትምህርት	☐	☐
የምስክር ወረቀት	☐	☐
የከለጅ ዲፕሎማ	☐	☐
የመጀመርያ ዲግሪ	☐	☐
ሁለተና ዲግሪ እና ከዛ በላይ	☐	☐

ክፍል ሁለት፡-ከሌሎች ባህላት ጋር የመግባቢያ ብቃት መለኪያ

<u>መመርያ</u>፡ የሚከተሉትን 0/ነገሮች በማንበብ ለራስዎ/ሽ የሚትሰጡትን የባህል ብዝሃነት ብቃትህን/ሽን ግንዛቤ ዉስጥ በማስገባት ከቀረቡት እያንዳንዱ ስድስት አማራጮች እርስዎን በይበልጥ የሚገልፀዎን የስምምነት ደረጃ ሀሳብ የያዘዉን ቁጥር (√) ምልክት በማድረግ ለእያንዳንዱ አርፍተ ነገር መልስ ይስጡ፡፡ **0 = የለም ማለት ይቻላል 1 = በጣም ዝቀተኛ 2 = ዝቅተኛ 3 = አጥጋቢ 4 = ከፍተኛ 5 = በጣም ከፍተኛ**

አረፍተ ነገረ	**0**	**1**	**2**	**3**	**4**	**5**

1. ወስብስብ የሆኑ ተግባቦትን እና የባህል ብዝሃነት መሰተጋበርን በማድነቅ ፍርድ ላለመስጠት ፍቃደኝነቴን እገልጻለሁ						
2. የሌሎችን ቋንቋ እና ባህል ለመማርና ለማወቅ ከእነሱ ጋር ለመነጋገር ፍቃደኝነቴን አሳያለሁ.						
3. ፍላጎቴን ለምሳሌ ዉሳኔየንና ዉጤቱን ስነምግባራዊ እንድምታዉን በጠበቀ መልኩ ለመነጋጋር ፍቃደኝነቴን አሳያለሁ።						
4. ዩኒቨርሲቲዉን ማህበረሰብ ባህሪያት፤ እሴት፣ አመለካከት እና አኗኗር ዜይቤ ልዩነት ለመረዳት ፍቃደኝነተን አሳያለሁ						
5. አዳዲስ ባህላዊ ገጽታዎችን (ለምሳሌ እሴቶቹ ፤ ታሪክ፣ ወዘተ) ለመቀበል ፍቃደኝነተን አሳያለሁ።						
6. የተለያዩ የማስተዋል፤የመግለፅ፤ መስተጋብር እና ባህሪ ከምያሳዩት ስዎች ጋር ለመስራት ፍቃደኝነተን አሳያለሁ)						
7. እንደአስፈላጊነቱ የተለያዩ ዳራ/የአኗኗር ዜይቤ ካላቸዉ የዩኒቨርሲቲ ማህበረሰብ ጋር ባህሪዬን አመጣጥኜ ተገቢዉን መስተጋበር ለመፍጠር ፍቃደኛ መሆነን እገልጻለሁ።						
8. ከኔ የተለየ ባህል ካለዉ ሰዉ ጋር ስገናኝ ቶሎ ብዬ ለመግባባት እሞክራለሁ						
9. በተለያዩ ቦታ (ለምሳለ በክፍል ዉስጥ) ተገቢ የሆኑ የተለያዩ ኃላፊነቶችን ለመዉሰድ ፍቃደኝኔተን እገልጻለሁ።						
10. ሁለት እና ከዚያ በላይ የባህል ማጣቀሻዎች ስላሉኝ ለባህላዊ ልዩነቶች አዎንታዊ ስሜት ይሰማኛል።						
11. የዩኒቨርሲቲ ተማሪ ሁኜ ለሎች ለብሔር ማንነቴ የሚሰጡትን ምላሽ አስፈለግነት እረዳለሁ						
12. የምርጫዎቼና ዉጤቱ አስፈላጊነት እና ምንያይል በለሎች ዘንድ ያነሰ ወይም የተሻለ ተቀባይነት እንዲኖረኝ እንዳደረገ እረደለሁ						
13. የዩኒቨርሲት ተማሪ ሁኜ የስነምግባር ዉዝግብ እና የመብተ አቀራረቡን የሚጎዱ የግል ዕሴቶች እና ስነምግባር አስፈላግነት እረዳለሁ						
14. የዩኒቨርሲቲ ተማሪ ሁኜ ለሎች እንደት እንደሚሬዱኝ ፤ ለምን እንደሆነ እና አስፈላግነቱን እረዳለሁ						
15. የዩኒቨርሲት ተማሪ ሁኜ የባህል ብዝሃነት ዘይቤ እና ቋንቋ አጠቃቀም በማህበራዊ እና አካዳሚክ ነክ ላይ ያላቸዉን ተፅኖ አስፈላጊነት እረዳለሁ						
16. የዩኒቨርሲቲ ተማሪ ሁኜ የግለሰብ ባህሪ የመላዉ የዛ ባህል/ብሔር አባል ተደርጎ መደምደም አደገኛነትን እረዳለሁ						
17. ዩኒቨርሲቲ ተማሪ ሁኜ በባህላዊ ባሕሎች ውስጥ ሌሎች እንደ ተግባቢ የሚገነዘቡኝን አስፈላጊነት እገነዘባለሁ						
18. የባህል ትርጉም ፤ ክፍልፋዮቹን እና ውስብስብነቱን መግለፅ እችላለሁ						
19. በዩኒቨርሲቲ ውስጥ አስፈላጊ ደንቦችን (ለምሳሌ ሰላምታ፣ አለባበስ፣ ባህሪ፣ ወዘተ.) አውቃለሁ።						
20. የባህሌን ጠቃሚ ገጽታዎች ከለሎች የኢትዮጵያ ባህል ጋር ማነፃፀር እችላለሁ						
21. የባህል ጭንቀት ምልክቶችን እና እሱን ለመቀነስ/ለማስወገድ የምያስችሉ አንዳንድ ስልቶችን አውቃለ						
22. በአስፈላጊ ጉዳዮች (ለምሳሌ፤በማህበራዊ መስተጋበር፣ በመሰረታዊ ተግባራት፣ በግንኙነቶች ባህሪ፣ ወዘተ) የራሴን ባህሪያት በዩኒቨርሲቲ ውስጥ ካሉ ሌሎች ብሔር ብሔረሰቦች ጋር ማነፃፀር እችላለሁ						
23. የራሴን እና የለሎች የእትዮጵያዉያን ብሔር ብሔረሰብ ባህል የሚያጎለብቱ ጠቃሚ ታሪካዊ፤ ማህበራዊ እና ፖለቲካዊ ጎዳዮችን መጥቀስ እችላለሁ						
24. በዩኒቨርሲቲ ውስጥ ለመማር እና ለመኖር የተለያዩ የመማር ሂደቶችን እና ስልቶችን መጥቀስ እችላለሁ						
25. በእትዮጵያዉን ዘንድ የተለመዱ ማህበራዊ መስተጋብር ባህርያትን (ለምሳሌ የቤተሰብ ሚና፤ የቡድን ስራ፤ እና ችግር ፈች ክህሎቶች ወዘተ) መግለጽ እችላለሁ						
26. የሌሎችን ቋንቋ እና ባህል ለመማር ፍቃደኝነተን አሳያለሁ						
27. ከእነ ብሔር ካልሆኑ ሰዎች ጋር ለመግባባት ፍቃደኝነተን አሳያለሁ						
28. ከእነ የተለየ ባህል ያላቸዉ ሰዎች የግድ ከራሴ ባህል ጋር ተመሳሳይ እሴት እና ግብ ሊኖራቸዉ እንደማይችል እገነዘባለሁ						
29. ከሌሎች ጋር ያለኝን ግንኙነት በተገቢዉ ሁኔታ ለመምራት በአማርኛ/እንግሊዘኛ ወይም						

