



ADDIS ABABA UNIVERSITY

COLLEGE OF EDUCATION AND LANGUAGE STUDIES

SCHOOL OF PSYCHOLOGY

**ADAPTATION AND VALIDATION OF THE CAREER
ADAPT-ABILITY SCALE (CAAS) AMONG ADDIS ABABA
UNIVERSITY UNDERGRADUATE STUDENTS**

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UNDERGRADUATE STUDENTS**

BY

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College of Education and Language Studies

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Declaration

Hear-by, I declare that this research is my original work and that all source of materials used in this research have been duly acknowledged. I also declare that this research is not submitted to any other institution for the award of any academic degree, diploma or certificate.

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Examining Committee Approval page

This is to certify that this thesis prepared by Barkot Maeregu, entitled “**Adaptation and Validation of the Career Adapt-Ability Scale (CAAS) among Addis Ababa University Undergraduate Students**”, complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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Abstract

Career adaptability is a crucial psychological and social resource that enables university students to deal with employment related tasks, transitions and uncertainty of the constantly altering world of work. The Career Adapt-Ability Scale (CAAS), originally developed and validated by Mark Savickas and Erik Porfeli, has emerged as a well-established tool for evaluating important career resources. Even though CAAS has been validated across several countries and cultural contexts, there are limited evidence about its psychometric properties in Ethiopia. As a result, this research intended to adapt and validate the Amharic version of CAAS among undergraduate students at Addis Ababa University. A quantitative cross-sectional methodological study design was employed in 487 final year undergraduate students. Standard cross-cultural adaptation procedures which included forward translation, back translation, expert review and pilot testing were followed. The study results demonstrated good internal consistency reliability for the overall scale ($\alpha=.849$), while subscale reliability coefficients ranged from .835 to .858. Item-Level Content Validity Index (I-CVI) values ranged from .83 to 1.00, and the Scale-Level Content Validity Index (S-CVI) was .95. The factor analyses supported the original four-factor structure of the scale, consisting of concern, control, curiosity and confidence. The study concluded that the Amharic version of the CAAS demonstrated satisfactory reliability and validity for assessing career adaptability among Ethiopian undergraduate students.

Keyword: career adaptability, career Adapt-Ability scale, reliability, validity, undergraduate students

List of Acronyms and Abbreviations

AMOS: Analysis of Moment Structure

ASV: Average Shared Variance

AVE: Average Variance Extracted

CAAS: Career Adapt-Abilities Scale

CAAS-SF: Career Adapt-Abilities Scale- Short Form

CCT: Career Construction Theory

CFA: Confirmatory Factor Analysis

CFI-R: Career Future Inventory – revised

CGPA: Cumulative Grade Point Average

CoBE: College of Business and Economics

CSSAH: College of Social Sciences, Arts, and Humanities

CVI: Content Validity Index

EFA: Exploratory Factor Analysis

I-CVI: Item-level Content Validity Index

S-CVI: Scale-level Content Validity Index

SPSS: Statistical Package for Social Science

CHAPTER ONE

INTRODUCTION

1.1 Background of study

In the present world, characterized by sudden change in employment, technological enhancements, high competition for jobs, flexible employment structure, and restricted number of opportunities for job, has raised significant problems for individuals to make career determination and advancement. This effect is especially noticeable among students in higher education (Buchholz et al., 2009). Modern organizations are increasingly seeking individuals who can adjust to the current work landscape and possess the requisite skills (Jerab & Mabrouk, 2023). In today's rapidly evolving environment, the capacity to adapt within one's career has become crucial for effectively transitioning from university to the workforce (Savickas et al., 2009).

Developing strong career adaptability is a major move for students as they strive to reach their career aspirations (Korkmaz, 2023). Career adaptability skills are necessary for university students to adjust to the evolving job market and equip them with resilience and confidence to pursue their desired career paths. It gives individuals the required psychosocial resources needed for transitioning from school to work; as a result, it increases the opportunity to secure a suitable employment (Koen et al., 2012). Career adaptabilities refer to a person's ability to respond effectively to work-related challenges, and to be flexible in exploring new opportunities and making career transitions (Savickas & Porfeli, 2012). It is a concept that stands for individual's psychological and social resources that help individuals respond to social change and maintain harmony with their surrounding (Savickas & Porfeli, 2012). These resources are internal capacities that individuals draw upon to manage complicated challenges of related to developmental tasks, job transitions and work-related difficulties. Since these resources are psychological and social capabilities, they can be easily altered compared to personality traits (Creed et al., 2009).

Career construction theory (Savickas, 2005) hypothesized that personal growth is influenced by how well individuals adapt to their social settings to strike a balance between themselves and their surroundings. This theory considers the unique social and cultural elements that influence how individuals adapt and find their place in society. Successful adjustment to communal life supports

the fulfillment of major human roles. When people plan their life (Savickas et al., 2009), they should become accustomed to anticipating that they get employment, socialize and form relationships. The career construction model of adaptation only gives attention to the career aspect and function since the model deals with social expectations that people prepare, enter then get involved in the occupation part, and eventually manages shifts from one occupational role to another. Seen from this angle, employment promotes social belonging and engagement, which provides an approach for sustaining oneself in society.

Career adaptability comprises four core psychological capabilities: concern, control, curiosity, and confidence (Savickas, 2005). People who possess strong career adaptability tend to reflect higher readiness for the future and focus on long-term goals (concern), is committed to developing his or her professional path (control), investigate the compatibility between personal characteristics and opportunities (curiosity), and is assured of his/her capacity to deal with obstacles and attain positive outcomes (confidence) (Savickas, 2013). These resources are utilized when a person is confronted with vocational tasks, employment transitions, and work traumas (Savickas, 2005). Adaptability resources are more variable than personality traits as they are formed by the dynamic relationship between the inner experience and environmental influence. It is related to specific responsibility and contextual incidents. This refers to the fact that culture and context set a limit around adaptability (Rudolph et al., 2017).

Career adaptation is a fundamental concept to comprehend in both practical and research applications. Adaptive skills play an important role for students experiencing dissatisfaction with their initial career journey. This includes advancing their capability to investigate other alternates, gain knowledge regarding several professional paths, and strengthen their planning skill and make thoughtful decision for their future path (Savickas, 2005). Therefore, establishing a valid, reliable and culturally responsive career adaptability scale tailored particularly for university students is critical step for fostering the growth of emerging professionals. Such an instrument provides a valuable understanding into students' psychological resources and allow universities to deliver targeted guidance and interventions, ultimately equipping them to manage the complexities of the modern work environment and build successful careers (Rossier et al., 2017).

This study intends to examine the validity of career adaptability scale for this population. The validation process will establish the scale's ability to accurately assess career adaptability, supporting improved assessment of students' need and creation of more impactful career development programs.

1.2 Statement of the Problem

The Career Adapt-Ability Scale (CAAS), originally developed and validated by Mark Savickas and Erik Porfeli, has emerged as a well-established tool for evaluating important career resources. Depending on Super's career construction theory, the CAAS offers a strong foundation for assessing individual's readiness to navigate difficulties associated with career. The instrument has proven to be highly reliable and consistently applicable across different national context (Savickas & Porfeli, 2012). CAAS has been validated and culturally adapted in several countries for diverse population including university students and both the full-length 24 item scale and a shorter version are available. Despite its widespread use, its validation among undergraduate students in Ethiopia remains unexplored.