በሚችሉት ቋንቋ ለመግባባት ለመሞከር ፍቃደኝነተን አሳያለሁ						
30. በቃልም ሆነ ያለ ቃል የምገለጹ ባህሪያት እንደየ ባህሉ እንደሚለያዩ አዉቃለሁ እናም ሁሉም አይነት ባህሪ ክብር ያገባቸዋል						

ክፍል ሶስት፡ የስብዕና መለኪያ ልኬት

<u>መመሪያ፡</u> እባክዎን እያንዳንዱን የሚከተሉትን ዐ/ነገሮች በጥንቃቄ በማንበብ ስለራዎ ስብዕና ግንዛቤ ዉስጥ በማስገባት ከቀረቡት አምስት (5) አማራጮች እንደት እንደሚስማማህ/ሽ ወይም እንደማይስማማህ/ሽ ከምገልጹት አማራጮቾች ይህን (√) ምልክት በማድረግ መልስ ይስጡ።

1 = በጣም አልስማማም 2 = አልስማማም 3 = መወሰን አልችልም፣

4= እስማማለሁ፣ 5 = በጣም እስማማለሁ

ተ.ቁ	ዐረፍተ ነገሮች	1	2	3	4	5
1.	ብዙ ግዜ እናደዳለሁ፤ እፈራለሁ፤እጨነቃለሁ፤ እና የሆነ ችግር ሊፈጠር ይችላል ብዬ እሰጋለሁ።					
2.	በቀላሉ ቅር ይለኛል፤ብዙግዜም የቁጣ እና መራራነት ስሜት ይሰማኛል፤ ትናንሽ ነገሮች እንኳን ያናዲዱኛል፡					
3.	ብዙ ግዜ ደስታ የማጣት እና የብቸኝነት ስሜት ይሰማኛል።					
4.	የተሰሳተ ነገር አደርጋለሁ ብዬ ከመስጋት የተነሳ በለሎች ዘንድ ምቾት አይሰማኝም					
5.	በጎላብዙ የሚያስቆጨኝን/የምጸጸትባቸዉን ነገሮች አደርጋለሁ።					
6.	ብዙ ግዜ በተወሳሰበ ሁነታ ዉስጥ ስሆን ተስፋብስነት እና የመወሰን አቅመ ብስነት ይሰማኛል።					
7.	ከብዙ ሰዎች ጋር መገናኜት እና መግባባት ያስደስተኛል።					
8.	ያለምንም ፍራት ሀሳቤን የመግለፅ እና መብቴን እንደት ማስከበር እንዳለብኝ አዉቃለሁ።					
9.	ብዙ ግዜ ሙሉ አቅም እንዳላኝ ይሰማኛል።					
10.	አዳዲስ/ያልተለመዱ ልምዶች እና ደስታዎችን ማግኝት እፈልጋላሁ።					
11.	ለሥነ ጥበብ (ለምሳሌ ሙዝቃ፤ግጥም፤ኪነጥበብ ወዘቴ.) እና ዉበት ጥልቅ አድናቆት አለኝ።					
12.	በህይወቴ ዉስጥ ስሜቴ በጣም አስፈላጊ እንደሆነ አምናለሁ ለሱም ከፍተኛ ተኩረት አደርጋለሁ።					
13.	ያልተጠበቀ/ያልተለመደ እና የተለየ ነገሮችን እወዳለሁ።					
14.	ምሁራዊ የማወቅ ጉጉት/አቅም እና ጠለቅ ያለ ፍላጎት አለኝ።					
15.	ለለሎች አኗኗር ዘይቤ እና አመለካከት እዉቅና እሰጣለሁ እንዲዉም ትዕግስት አለኝ።					
16.	በሰዎች ላይ እምነት አለኝ እናም ብዙግዜ ሁሉም ሰው ሐቀኛና ጥሩ ዓላማ እንዳለው አምናለሁ።					
17.	በሁሉም ቦታ መልካም እና ግልፅ ነኝ።					
18.	ለሌላ ሰዉ በጣም እጠነቀቃለሁ እንዲሁም ትኩረትም እሰጣለሁ					
19.	መጨቃጨቅ የማልወድ እና በቀላሉ ይቅር የምል ሰዉ ነኝ።					
20.	የሁሉም ሰዉ ትኩረት መሳብ አልፈልግም።					
21.	ሁልም ሰዉ ክብር ይገበዋል ብዬ አምናለሁ።					
22.	አስተዋይ እና ተወዳዳሪ ነኝ።					
23.	ሁሉም ነገር በትክክለኛው ቦታ ላይ እንዲሆን እፈልጋለሁ።					
24.	ለታማኝነት እና ለመልካም ለስነምግባር መርሆዎች ዋጋ የምሰጥ ሰው ነኝ።					
25.	ምን መስራት እነዳለብኝ ጠንቅቄ አውቃለሁ ለእሱም ጠንክሬ እሰራለሁ።					
26.	ዉሳኔ ከመወሰኔና እርምጃ ከመዉሰዴ በፊት ነገሮችን በጥንቃቀ አየዋለሁ።					

ክፍል አራት፡ የማህበራዊ ብልህነት/እዉቀት መለኪያ

<u>መመሪያ፡</u> እባክዎን እያንዳንዱን የሚከተሉትን ዐ/ነገሮች በጥንቃቄ በማንበብ ስለራስዎ ማህበራዊ ብልህነት/ችሎታ ግንዛቤ ዉስጥ በማስገባት ከቀረቡት አምስት (5) አማራጮች እርስዎን በምገልፀዉ ላይ ይህን (√) ምልክት በማድረግ መልስ ይስጡ።

1 = በጣም አልስማማም 2 = አልስማማም 3 = መወሰን አልችልም፣

4= እስማማለሁ፣ 5 = በጣም እስማማለሁ

ተ.ቁ	ዐረፍተ ነገር	አማራጭ				
		1	2	3	4	5
1.	ድርጊቴ በለሎች ላይ የፈሚጥረዉን ስሜት አዉቃለሁ።					
2.	የሌሎችን ስሜት እረዳለሁ።					
3.	የሌሎችን ምኞት እረደለሁ።					
4.	ብዙ ጊዜ ሌሎች ምንም ነገር መናገር ሳያስፈልጋቸው ለማከናወን የሚሞክሩትን መረዳት እችላለሁ።					
5.	ሌሎች ስለኔ ባህሪ ምን ምላሽ እንደሚሰጡ መተንበይ እችላለሁ።					
6.	በማህበራዊ ጉዳዮች ዉስጥ በቀላሉ እላመዳለሁ።					
7.	አዳዲስ ሁኔታዎች ዉስጥ በመግባት ለመጀመሪያ ጊዜ ሰዎችን በማግኜት ላይ ጥሩ ነኝ።					
8.	ከማላዉቃቸዉ አዳዲስ ሰዎች ጋር ስሆን ብዙ ግዜ እርግጠኝ አለመሆን ይሰማኛል።					
9.	ከሌሎች ሰዎች ጋር መገናኘት በጣም ይከብደኛል።					
10.	ሌሎችን በደንብ ለማወቅ ረጅም ጊዜ ይወስድብኛል።					
11.	ብዙ ጊዜ ጥሩ የመነጋገርያ አጀንዳዎች/ርዕሶችን ማግኘት ይቸግረኛል።					
12.	ብዙ ጊዜ የሌሎችን ምርጫ ለመረዳት አስቸጋሪ እንደሆነ ይሰማኛል።					
13.	ብዙ ጊዜ ሰዎች በሚየደርጉት ነገር ያስደንቁኛል።					
14.	ለምን እንደሆነ የማስረዳት እድል ሳይሰጡኝ ሰዎች ይነደዱብኛል።					
15.	የማስበውን ነገር ስናገር ብዙ ጊዜ ሰዎች የሚናደዱብኝ ወይም የሚያበሳጩብኝ ይመስለኛል					
16.	ሰዎችን የማይገመቱ/ያልተጠበቁ ሆኖ አግኝቻቸዋለሁ።					
17.	ብዙ ጊዜ ሳላስተውለው ሌሎችን እጎዳለሁ					

ክፍል V: የስነ-ልቦናዊ መመቻቸት ልኬት

<u>መመሪያ፡</u> እባክዎን እያንዳንዱን የሚከተሉትን አረፍተ ነገሮች በጥንቃቄ በማንበብ ስለራስዎ የስነ-ልቦናዊ ባህርይ መመቻቸት ሁነታን ግንዛቤ ዉስጥ በማስገባት ከቀረቡት አምስት (5) አማራጮች እርስዎን ከምገልፁ በአንዱ አማራጭ ይህን (√) ምልክት በማድረግ ምረጡ።

1 = በጣም አልስማማም 2 = አልስማማም 3 = መወሰን አልችልም፣

4= እስማማለሁ፣ 5 = በጣም እስማማለሁ

ተ.ቁ.	አረፍተ ነገር	አማራጭ				
		1	2	3	4	5
1.	የዚህን ሀገር ባህል በተመለከተ በቂ እውቀት አለኝ።					
2.	በዚህ አዲስ አካባቢ ውስጥ ከሌሎች ጋር እንደምሰራ እርግጠኛ ነኝ።					
3.	በዚህ አዲስ አካባቢ ውስጥ እንደተለመደው መኖር መቀጠል እችላለሁ።					
4.	በዚህ ዪኒቨርሲቲ ዉስጥ የአካዳሚክ ኃላፊነቴን እንደምወጣ እርግጠኛ ነኝ።					