Findings from research highlight close relationship between career development and an individual's environment, with every stage of career development influenced by interaction with their surroundings. In Ethiopia, aspects like cultural beliefs, educational structure socio economic factors and the labor market all play a significant role in shaping how students interpret and strengthen their career adaptability. If the CAAS is used in Ethiopian cultural setting without the appropriate validation process it could undermine the accuracy of result, create misinterpretations and reduce the effectiveness of career guidance interventions.

In Ethiopia, factors like cultural values, the education system, socio-economic conditions, and the job market all influence how students understand and build career adaptability. If the CAAS is used in this setting without proper validation, it could lead to inaccurate results, misunderstandings, and ineffective career guidance efforts.

Secondly, although higher education in Ethiopia has expanded rapidly and the job market has grown more competitive, there are no published studies in the country that provide valid and reliable instruments for assessing career adaptability among university students. Moreover, many

organizations report that young adults often lack the skills aligned with current job opportunities, and that educational systems do not consistently equip them with the competencies required for career success (Casner-Lotto, 2006; Jackling & De Lange, 2009; Simpson et al., 2019). Considering these challenges, individuals need to be mindful of their surrounding and capable of adapting flexibly to finding opportunities that help them prepare for and advance with the necessary skill for their career growth (Goodman, 1994). Establishing the validity of a career adaptability measure that is tailored to the social and cultural context of Ethiopia, would provide meaningful contribution to individual' career development and professional practice. This is because, since it would assist explain how career transition capacities relate with other variables of career development as well as personal, social and cultural factors. (Hou & Leung, 2011). In response to this research gap, the current study seeks to adapt the Career Adapt-Abilities Scale (CAAS) for use with Ethiopian university students, ensuring that it reflects the country's socio-cultural context, and will report its psychometric properties, including item-level statistics and internal consistency estimates. Furthermore, the study will investigate the factor structure of the CAAS, compare the results with the proposed multidimensional, hierarchical measurement model of the CAAS—International Form 2.0, and offer initial validity evidence for the scale's scores.

1.3 General Objective of the Study

The general objective of this study was to adapt and validate the Career Adapt-Abilities Scale (CAAS) for Ethiopian university students by examining its psychometric properties, including reliability, content validity, factor structure, and to investigate its applicability and effectiveness in the context of higher education in Ethiopia.

Research Questions

More specifically, the study answered the following research questions:

1. What is the nature of the original tool (including its purpose, components, the original setting and population(s) it was developed, its theoretical underpinnings, and how was it validated)?
2. What are the reliability and validity indices of the adapted version Career Adapt-Abilities Scale among Addis Ababa University undergraduate students?

3. To what extent does the adapted version demonstrate linguistic equivalence and cultural relevance to the study participant?
4. Is the underlying concept or construct being measured relevant in the new context? In other words, do the concepts or dimensions measured by the original tool hold the same meaning in the new context? Are there any missing concepts or dimensions that need to be added to the tool to be relevant to the new population?
5. Are there meaningful comparisons across different sociodemographic groups (male vs female, urban vs rural, Year Study, Cumulative GPA) with respect to the adapted version of Career Adapt-Abilities?

1.4 Significance of the study

The adaptation and validation of CAAS for university undergraduate students in Ethiopia have significance for students, Instructors, and career counselors.

For Students, the adapted tool can help to understand themselves better, see what they are already good at, and to discover what they need to improve along their career path. These insights can encourage students to take greater responsibility to their future. Students can make plans to build work-related skills and to develop connection with others in the same career journey. The adapted tool also helps students not only for getting a job, but rather to stay prepared for the new job opportunities. The adapted CAAS can reduce work-related stress when students are preparing for change, helps them to make more confident and informed decisions.

For University instructors and career counselors, the adapted tool allows them to early identify students who may face challenges in career adaptability skills, to provide targeted intervention, to follow the progress of their client's adaptability performance, and to monitor the effectiveness of programs related to career-related interventions. The tool can also be used to identify students' areas of growth and to integrate it in the curriculum, classroom learnings, and extracurricular activities.

Beyond the University Setting, the adapted CAAS will be used in a scientific community as a valid and culturally relevant instrument to study career development and vocational guidance in Ethiopian context. This study will also help the researchers to compare the findings with data from

other validation studies as therefore it enriches the global conversations. Furthermore, the adapted instrument can be used to assess the predictive role of career adaptability in students educational and career related outcomes, by contributing to the prediction of career planning behaviors, employability, and successful career transition among Ethiopian university students (McArdle et al., 2007). The adapted tool will also help government bodies, such as the Ministry of Labor and Skills, and private organizations, to investigate what skills are needed in the job market and how the individuals matches with the requirement.

1.5 Delimitation of the study

The study was limited to adaptation and validation of CAAS among Addis Ababa university final year students in Sidist killo (6 killo) campus. The target population included in this study were regular students and in their final year study in selected four colleges within Sidist Killo campus. The study didn't include students of other campus of Addis Ababa University, students enrolled in extension and evening programs. The study focused to examine career adaptabilities of final-year students. Final year students were selected because they were close to graduation.

Since students at the University come from different regions of the country and have diverse cultures and languages, the study focused on validating the tool in Amharic language. This is because Amharic is the most widely spoken language in the country.

The study workflow involved translation of the instrument, contextualization of items, and evaluation of its psychometric characteristics to ensure the adapted CAAS is valid and reliable. The study focused only to validation of CAAS. It didn't try to develop new tools or examine other areas of career adaptability.

1.6 Operational definition of terms

Career Adapt-Ability Scale (CAAS): - CAAS, in this study, refers to an International standardized assessment tool designed to measure an individual's adaptability in responding to career-related tasks, transitions, and challenges. The tool consisted of 24 items categorized into four subscales called concern, control, curiosity, and confidence.

Adaptation: - The process of translating and culturally adapting the CAAS items into Amharic language for use among undergraduate students at Addis Ababa University, while maintaining the original construct of the scale.

Validation – The process of examining the psychometric properties including of the adapted CAAS to ensure the scale is applicable to Ethiopian University Students. This involves statistical testing such as factor analysis and reliability analysis.

Career Adaptability – The psychosocial resources individuals draw on to navigate career-related changes, challenges, and decisions. In this study, it is measured using the four CAAS dimensions.

Final-Year Undergraduate Students – Regular, full-time Addis Ababa University students in their last year of study before graduation, preparing to transition into the job market or postgraduate education.

CHAPTER TWO

LITERATURE REVIEW

2.1. Conceptualizing career adaptability

The concept of career adaptability was initially introduced as ways adults manage the encounters posed by a changing work environment. Scholars have since expanded this concept to encompass the ability to navigate changes and transitions throughout life. According to Savickas (2005), career adaptability refers to readiness and resources individual's display to cope with various challenges, including vocational tasks, transitions, and personal challenges (Savickas, 2005). Similarly, Rottinghaus et al. (2005) defined it as an individual's perceived ability to manage and make the most of future changes, ease with new work responsibilities, and resilience in the face of unexpected events that affect career plans (Rottinghaus et al., 2005a). In recent years, numerous studies have emphasized the importance of understanding the components and predictors of career adaptability.

Schmitt and Chan (2014) suggest that understanding these differences and other conceptual issues can lead to better interpretations of data and advancements in research on individual adaptation. There are two main perspectives on individual adaptability: one views as a performance construct, while the other as a dispositional construct (Schmitt & Chan, 2014). The performance construct looks career adaptable behaviors in different environment and focus on how well a person adjusted when the work-related environment is changed. On the other hand, dispositional constructs, looks personal inherent trait related to work and focus on individual natural readiness to adapt for different situations (Ployhart & Bliese, 2006).

According to Savickas (2013), career adaptability comprised of individual set of skills, attitudes, and behaviors that help them to cope when they face change and challenges (Savickas, 2013). This concept primarily focuses on the personal ability to adjust and is more related to self-control. In the Career Construction Theory (CCT), adaptability individual traits that prepares them ready for change. This trait leads to the development of psychological resources that then impact behaviors. These will affect outcomes like career success, personal satisfaction, and occupational fitness. It is essential to clearly define and understand the theoretical framework when studying this concept.

Following industrialization, the number of different professions within the employment sector increased dramatically (Savickas et al., 2009). In which employees had to the opportunity to negotiate salary in this labor market, and the relationship in the job market was viewed as reasonably stable (Savickas et al., 2009). Workers displayed commitment and loyalty with the emphasis on the job occupant rather than the actual task being performed which they may aspire to a certain job for their lifetime. In exchange, devoted employees were guaranteed of the organization's allegiance. In this way, the person's career route was predetermined, and they had to choose wisely (Savickas, 2005; Savickas et al., 2009).

Nonetheless, the advertisements for digital revolution and the rapid evolution of technology have created a new social structure of employment in the twenty-first century (Savickas, 2005; Savickas et al., 2009). This climate necessitates organizations toward rearranging their staff to permit flexibility in production, and has led to a different organizational structure for work (Savickas, 2005). In the modern global economy, a drive for excellence has replaced the previously rather stable workforce, including the relationship between employers and employees (Greenhaus et al., 2003; Savickas et al., 2009). There has been a considerable change in the social structure of organizations as a result of the attention on work as a project rather than a full-time, lifetime commitment. This change is particularly relevant to the psychological contract that exists between employees and employers (Savickas, 2005).

The psychological agreement that results change the emphasis from a long-term partnership to a short-term deal as employment is substituted by employability. In this meaning, employability then refers to the acquisition of knowledge necessary to finish tasks and the capacity to immediately apply that knowledge to different tasks (Savickas, 2005). Considering this flexibility, individuals in modern organizations are required to acquire a variety of skills and competences as job changes occur more frequently. The definition of work has changed, and it is now more important than ever for people to stay current with technology, be adaptable, develop their own employment prospects, and retain their employability (Savickas et al., 2009). Therefore, it is evident that the employee's career no longer belongs to the company, and that a person is expected to assume responsibility for managing his or her own professional path (Savickas et al., 2009). The career lifecycle is viewed as a predictable development of career life phases in conventional theories of careers, such as Super's career life stages. These career life stages are distinct from one

another, and the various phases of the cycle are each characterized by psychological tasks (Duarte, 2018)

Understanding and coping with the work transitions that employees undergo is vital from a career standpoint. Emerging ideas that reflect how workers adapt to their changing environment include employability, lifelong learning, boundary-less professions, and adaptability (Savickas, 2005; Zhao et al., 2022). Career adaptability is a proposed bridging construct by Savickas (1997) that effectively unites all viewpoints of the career/life span theory and enters links the professional life stages. Regulation skills, adaptation capabilities, and consequently adaptability are seen as being crucial for people to respond to and meet the problems brought on by continuously changing work situations (Savickas & Porfeli, 2012).

2.2.Overview of Career Construction Theory

The developmental theory of vocational choice developed by Super (Super, 1953, 1980) gave rise to the career construction theory. This theoretical approach is observed as the most complete and significant framework that guides the field of vocational psychology research (Hackett et al., 1991). In terms of career development, the developmental viewpoint views it as a way to implement one's vocational self-identity, specifically the self-perceived characteristics linked to work roles, in order to attain a sense of occupational alignment and personal life fulfillment. Furthermore, they view development as ongoing journey that encompasses five professional phases characterized by growth, exploration, establishment, maintenance, and disengagement (Super, 1953).

The vocational development theory, also referred as the lifespan or life space theory, has its shortcomings, even though it has been widely popular in careers study for many years (Super, 1980). Its understanding of professions as a straight line from one stable state to the next is no longer compatible with the uncertain, dynamic, and boundaryless work patterns of today (Arthur & Rousseau, 1996). Additionally, it lacked an organizational framework that considers the continuous adjustments working adults encounter, focusing instead on career maturity, specifically early career choice preparedness (Savickas, 1997). At the core of professional maturity is the idea of a safe work environment, where a person can make their own career choice and develop

confidently. Planning a stable path on a secure professional path, however, is no longer feasible in the quickly changing workplace of today.

As a result, an initiative to combine the elements of Super's (1980) life-span and life-space theory in order to respond to the challenging dynamics of people's routine and experiences resulted in the development of the career construction theory. These components include individual differences, development, self-concept, and context. According to career construction theory, which is in line with the developmental approach, individuals' preparedness to carry out age-appropriate career duties as well as the application of the vocational self-concept throughout life stages are its main points of focus. It adopts a contextualist worldview in which career advancement is seen as mostly being driven by one's ability to adapt to their working environment as opposed to by their choice maturation (Savickas, 1997, 2002)

The concept of career adaptability was developed to address the career choices that working people face as they navigate changing work environments and to fill the gaps in the vocational development theory. It serves as a linking construct that joins different parts of Super's (1980) theory into a central idea that reacts to major innovations in developmental and occupational psychology research. Because professional development is driven by adaptation to a continually changing environment, the theory of career construction offers a dynamic view on this process. Last but not least, person-environment fit is a key component of career construction theory. In order to address the narrow emphasis of existing trait-oriented career theories, this approach utilizes the career development as a dynamic and active process of creating meaning. This perspective responds to the predominant focus on analyzing individual difference and occupation matching found in the social constructivist paradigm (Young & Collin, 2004).

The role of person-environment interaction on professional development is integrated to solve this shortcoming of conventional career theories. People are making their own decisions and shape their careers identity in order to adapt to their workplace change. (Savickas, 2013). The theory of career construction therefore emphasizes individuals need to be flexible, adaptable, self-directed career to manage changes to work environment.