5.	በዚህ ዩኒቨርሲቲ ዉስጥ ሕይወቴን በምመራቤት ኑሮ ረክቻለሁ።					
6.	እዚህ ከደረስኩ በኋላ ስለማላውቃቸው ነገሮች መጨነቅ እምብዛም አይሰማኝም።					
7.	የተለያየ ባህል ካላቸው ሰዎች ጋር በምገናኝበት ጊዜ ትዕግስት ማጣት እምብዛም አይሰማኝም።					
8.	እዚህ ዩኒቨርሲቲ ዉስጥ በመኖሬ የጭንቀት መንፈስ አይሰማኝም።					
9.	እዚህ ዩኒቨርሲቲ ዉስጥ ያለጭንቀት/ያለደንነት ስጋት በነፃነት መንቀሳቀስ እችላለሁ።					
10.	በዚህ ዩኒቨርሲቲ በፈለኩት እንቅስቃሴ ውስጥ መሳተፍ እችላለሁ።					
11.	እዚህ ዩኒቨርሲቲ ዉስጥ የራሴን መንገድ መከተል እችላለሁ።					
12.	በዚህ ዩኒቨርሲቲ ዉስጥ የትምህት ስራዬን በብቃት ማከናወን እችላለሁ።					

Appendix C

Item-Total statistics of the measures after EFA Rotation

Item-Total Statistics for Intercultural competence after EFA rotation

Code	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
IC1	126.55	573.978	.478	.908
IC2	126.07	576.805	.465	.908
IC3	126.38	571.748	.476	.908
IC4	126.74	582.219	.343	.910
IC5	126.30	574.065	.449	.909
IC6	126.51	574.920	.440	.909
IC7	126.23	578.813	.437	.909
IC8	126.45	576.800	.455	.909
IC9	126.41	576.583	.451	.909
IC10	126.23	572.316	.461	.908
IC11	126.36	577.829	.355	.910
IC12	125.94	575.565	.459	.909
IC13	125.86	581.331	.388	.909
IC14	125.99	578.705	.411	.909
IC15	126.41	574.309	.482	.908
IC16	126.26	572.816	.487	.908
IC17	126.13	574.536	.483	.908
IC18	126.26	575.073	.475	.908
IC19	126.45	570.319	.530	.908
IC20	126.32	576.038	.474	.908
IC21	126.47	576.683	.421	.909
IC22	126.01	577.789	.434	.909
IC23	126.10	573.031	.504	.908
IC24	126.32	573.026	.488	.908
IC25	126.34	575.994	.480	.908

IC26	126.28	573.294	.495	.908
IC27	126.33	575.999	.451	.909
IC28	126.38	578.094	.410	.909
IC29	126.12	577.335	.465	.908
IC30	126.35	581.970	.383	.909
IC31	126.40	577.285	.435	.909
IC32	126.45	579.763	.372	.910
IC33	126.41	581.695	.347	.910
IC34	126.45	573.941	.466	.908
IC35	126.39	577.135	.422	.909
IC36	126.22	580.480	.419	.909
IC37	126.24	576.987	.467	.908

Item-Total Statistics for big five personality Traits after EFA rotation

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
P1	103.70	214.115	.237	.839
P2	103.80	217.425	.169	.841
P3	103.94	220.310	.086	.845
P4	103.74	214.940	.216	.840
P5	103.78	213.850	.258	.838
P6	103.65	214.442	.244	.839
P7	102.82	210.096	.408	.833
P8	102.53	210.856	.410	.833
P9	102.72	209.988	.434	.832
P10	102.80	213.362	.344	.835
P11	102.66	211.129	.400	.833
P12	102.43	210.570	.463	.832
P13	102.69	210.405	.423	.833
P14	102.75	211.613	.357	.835
P15	102.73	209.258	.440	.832
P16	103.00	209.684	.377	.834
P17	102.66	208.145	.477	.831
P18	102.61	210.991	.404	.833
P19	102.96	214.719	.265	.838
P20	102.66	210.034	.477	.831
P21	102.68	209.642	.477	.831
P22	102.79	213.395	.324	.836

P23	102.68	210.006	.460	.832
P24	102.50	212.857	.340	.835
P25	102.66	213.105	.357	.835
P26	102.39	212.166	.392	.834
P27	102.50	211.122	.438	.832
P28	102.47	212.746	.407	.833
P29	102.67	212.420	.403	.833
P30	102.43	213.943	.359	.835

Item-Total Statistics of Social Intelligence After EFA Rotation

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
SI1	58.54	192.228	.714	.901
SI2	58.31	189.327	.795	.899
SI3	58.60	193.554	.714	.901
SI4	58.36	188.774	.808	.898
SI5	57.40	218.481	.106	.914
SI6	57.33	214.637	.253	.911
SI7	57.23	215.648	.273	.911
SI8	57.22	216.554	.205	.912
SI9	57.24	215.369	.242	.911
SI10	57.33	214.587	.252	.911
SI11	57.24	215.387	.278	.911
SI12	58.41	189.780	.786	.899
SI13	58.34	200.449	.492	.907
SI14	58.45	198.757	.571	.905
SI15	58.54	192.813	.694	.902
SI16	58.28	191.744	.730	.901
SI17	58.43	198.499	.571	.905
SI18	58.30	201.373	.496	.907
SI19	58.57	191.820	.724	.901
SI20	58.35	188.694	.811	.898

Item-Total Statistics for Psychological adjustment after EFA

Code	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PsyA1	34.21	60.388	.505	.780
PsyA2	34.32	59.371	.597	.771
PsyA3	34.44	57.679	.672	.762
PsyA4	34.26	57.036	.676	.761
PsyA5	34.45	57.873	.647	.765
PsyA6	34.16	58.679	.621	.768
PsyA7	34.30	61.075	.499	.781
PsyA8	34.17	61.632	.474	.783
PsyA9	32.91	69.328	.160	.809
PsyA10	33.02	69.894	.135	.810
PsyA11	32.99	70.749	.097	.812
PsyA12	33.19	70.468	.106	.812

Appendix D

Rotated matrix of the Exploratory factor Analysis (EFA)

Rotated factor (Pattern and structural matrixes) extracted for the Amharic Version of ***Intercultural competence scale***