2.3.The Career Construction Model of Adaptation

The career construction model of adaptation builds up on the adaptive resources required to effectively manage and adapt to changes in a career. This model also builds upon the boundaryless and protean concepts in career literature. The concept highlights individual's role in guiding their own development and career advancement. It focuses on how people adjust to the society as they plan, begin, and engage in their professional roles. In the uncertain today's work environment, the model considers how each person uses their readiness and resources to deal with transitions and unforeseen changes. The model indicated that adaptive readiness, adaptability resources, adapting responses, and adaptation results play an important role in the adaptation process (Rudolph et al., 2017; Šverko & Babarović, 2019). According to Savickas (2013), people's response and adaptive skills may differ for managing change, and their preparedness to face it (Savickas, 2013). As a result, individuals may grow differently into their professional roles over time. Individual adaptation varies depending on the possibilities and demands placed on them by their surroundings; in particular, cultural or contextual influences are seen to impose restrictions on the activation and manifestation of career adaptability. So, it is assumed that the components of adaptation will be related to the individual's changing nature and the associated environment (Rudolph et al., 2017). It is important to distinguish clearly between the key elements of adaptation posited by Savickas' (1997; 2013) theory of career construction. First, adaptivity is the aspect of individual differences related to willingness to adapt and show adapting actions. Adaptive preparedness cannot initiate the actions required for work adjustment on its own. Adaptive people combine their ability to self-regulate with their willingness to deal with change to achieve fitness. Adaptability is a sign of resources for coping and implementing change. Career adaptability is considered as the central concept in the paradigm, bridging the gap between individual intention (i.e., adaptive preparedness) and action (i.e., adapting responses). Career adaptability is anticipated to influence how responses or professional practices are modified to handle change. According to Savickas and Porfeli (Savickas & Porfeli, 2012), these factors are essential for achieving adaptation results known as goodness of fit, which are demonstrated by professional success, satisfaction, and development. In conclusion, the career construction model contends that individuals who exhibit readiness and the capacity to engage in actions that effectively handle altering work conditions are expected to adapt at higher levels.

2.4.Career Development tasks of undergraduate students

Career development theory suggests that undergraduate years are critical for completing significant tasks related to personal growth. These are tasks that must be completed during a given stage of growth, such as transitioning from adolescent to adulthood (Havighurst, 1952). These tasks are essential because they can greatly influence their future career development and job opportunities. University students prioritize self-reflection, investigating job possibilities, making professional decisions, and preparing for their future careers as soon as they enter University (Vos, 2019). Despite its significance, career development is frequently overlooked in undergraduate education, with many students only beginning exploring their careers in their final year of study (Wright et al., 2013).

Ginzberg (GINZBERG, 1988) described three stages of job development: fantasy, tentative, and realistic. University students are currently in the realistic stage, which is divided into three sub-stages: exploration (exploring careers of interest), crystallization (setting career goals and solidifying elements associated with their occupational choice), and specification (making more detailed plans and taking action to make decisions).

Super (Super, 1980) also proposed tasks for the different stages of career development that individuals go through in their lifetime. Super states that college students are in the exploration stage, where they are exploring different career options based on their abilities, interests, values, and job opportunities. During this stage, students may decide to pursue further education or start looking for a job by exploring various career paths. The exploration stage consists of three sub-stages: crystallization, specification, and implementation. In the crystallization stage, individuals start to form a preference for a particular career as they gather information about themselves and different occupations. The specification stage is when a specific career choice is made from several options. Finally, the implementation stage is when individuals start taking steps towards their chosen career path.

Lee and Choi categorized the tasks necessary for university students' career development into five stages: occupational awareness, career exploration, career design, career implementation, and career self-management. Occupational awareness involves understanding university life, choosing a major, identifying personal values, goals, and directions, and developing a positive self-concept

and attitude towards work. Career exploration includes understanding one's own characteristics, exploring career information, and considering social and environmental factors. Career design involves setting career goals that align with personal characteristics and planning for self-development. Career implementation focuses on developing vocational skills and preparing for the job market. Career self-management involves engaging in meta-cognitive activities related to career development (Lee et al., 2021).

Following a comprehensive review of previous studies on career development theories, findings revealed that the career development stage for university students includes exploring, selecting, and deciding on careers, as well as creating and implementing specific plans. However, these theories have been criticized for not considering various environmental factors, as they primarily focus on individual internal issues. This perspective on the career development of university students emphasizes the importance of identifying everyone's interests, skills, and abilities to make a suitable career choice. However, personal traits and circumstances may change due to personal situations in the fast-changing and unpredictable future job market. This validation study aims to investigate how psychological resources, and societal trends can affect the career development of university students. By examining these factors, we can develop a deeper understanding of the complexities involved through making career decisions and offer more thorough guidance to students as they plan their future professions.

2.5. Psychometric Characteristics of Career Adaptabilities Scale

2.5.1. Nature and content CAAS

The International form of CAAS were primary developed with the objective to evaluate career adaptability as the psychological resources across different countries and contexts. The instrument has a total of 24 items which is categorized into four subscales to measure psychosocial capacities of career adaptability represented by concern, control, curiosity, and confidence. Career adaptability is a multi-layered construct in which first order constructs of the scale comprised the four subscales and second order constructs measure the overall adaptability (Savickas & Porfeli, 2012). After the development of the scale numerous studies were conducted to assess measurement invariance across countries.

2.5.2. Measurement Invariance Across Countries

The CAAS was developed to respond to the lack of measurement consistency of career adaptability. Prior to the development of CAAS, studies on career adaptability used different measures tools such as career optimism (Rottinghaus et al., 2005b), commitment to career choices scale (Duffy & Blustein, 2005) to explore dimensions of adaptability as CAAS factor structures. However, the tools used in these studies provided an incomplete capture of career adaptability concept like it was proposed in career construction theory.

Generally, preceding studies broadly differ in their measurement practice coupled with limitations in their operationalization of career adaptability (Creed et al., 2009; Duffy, 2010; Hirschi, 2009). For this reason, comparing evidences that could explain Savickas' adaptation model of career construction was problematic. These measurement discrepancies and conceptualizations were key constraints to the research advancement on career adaptability.

To respond to challenges of divergence in measurement, a multinational vocational psychologist established an international scale guided by Career Construction Theory as a conceptual framework. Validity assessment has been carried out to the scales' multi-layered construct model from 23 countries that represented all continents except Antarctica. The reliability and validity results from these studies had supported the factor structure of career adaptability including its higher order overall construct. Generally, the cross-country validations deliver strong evidence for the measurement equivalence and utility of CAAS in different contexts.

2.5.3. Structural Validity of Career Adaptability Scale

Many studies have examined the structural validity of the CAAS using confirmatory factor analysis (CFA) statistical approach. CFA is applied to determine how closely were a proposed factor structure corresponds with the observed data. An International form of CAAS is used in many countries and has been validated by researchers in 13 countries. Many studies have supported the CAAS's four-factor structure while some others suggest alternative structures. Some studies have also looked into creating a shorter version of the original scale or including additional sub-domains in the original version.

To mention some, Rossier et al. (2012) had conducted a validation study among French-speaking adults that found supporting evidence for four subscales of CAAS (Rossier et al., 2012). A similar study conducted in the same year in Korea found that CAAS subscales are reliable and valid to measure career adaptability (Tak, 2012). These adapted tools are accessible to be used in their respective countries to evaluate career adaptability skills among students.

Some researchers such as Maggiori et al. (2015) further refined the scale to develop a shorter version of CAAS that were designed to assess the four subscales of CAAS like the original version. It is crucial that they have introduced a more cost-effective scale to replace the CAAS, as they found a strong correlation when comparing the CAAS-SF with the CAAS (Christian Maggiori et al., 2015).

Nota et al. designed the Career and Work Adaptability Questionnaire (CWAQ) a similar tool with CAAS that were proposed to assess adolescents' readiness for employment life and their adaptability skills in the evolving job market. The scale includes five sub-factors including the four subscales of CAAS and additional constructed labeled cooperation. The result confirmed the multi-layered structure of the scale and demonstrated its validity (Nota et al., 2012).

Rottinghaus et al. had designed the Career Futures Inventory (CFI) tool to assess career related attitude and adaptability. The first CFI was developed to measure the three specific dimensions: career adaptability, career optimism, and perceived knowledge (Rottinghaus et al., 2005a). Later in 2012, they revised and expanded the scale that consisted of five subscales named Career Agency, Occupational Awareness, Support, Work-Life balance, and Negative Career Outlook. The CFI-R measures how individuals manage their career behavior by assessing self-awareness, sense of control, and task regulation in relation to confidence in ones' abilities (Rottinghaus et al., 2012).

Pulakos et al. designed an organizational framework of adaptive work performance behavior. They also engaged in research to examine, predict, and enhance adaptive performance behavior in the workplace. They came up with the eight subscales comprises manage emergencies, copying work related stress, engage in creating problem solving, adapt to both predictable and unpredictable situations, acquiring new skills and technologies, adapting interpersonally, adapting culturally, and demonstrate physical adaptableness (Pulakos et al., 2000).

Zhang et al designed a specialized tool specifically for militaries in China. Unlike many other studies, the subscales identified five subscales which are different from the traditional 4 'C' subscales. These factors measured a psychological ability of organization and fusion, communication, learning development, emotional control, and career transformation (Zhang et al., 2020). Jang and Kim also designed a career adaptability scale for South Korean students with eight distinct but extended subscales to predict successful job transition and to be used even after securing a job (Kim, 2021).

2.5.4. Construct and Convergent Validity Evidence

Recent studies have conducted validity test to examine the construct of career adaptability, emphasizing its convergent, discriminant, and incremental aspects. Findings showed that there were a positive correlation with personality traits including conscientiousness, openness to experience, extraversion, agreeableness, core self-evaluation, and proactive personality (Johnston, Luciano, et al., 2013; Sarsikoğlu & Bacanlı, 2021). It also associated with positive dispositions like career optimism, self-esteem, self-efficacy, and orientation to happiness (Tolentino et al., 2013), as well as coping strategies such as tenacious goal pursuit and flexible goal adjustment (Tolentino et al., 2013), and motivational factors including promotion-focused self-regulation, learning goal orientation, need for achievement, future time perspective, and locus of control (Tolentino et al., 2013). Additionally, career adaptability had showed positive relationship with expected work outcomes like work competency, task engagement, reduced job-related mental exhaustion, and enhanced quality of life (Johnston, Luciano, et al., 2013; Tolentino et al., 2013; Zacher, 2015).

Additionally, career adaptability is a strong predictor of career success outcome compared to major personality dimension (Big Five) and measures of core self-evaluation, showing its unique value of added predictive validity and distinguish its associated factors (Zacher, 2015). On the other hand, researches have revealed that negative correlation of was observed between career adaptability and neuroticism (Teixeira et al., 2012), fear of failure (Pouyaud et al., 2012), protective self-control, trait anxiety, and perceived barriers (van Vianen et al., 2012a). These studies provide further evidence supporting the idea that adaptability is a key resource for career development.

Initial career adaptability studies first and foremost examined several personal and environmental forecasters during entry into professional employment after education. Studies indicated that positive association was observed between career adaptability and competitive achievement orientation (Creed et al., 2009), career goal clarity, positive affectivity, social-environment beliefs (Hirschi, 2009), spirituality, religiousness, career optimism, self-esteem, and social support among students (Duffy, 2010). The evidence obtained indicate that in a school situation confidence, orientation to goal, and constructive orientation associates with better career adaptability skills. In the workplace, career adaptability is correlated positively with occupational attitudes and values, involving in making work-related decision, independence, and support from supervisors.

On the other side, career adaptability was found to be correlated negatively with job insecurity, discontentment and job loss (Klehe et al., 2011). These job insecurity factors push individuals in work place to enhance their personal responses and examine occupational alternatives by this means increasing career adaptability. Prior to the development of CAAS, many studies employ different construct conceptualization and operationalization of career adaptability. Whereas, following the development of career adaptability scale, dispositional factors started to be recognized in the following research as predictors of adaptability career. For example, a positive correlation was observed between career adaptability skills with promotion-oriented regulatory focus, high level of extraversion, conscientiousness, and openness to experience and adaptive capacity (Rossier et al., 2012; van Vianen et al., 2012b). This initial empirical evidence validates the postulation that occupational adaptability skills intensely correlate to relatively maintain personal traits that represent adaptive preparedness to adjust in new situations.

In Comparison, other studies also discovered that career adaptability showed negative correlations with job strain (C. Maggiori et al., 2013), and perceived ability to control adversity (Tian & Fan, 2014). In addition to personal differences, recent findings have also shown that contextual factors, like social support and educational settings, have positive impact to enhancement of career adaptive skills (Tien et al., 2014). The outcomes strengthen the notion that career adaptability constitutes flexible personal resources. It also strengthens the concept that adaptivity promotes career-related resources proposed in career construction model.

In addition to highlighting these various indicators, empirical study has also looked at a variety of results linked to career adaptability particularly among students. In education setting, students showed high level of career adaptability reported lower career concern (Creed et al., 2009). Similarly, higher career adaptability among adolescents were associated with perceived control and satisfaction in life (Hirschi, 2009).

Additionally, in this study Klehe et al (2011) reported that employees with career adaptive skills but challenged with unfavorable work situation such as unemployment or being laid off were more probable to quit their job because they are less reliant on the organization and they are capable of exploring other work alternatives (Klehe et al., 2011). Besides these, persons with career adaptive skills but were jobless had higher probability to regain employment (Klehe et al., 2011) .

CHAPTER THREE

METHODS AND PROCEDURES

3.1.Study Design

The study design used in this study to answer the research objective was quantitative cross-sectional methodological study design. This design was found to be appropriate in instrument adaptation and validation studies to examine the reliability and validity of measurement tools in new language and cultural settings (Price, 2016).

The design involved sequential procedures for translating and adapting the International English version of the assessment tool into Amharic. These procedures included forward translation, backtranslation, expert review, and cognitive interviews to a pilot group of final-year students. The purpose was to check clarity, cultural relevance, and appropriateness of the items. Feedback obtained during this stage was used to revise and finalize the instrument before the large-scale survey.

The quantitative phase involved survey data collection from undergraduate students using cross-sectional approach, in which data were collected at one-point time. The design also helped to compare and answer how the adapted Amharic instrument related with the original scale.

3.2.Study Area

The study was conducted in Addis Ababa University. It was established in 1950. At that time, it was named University College of Addis Ababa (UCAA). It is the first public university in Ethiopia and is found in Addis Ababa, the capital city of the country. There are 13 campuses in the University with 10 colleges, 12 research and teaching institutes, 12 schools, and 2 teaching Hospitals. Currently, the university offers 70 undergraduate programs and 293 postgraduate programs, of which 72 are third degree (PhD) programs. It also offers different specializations in the health sciences field.

The study was conducted at Sidist Killo Campus, where 25 undergraduate programs are offered under three colleges: The College of Education and Behavioral Studies (CELS), the College of

Social Sciences, Arts, and Humanities (CSSAH), and the College of Business and Economics (CoBE) and the College of Law and Governance Studies.