	Pattern matrixes Components					Structural matrixes Components			
	1	2	3	4	Items	1	2	3	4
IC24	.738				IC25	.698			
IC25	.727				IC24	.666			
IC23	.638				IC26	.631			
IC26	.612				IC23	.612			
IC18	.574				IC18	.595			
IC22	.557				IC22	.586			
IC19	.530				IC17	.566			
IC17	.498				IC21	.565			
IC21	.473				IC19	.561			
IC32	.453				IC32	.539			
IC27	.417				IC27	.529			
IC31	.402				IC31	.519			
IC16	.371				IC16	.501			
IC35	.368				IC35	.484			
IC39		.765			IC39		.718		
IC42		.695			IC41		.691		
IC41		.680			IC42		.687		
IC38		.624			IC38		.653		
IC37		.607			IC37		.616		
IC40		.596			IC43		.603		
IC43		.574			IC40		.564		
IC45		.433			IC45		.534		
IC3			.712		IC3			.693	
IC7			.639		IC1			.646	
IC1			.622		IC7			.631	
IC4			.622		IC6			.616	
IC6			.611		IC9			.611	
IC9			.597		IC5			.598	
IC5			.576		IC4			.571	
IC8			.512		IC8			.564	
IC2			.442		IC2			.530	
IC33			.418		IC33			.447	
IC13				.527	IC13				.562
IC12				.504	IC12				.546
IC11				.472	IC11				.499
IC14				.459	IC14				.496
IC10				.343	IC10				.418

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 12 iterations.

Rotated factor extracted for the Amharic Version of big five personality scale

	Pattern Matrix Component						Structure Matrix Components				
	1	2	3	4	5		1	2	3	4	5
P9	.691					P8	.697				
P8	.686					P9	.689				
P11	.672					P11	.651				
P7	.581					P13	.631				
P13	.556					P12	.608				
P10	.552					P7	.595				
P12	.523					P10	.550				
P4		.797				P4		.785			
P3		.751				P3		.758			
P2		.739				P2		.752			
P5		.733				P5		.719			
P6		.667				P1		.671			
P1		.653				P6		.667			
P27			.752			P27			.756		
P25			.698			P28			.702		
P28			.674			P25			.674		
P29			.669			P29			.664		
P26			.625			P26			.660		
P24			.562			P24			.585		
P30			.532			P30			.572		
P16				.675		P20				.673	
P19				.660		P16				.658	
P20				.600		P18				.643	
P18				.593		P17				.635	
P17				.543		P19				.606	
P14				.523		P14				.572	
P15				.424		P15				.536	
P22					.642	P22					.672
P23					.546	P23					.575
P21					.506	P21					.540

Extraction Method: Maximum Likelihood.
Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 10 iterations

Rotated factor-solution extracted for the Amharic Version Social Intelligence scale

Rotated Component matrix		
Component		
1	2	3

IP1	.968		
IP4	.945		
IP2	.942		
IP6	.933		
IP5	.879		
IP3	.839		
SS2		.965	
SS6		.951	
SS7		.905	
SS4		.894	
SS5		.877	
SS3		.855	
SA7			.831
SA6			.815
SA2			.810
SA3			.794
SA4			.675
SA5			.636
SA1			.611

Rotated Factor Matrixes Solution for the psychological adjustment scale

Rotated Component matrix			
	Factors		
Items	1	2	3
PsyA3	.887		
PsyA5	.881		
PsyA2	.712		
PsyA1	.601		
PsyA6		.845	
PsyA4		.840	
PsyA7		.757	
PsyA8		.530	
PsyA10			.788
PsyA11			.786
PsyA9			.701
PsyA12			.700

Extraction method; Principal Component Analysis
Rotation Method; Oblimin with Kaiser Normalization
Rotation converged in 5 iterations

Appendix E: Multivariate Normality

Assessment of normality (Group number 1)

Variable	Min	Max	skew	c.r.	kurtosis	c.r.

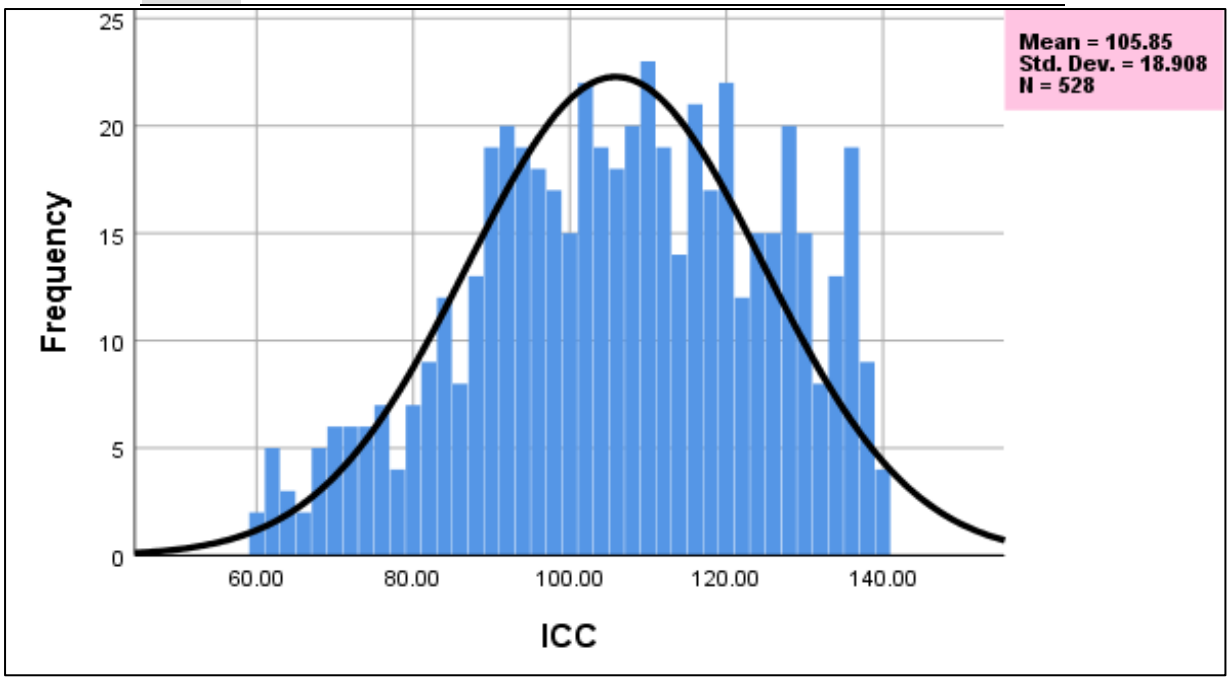
Variable	Min	Max	skew	c.r.	kurtosis	c.r.
Social intelligence	18.000	80.000	.108	1.010	.055	.260
Openness	8.000	35.000	.106	.998	-.157	-.735
Extraversion	4.000	20.000	-.421	-4.884	-.385	-1.806
Conscientiousness	6.000	30.000	-.359	-3.688	-.533	4.847
Agreeableness	3.000	15.000	-.429	-2.023	-.519	-2.436
Neuroticism	6.000	28.000	.248	-2.330	-.809	-3.793
Psychological adjustment	19.000	60.000	-.434	-4.072	-.358	-1.678
Intercultural-competence	60.000	140.000	-.254	-2.378	-.641	-3.006
Multivariate					3.902	4.811