The College of Education and Languages Studies (CELS) was established in 1952 and initially offered major area courses within the Arts Faculty. The college is currently made up of three schools and one department: the School of Education, the School of Psychology, the School of Language Studies, and the Department of Sport Science and Physical Education. Together, they offer a total of 12 undergraduate programs (Addis Ababa University, 2025)

The College of Social Sciences, Arts, and Humanities (CSSAH) was founded in 1978. After the university transitioned to self-governance and underwent institutional restructuring, the college expanded to include six schools and five departments. The schools within the college are the School of Development Studies, the School of Social Work, the School of Theatre Arts, the Yared School of Music, the Alle School of Fine Arts and Design, and the School of Media and Communication. The college also comprises five departments: The Department of History and Archaeology, the Department of Geography and Environmental Studies, the Department of Philosophy, the Department of Political Science and International Relations, and the Department of Sociology and Social Anthropology. In total, the college offers 10 undergraduate programs, of which only 7 are based at the Sidist Killo campus (Addis Ababa University, 2025).

The College of Business and Economics (CoBE) at Addis Ababa University has a long history in business and economics education in Ethiopia. Its background goes back to the establishment of the School of Commerce in 1943 and the Department of Economics in 1959. The college currently consists of one school and seven departments. These include the School of Commerce and the departments of Accounting and Finance, Economics, Management, Marketing Management, Logistics and Supply Chain Management, Business Administration and Information Systems, and Public Administration and Development Management. Among these, the Department of Management and the Department of Public Administration and Development Management are located at the Sidist Killo Campus (Addis Ababa University, 2025).

At the College of Law and Governance Studies, the university offers only one undergraduate program.

3.3.Study Population

The study population included regular final-year undergraduate students from three colleges and one school at the Sidist Killo campus during the 2025/26 academic year. Final-year students were selected because they were close to graduation. They were also preparing to join the workforce. At this stage, career planning and adaptability are important (Khampirat, 2024).

Students at the campus come from different linguistic, cultural, and socioeconomic backgrounds. Although Amharic is widely used, many students speak other local languages such as Afan Oromo, Tigrigna, and Af Somali. For this reason, tool adaptation that involved participants from different socio-cultural and language background, attention should be given to language and cultural suitability. In this study, the adaptation focused on validating the tool in Amharic, the widely spoken language, while also considering variations in how the language is used and understood across students from different parts of the country.

3.4. Sample Size

According to information obtained from the AAU registrar's office, the total number of regular final-year undergraduate students at the Sidist Killo campus was 671 during the study period (AAU registrar's office, 2025). Sample size determination was guided by recommendations for factor analysis. Previous literature suggests that factor analysis requires an adequate participant-to-item ratio (Comrey & Lee, 1992; Costello & Osborne, 2005a; Schumaker et al., 2022). Recommendations commonly range from 5 to 20 participants per item (Costello & Osborne, 2005b).

The CAAS contains 24 items. In this study, 20 participants per item were considered. Based on this calculation, the required sample size was 480 participants. Considering a probable non-response rate, 10% was added to the sample size, resulting in a final sample size of 528.

3.5.Sampling Procedure

To assign proportionate number of participants from each of the four colleges the study used multistage stratified sampling method. First, students were grouped according to college. Then, within each college students were further categorized by department.

After stratification, the required sample size was proportionally allocated to each department based on the total number of students enrolled in each department. Lists of students collected from the departments were used as the sampling frame as indicated in Table 1.

Following proportional allocation, systematic random sampling method was used to select study participants from each department. The total number of students was used as a denominator to determine the sampling interval (K). Lottery method was applied to select the first participant in each department. After that, participants were selected from the student list at every kth interval until the required number of participants from each department was obtained.

Table 1

Distribution of the study population, Allocated Sample, and actual participants by their college and Department

College	Department	Total Students in Stratum (N)	Allocated Sample (n)	Actual Participants (n)
College of Education and Behavioral Studies	Psychology	78	61	59
	School of Language Studies	14	11	11
College of Law and Governance Studies	School of Law	96	76	72
College of Social Sciences	Political Science & International Relations	110	87	76
	Sociology	63	50	47
	Social Work	68	54	54
	Public Relations & Strategic Communication	27	21	20
College of Business and Economics	Management (CoBE)	215	168	148
Total		671	528	487

3.6.Data Collection Instruments

A self-administered online survey was administered to collect the data. The questionnaire consisted of two parts. The first part included socio-demographic information of participants including gender, age in years, department, cumulative grade point average (CGPA), place of residence, and socio-economic status.

The second part included the International Form of CAAS. The Scale was developed by Savickas and Porfeli. It contains 24 items grouped into four dimensions: concern, control, curiosity, and confidence. Each dimension contains six items (Savickas & Porfeli, 2012).

Forward translation of CAAS- English version into Amharic was carried out following standard adaptation procedures described in Section 3.7. The scale used a five-point Likert-type scale that ranged from 1 to 5, where 1 indicated “not strong” and 5 indicated “very strong”.

Experts scale item evaluation report was used to assess the content validity. A panel of experts including psychology and linguistic background evaluated item appropriateness, clarity, and cultural suitability. A 4-point Likert type ranging from 1 (not relevant) to 4 (highly relevant) was used to rate the items. The semi structured questionnaire was followed to obtain experts’ opinions regarding each item relevance and items that needed modification. It was assessed by calculating the Content Validity Index (CVI) for each item and the total score. Item level Content validity index (I-CVI) were calculated by dividing the number of experts who rated the item as relevant (rating 3 or 4) by the total number of experts. The Scale Level Content Validity Index (S-CVI) was calculated by dividing the sum total of each item content validity index by the total number of items in the scale (24).

Previous studies reported strong reliability for the CAAS, with an overall reliability coefficient of .92. The four subscales reliability coefficient were reported lower than the total reliability coefficient, ranging from .74 for control, .79 for curiosity, .83 for concern, and .85 for confidence (Savickas & Porfeli, 2012).

3.7. Adaptation of the CAAS

Beaton et al (2000) developed adaptation procedure guideline that involved five stages. The stages are forward translation, synthesis, back-translation, expert review, and pretesting (Beaton et al., 2000).

First, the English version of the CAAS was translated into Amharic by two bilingual translators. One translator was familiar with the study area, while the other did not know the objectives of the research. Differences between the translations were discussed and resolved with the support of a third expert.

Second, back translation was carried out by another two translators who had not seen the original version. The backward translated version was reviewed to check whether the meaning of the items was maintained.

After this, translators reviewed the back-translated version to assess its conceptual equivalence with the original English version. It was found that most items showed conceptual equivalence with the original English version. But, some back-translated items needed discussions with translators because they had slight shift from the original items conceptual meaning. For example, item 6 “Concerned about my career” was back translated as “Think about my career” which diminished the emotional and motivational aspects of concern. While reviewing the Amharic translation, it was initially translated as “ፈፈ ፈፈፈ ፈፈፈ”. The experts found that this wording had reflected simply thinking about one’s career but it lacked the psychological concern and involvement meant to measure in the original scale. Therefore, to improve the conceptual equivalence of the item, experts agreed to revise the Amharic translation to “ፈፈ ፈፈፈፈ ፈፈፈ ፈፈፈፈፈ” which was then back translated as “I am concerned about my future career”. This revision was found to better match the original version.

Likewise, Item 11 “Counting on myself” was back translated as “Have confidence in myself”. Although those two expressions had similar meanings, the experts agreed that the original item intended to reflect self-reliance and being self-dependent rather than self-confidence that reflected believing in one’s skill or abilities. The initial Amharic translation “ፈፈፈ ፈፈፈፈፈፈ” was found to reflect confidence in one’s abilities, which had slightly changed what was intended to be measured. Therefore, the wording was revised to “ፈፈፈ ፈፈ ፈፈፈፈፈፈፈፈ” to more accurately reflect the item concept of relying on oneself. The revised item was then backtranslation as “I rely on myself” which was found to be a better match to the original version.

In item 13, “Exploring my surroundings” was initially back translated as “Observe things around me.” The experts discussed that the word ‘Observe’ in the back-translated version reflected passive observation rather than active exploration. This weakened the curiosity dimension intended in the original scale. While checking the Amharic translation “ፈፈፈፈፈ ፈፈ ፈፈፈፈፈ ፈፈፈፈፈ” the experts agreed that the Amharic wording had clearly reflected the conceptual meaning of

‘exploration’ intended in the original version. Therefore, the backtranslation word ‘Observe’ was revised to ‘explore’ while the Amharic version remained unchanged.

In item 16, “Observing different ways of doing things,” was back translated as “Consider various performance options.”. The experts found that this wording had brought meaning change from observing and learning different methods to evaluating alternative performance options. Upon reviewing the Amharic translation, “ፈጣጣሪ ስራዎችን ለማወቅ,” it was found that the conceptual inequivalence was in Amharic translation. Therefore, the Amharic translation was revised to “ፈጣጣሪ ስራዎችን ለማወቅ ለማወቅ ለማወቅ ለማወቅ” to better reflect the conceptual meaning of the item. The revised Amharic item was then back translated as “Observing how things are done in different ways” which was considered closer to the original version.

Finally, item 4, “Becoming aware of educational and vocational choices,” was back translated as “Know which educational and career choices I have to make.” The experts observed that this version focused more on making decisions rather than awareness of available educational and vocational options. Therefore, the initial Amharic translation, “የትምህርትና የሥራ ምረቃ ምረቃ ምረቃ ምረቃ,” was revised to “የትምህርትና የሥራ ምረቃ ምረቃ ምረቃ ምረቃ” in order to keep the original item meaning related to awareness and exploration of educational and vocational opportunities.

Third, six experts reviewed the translated scale to assess the wording, understandability, and cultural relevance of the items. The review involved rating each item relevance using 4-point Likert-type scale and provide suggestion about item clarity, wording modification, item replacement and or omission. Fourth, the translated scale was pretested on 30 undergraduate students from Addis Ababa University’s 5 Killo campus. Students were also asked to provide feedback about item clarity. Suggestions were carefully reviewed and necessary revision were taken before the final data collection.

3.8.Data Collection Procedure

Ethical Clearance and permission from the four colleges were obtained before proceeding to data collection. Kobo Toolbox platform was used to collect data online. The questionnaire was initially designed in spreadsheet and deployed to the server. The questionnaire included information sheet, consent form, socio-demographic questions, and the adapted CAAS scale. The form is designed

with mandatory required field for each item to avoid missing responses. The survey link was shared to the students through their classroom Telegram group account. In addition to the information sheet, the researcher provided verbal explanation about the purpose of the study to the students after their class sessions. Students first read the informed consent form before proceeding to the questionnaire. Only volunteers willing to participate were able to access the survey with the pre-designed skip logic.

3.9.Data Quality Assurance

Data quality was assured in each step of the research phases. The webform questionnaire was designed on Excel and deployed to the Kobo toolbox server. Each item has a required mandatory response option and skip logic where necessary. As a result, students were able to submit complete responses without missing data. Amharic language was set as a default language to appear for the respondents, while the researcher had access to both languages. This helped the researcher to export submitted data into excel and finally to SPSS for data cleaning and analysis in English version with its variable name and item labeling. The form was also designed to accept submission from each participant only once submitted. Collected data were only accessible for the researcher. It was secured with double log in authentication. After the analysis, the data were archived in the server.

3.10. Scoring

The Amharic CAAS scale has a total of 24 items which are grouped into four subscales. In each subscale there are six items. Participants responded using a Five-point Likert scale type response ranging from 1 for “Not strong” to 5 for “Very strong”.

Six items in each subscale were summed up to provide subscale total. Each subscale would have a possible range from 6 to 30 points. All 24 items were computed to get CAAS total score. Higher total values represent higher levels of career adaptability.

No items were reverse scored. Missing responses were not expected because all questions in the online form required responses before submission. The subscale and total scores were computed to determine descriptive statistics and conduct psychometric analyses.

3.11. Data Processing and Analysis

Data analyses were done using SPSS version 27 and AMOS version 23. SPSS was primarily used to run descriptive statistics, reliability analysis, Exploratory Factor Analysis and to compare means between socio-demographic variable including independent t-test, and One-way Anova. AMOS was used to perform Confirmatory Factor Analysis (CFA), model fit testing, convergent validity, and discriminant validity test.

The reliability of the scale was determined by internal consistency reliability test. Cronbach's alpha coefficient was used to assess the internal consistency of the scale. Alpha value $\geq .8$ indicated good internal consistency. Correlations between item and the total score, as well as correlations between the items were also examined.

The factor structures of the adapted scale were examined using both Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). Sample adequacy and suitability were assessed using the Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of Sphericity. An eigenvalue >1 , scree plot, and factor loading ≥ 0.4 were used as a criterion to retain a factor.

AMOS version 23 was used to conduct CFA. Several fit indices were used to determine the model fit of observed data. It included the chi-square to degrees of freedom ratio (χ^2/df), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Tucker–Lewis Index (TLI). A χ^2/df value below 2 and an RMSEA value below .08 were considered acceptable. CFI and TLI values of .95 or higher were taken as indicators of good model fit.

CFA was also applied to assess convergent validity between subscales. The relationship between each item and its related construct was checked. Standardized factor loadings of .50 or above were considered acceptable. Average Variance Extracted (AVE) was also calculated for each subscale. AVE values of .50 or higher indicated acceptable convergent validity.

Discriminant validity was assessed using the Fornell–Larcker criterion. The square root of the AVE for each construct was compared with its correlations with other constructs. Cross-loadings were also examined to check whether items loaded more strongly on their corresponding subscale than on other.

Independent samples t-tests and one-way ANOVA were also used to examine group differences in total CAAS mean scores across demographic groups.

3.12. Ethical Considerations

The study was conducted after the School Ethical Committee, School of Psychology; Addis Ababa University provides ethical clearance for the study. The study purpose was explained verbally to participant students in their classroom prior to they began answering the survey questionnaire. Written information sheet and informed consent were also attached in the webform survey. Students were required to read the information sheet and to give their consent to proceed to the next survey questionnaire. Questionnaire that revealed participants personal identity was not included. Collected data were only accessible for the researcher. It was secured with double log in authentication. After the analysis, the data were archived in the server.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1.RESULTS

4.1.1 Socio-Demographic Characteristics of the Respondents

The present study included 487 respondents giving a response rate 92.2%. Table 1 indicated the socio-demographic characteristics of study participants. Almost equal participation was observed in gender with 50.1% (n=244) were male students and 49.9% (n=243) were female students. The mean participant age was 22.14 years (SD = 1.20). Majority of the respondents were fourth-year students (85.22%), while 14.78% were fifth-year students.