Note: *The data is multivariate normal because the critical ratio value of 4.811 is less than 5.*

Appendix F

Univariate normality

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
ICC	.042	528	.650	.980	528	.920

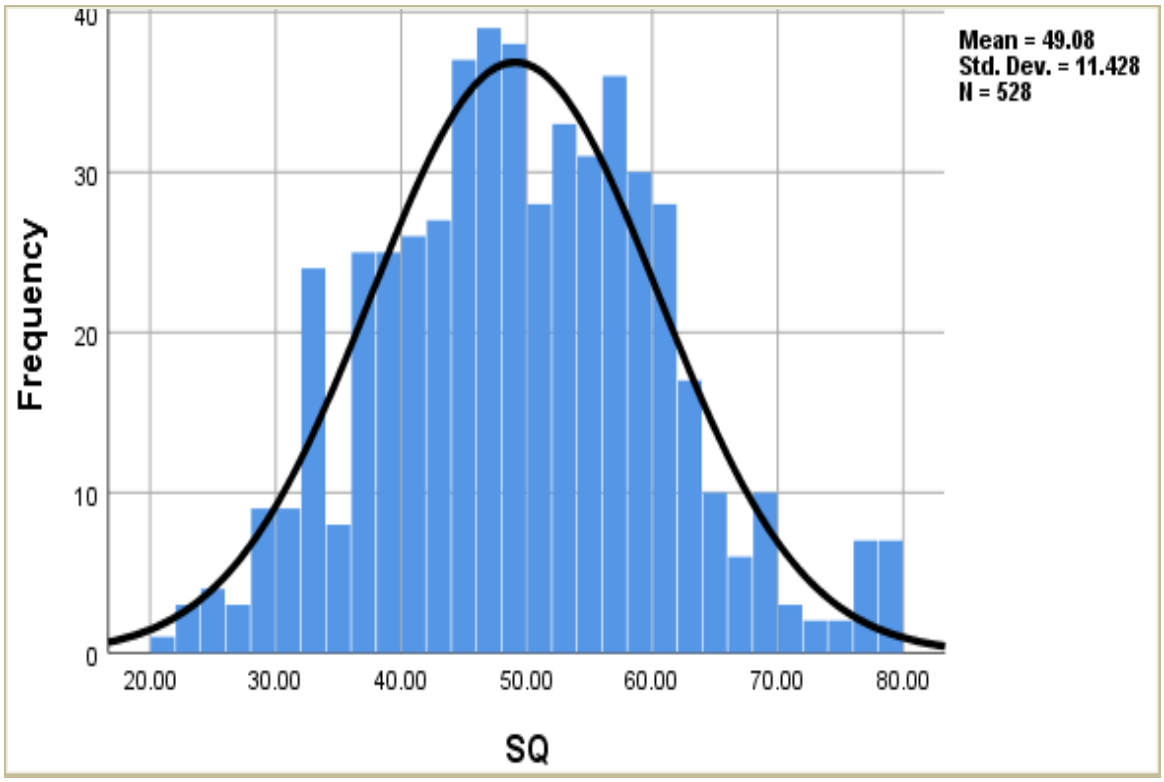


Social intelligence (SQ)	Kolmogorov-Smirnov[a]	Shapiro-Wilk

Statistic	df	Sig.	Statistic	Df	Sig.
.036	528	.094	.996	528	.191

a. Lilliefors Significance Correction

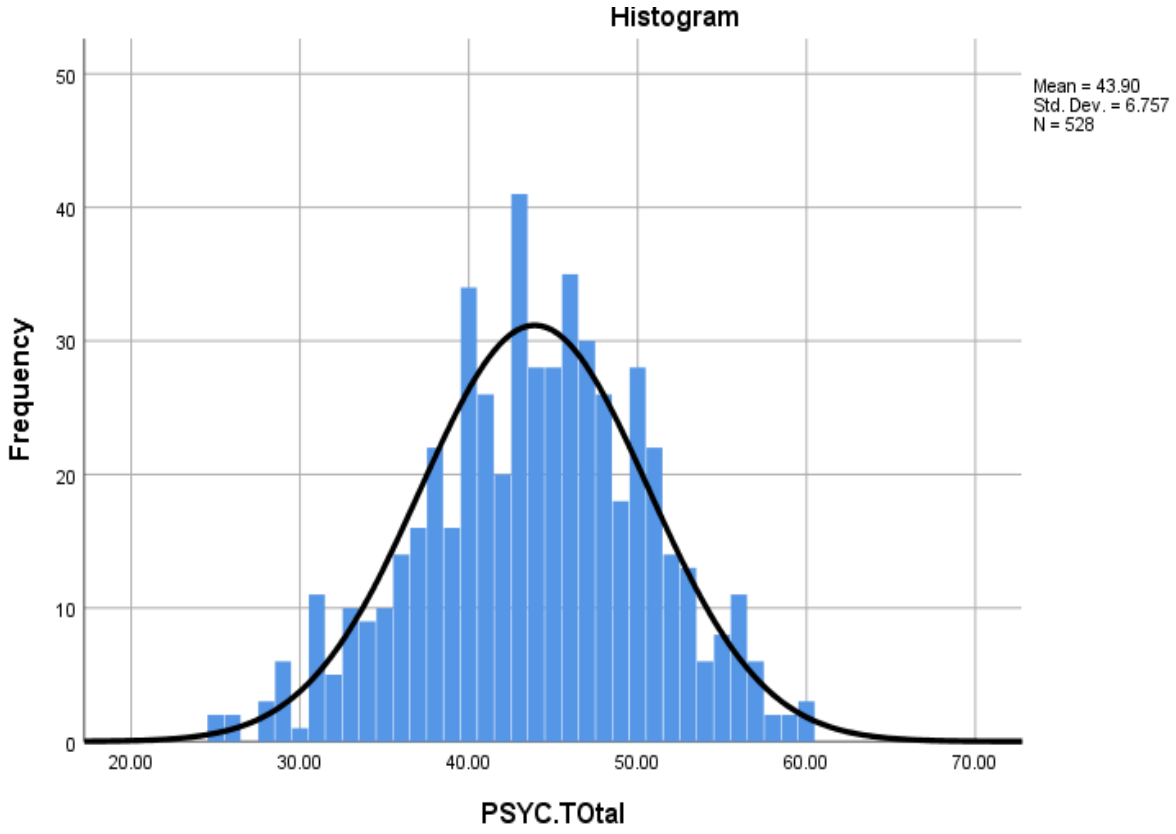
Social Intelligence (SQ)



Tests of Normality		
	Kolmogorov-Smirnov[a]	Shapiro-Wilk

	Statistic	df	Sig.	Statistic	df	Sig.
Psychological adjustment	.065	528	.034	.971	528	.101

a. Lilliefors Significance Correction



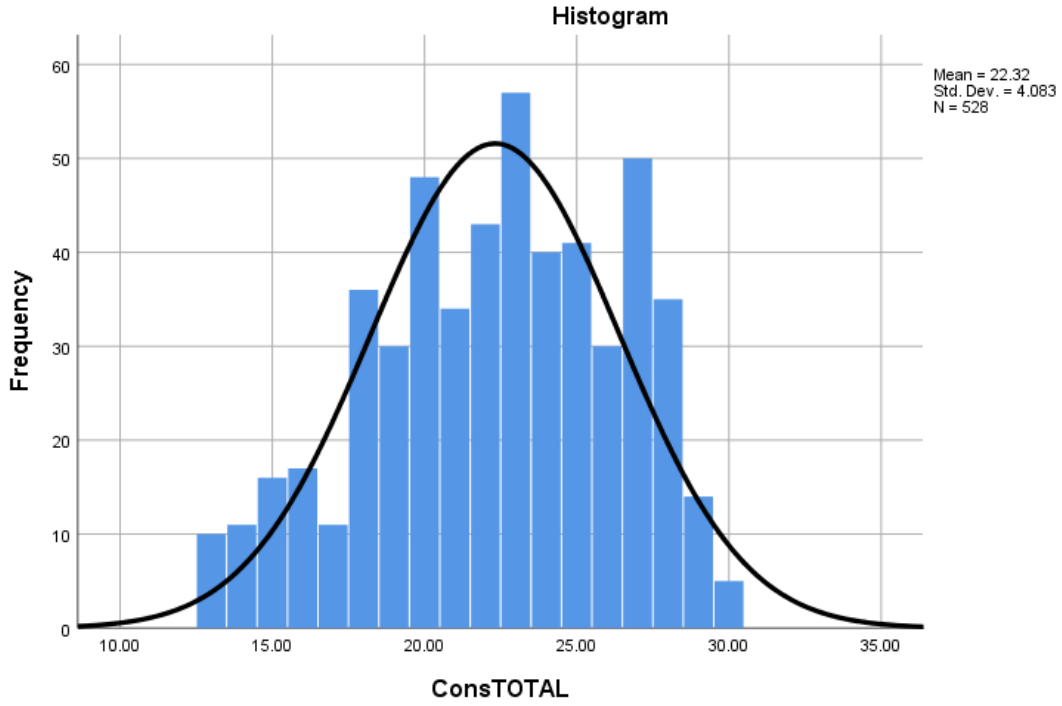
Tests of Normality

Conscientiousness	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.

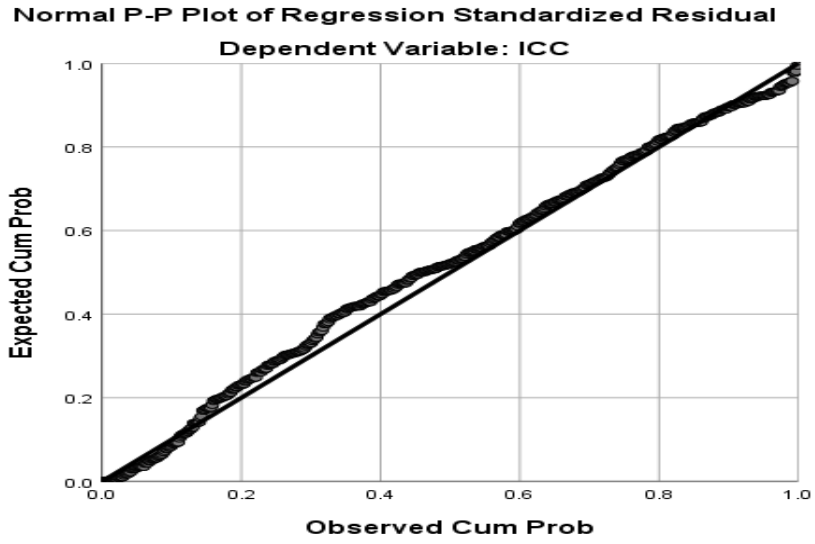
	.048	528	.069	.977	528	.100

This is a lower bound of the true significance.

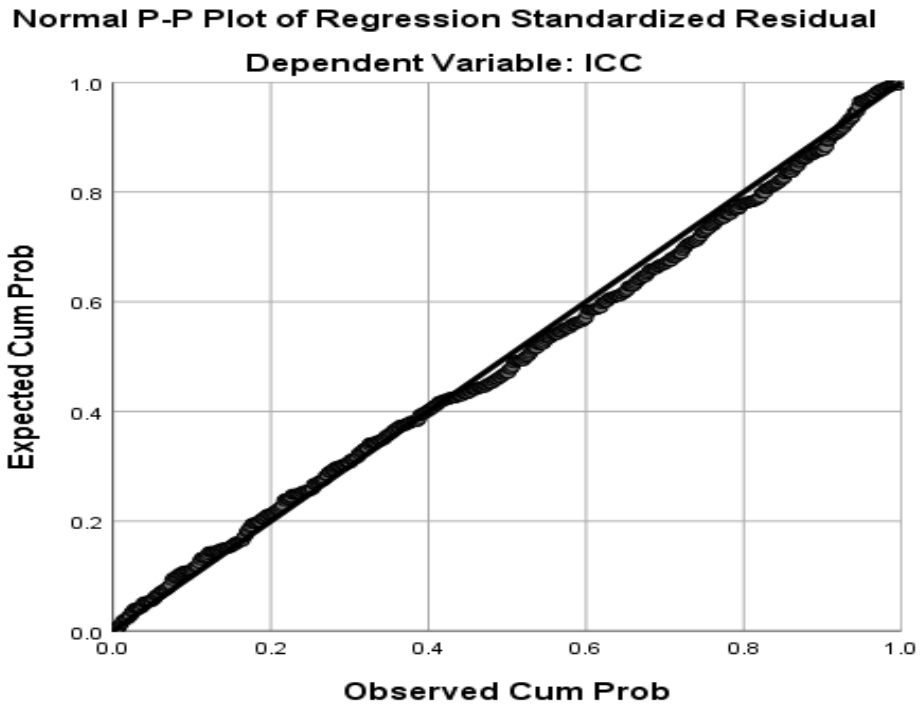
a. Lilliefors Significance Correction



Normal plot for social intelligence as predictors of intercultural competence



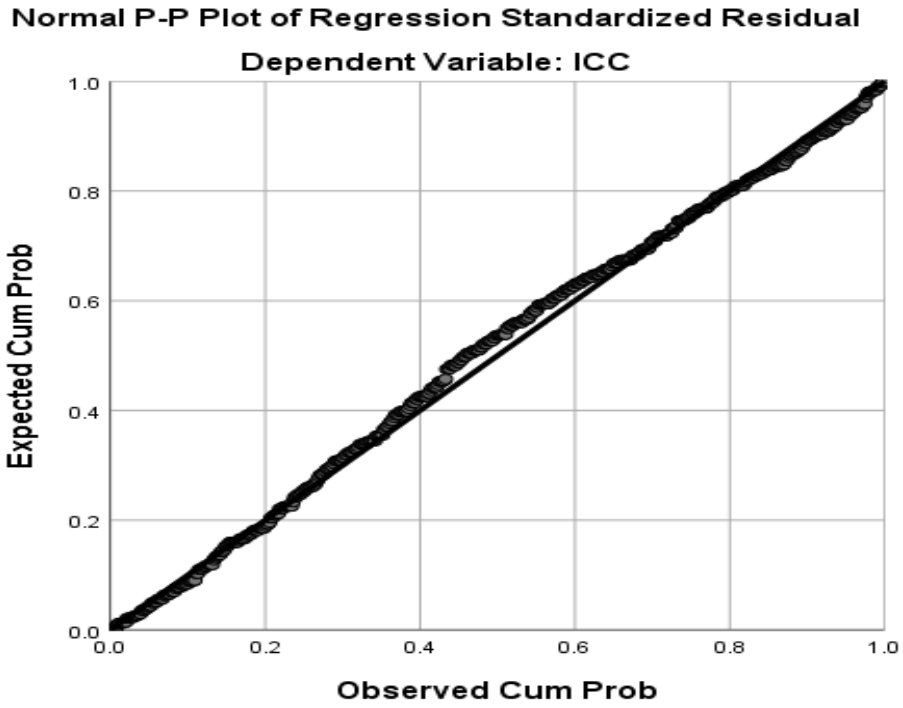
Normal plot for Psychological adjustment as predictors of intercultural competence



Normal plot for Extraversion personality trait as predictors of intercultural competence



Normal plot for Agreeableness personality trait as predictors of intercultural competence



Normal plot for Openness personality trait as predictors of intercultural competence



Normal plot for Conscientiousness personality trait as predictors of intercultural competence





Dependent variable: Intercultural competence (ICC)
Independent Variables: class year, Linguistic profiles and parental level of education

Appendix G

Modified Model Fit Summary for the SEM Path

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	32	3.827	4	.430	.957
Saturated model	36	.000	0		
Independence model	8	2149.663	28	.000	76.774

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.486	.998	.984	.111
Saturated model	.000	1.000		
Independence model	42.421	.415	.248	.323

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.998	.988	1.000	1.001	1.000
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.000	.000	.065	.859
Independence model	.379	.366	.393	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	67.827	68.939	204.438	236.438
Saturated model	72.000	73.251	225.687	261.687
Independence model	2165.663	2165.941	2199.816	2207.816

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	1307	1829
Independence model	11	12