Regarding place of origin of students, 61.19% participants were from urban areas, whereas the remaining 38.81% enrolled to university from rural areas. Students are represented from different regions of the country with highest proportion students came from Oromia Region (24.23%), followed by Amhara Region (22.18%) and Addis Ababa (20.12%). The remaining proportions were from different regions of the country.

Concerning language, Amharic was the most commonly mother tongue language of students (50.31%), followed by Afan Oromo 21.97%. Other languages made up only a small proportion of the sample.

Regarding father's educational status, 21.97% of fathers had primary educations and 21.77% had secondary education. Among mothers, majority (30.18%) had no formal education, whereas 25.26 had either primary or secondary education.

In relation to family income source, farming reported the most source of income (36.21%), followed by other occupations (16.67%), business activities (16.05%), private sector employment (15.64%), government employment (15.43%), and other sources account to 16.67%.

Table 2*Socio-Demographic Characteristics of the Respondents (N = 487)*

Variable	Category	Frequency (N)	Percentage (%)
Region	Oromia	118	24.23
	Amhara	108	22.18
	Addis Ababa	98	20.12
	Tigray	30	6.16
	South West Ethiopia	27	5.54
	Sidama	26	5.34
	South Ethiopia	24	4.93
	Central Ethiopia	22	4.52
	Somali	15	3.08
	Afar	8	1.64
	Benishangul Gumuz	4	0.82
	Harari	2	0.41
	Other	5	1.03
Language	Amharic	245	50.31
	Afan Oromo	107	21.97
	Tigrigna	43	8.83
	Sidamigna	23	4.72
	Af-Somali	14	2.87
	Afarigna	8	1.64
	Hadiyissa	3	0.62
	Other	44	9.03
Father's Education	Primary School	107	21.97
	Secondary School	106	21.77
	No Formal Education	87	17.86
	Diploma	82	16.84
	Bachelor's Degree	74	15.20
	Master's Degree or Higher	31	6.37
Mother's Education	No Formal Education	147	30.18
	Primary School	123	25.26
	Secondary School	123	25.26
	Diploma	43	8.83
	Bachelor's Degree	36	7.39
	Master's Degree or Higher	15	3.08
Family Income Source	Farming	176	36.21
	Business	78	16.05
	Private Sector	76	15.64
	Government Employee	75	15.43
	Other	81	16.67

4.1.2. Descriptive Statistics of Career Adapt-Abilities

Descriptive analysis was applied to examine the levels of career adaptability of study participants at Addis Ababa University.

The findings are indicated in Table 2. The finding showed that total score of career adaptability was moderate with mean value of 73.85 (SD = 15.27). Nearly comparable average mean value was observed between the four dimensions of CAAS. Control subscale had shown the highest mean score (M = 18.65, SD = 6.16) followed by concern (M = 18.56, SD = 5.93), and confidence (M = 18.35, SD = 5.96). Curiosity subscale (M = 18.29, SD = 6.18) had shown a relatively lower average mean value.

The result also showed moderate differences of standard deviations across the subscales of career adaptability.

4.1.3. Reliability Analysis

4.1.3.1 Internal Consistency Reliability

The internal consistency reliability of adapted CAAS scale were assessed using Cronbach's alpha value. The finding showed that the scale demonstrated a good internal consistency with Cronbach's alpha coefficient of .849. The result obtained in the study exceeded the minimum acceptable value of .70, suggesting that the scale items are sufficiently associated and measure the underlying construct with consistency. The result also confirming that the adapted CAAS is reliable for use in the current study.

4.1.3.2 Item–Total Correlations

Each item's contribution to the total CAAS scale was assessed using Corrected Item-Total Correlation (CITC) analysis. Higher CITC values indicate strong correlations of the item with the overall scale, and item value should exceed the minimum threshold of .30 to be considered the item has acceptable correlation.

The findings showed that the CITC value of the items were ranged from .319 to .491, indicating that all items were above the minimum 0.3. This showed that all items had acceptable correlations

to the total scale. Moderately low CITC values were observed in Q2, Q7, Q12, and Q21 compared to other items, but, their values are within the acceptable range. As a result, every item was included for the final analysis.

Table 3

Item–Total Statistics

Item	CITC	Alpha if Item Deleted
Q1 Thinking about what my future will be like	.401	.844
Q2 Realizing that today’s choices shape my future	.319	.847
Q3 Preparing for the future	.403	.844
Q4 Becoming aware of career choices I must make	.371	.845
Q5 Planning how to achieve career goals	.394	.844
Q6 Concerned about my future career	.353	.846
Q7 Taking responsibility for my actions	.339	.846
Q8 Making decisions by myself	.398	.844
Q9 Confidence in making decisions	.405	.844
Q10 Sticking to my decisions	.417	.843
Q11 Taking control of my career planning	.372	.845
Q12 Doing what is right for me	.347	.846
Q13 Exploring different career options	.394	.844
Q14 Looking for opportunities to grow	.477	.841
Q15 Investigating options before choosing	.367	.845
Q16 Observing different ways of doing things	.473	.841
Q17 Trying new experiences	.448	.842
Q18 Curiosity about new opportunities	.440	.843
Q19 Performing tasks efficiently	.405	.844
Q20 Overcoming career obstacles	.491	.841
Q21 Solving problems effectively	.355	.846
Q22 Achieving career goals	.458	.842
Q23 Learning new skills when needed	.379	.845
Q24 Working up to my ability	.420	.843

4.1.3.3 Alpha if Item Deleted

The “alpha if item deleted” statistics were computed to observe whether the total reliability of the scale become better if items with low item-total correlations was removed. The result showed the total Cronbach’s alpha values were not improved substantially by deleting low scored items in the scale. The overall reliability obtained after deletion of items were ranged from .841 to .847. None of the items had scored above the overall Cronbach’s alpha value of .849. This showed that all the 24 items demonstrated acceptable fit to be included for the final analysis.

4.1.3.4 Item–Item Correlations

The relationship among items in CAAS scale were assessed by item-item correlation analysis. Correlation value between .2 to .50 indicated desirable relationship between the items. This means that items measure the same construct but they are distinct. The result showed that most of the items correlations are positive and moderate with correlation coefficient ranged from -.039 to .582. Higher inter-item correlations were mainly found between items belonging to the same sub-scales. For example, Q14 and Q17 in Curiosity subscale ($r = .582$), Q8 and Q10 in Control subscale ($r = .573$), Q14 and Q16 in Curiosity subscale ($r = .566$), Q8 and Q11 in Control subscale ($r = .559$) had demonstrated strong positive correlations. Whereas, some items from different subscales had demonstrated very low inter-item correlation, further supporting that items measured different dimensions of career adaptability. For example, Q11 and Q21 ($r = .008$), Q9 and Q23 ($r = .004$) had demonstrated weak correlations. Only one negative but very small correlation was seen between Q2 and Q15 ($r = -.039$). Overall, the findings indicate that items are related to measure the same construct, but there were no redundant items that measure similar concept in the construct. This also indicated that the adapted CAAS internal consistency reliability were adequate.

4.1.3.5 Reliability of CAAS Subscales

The adapted CAAS subscales internal consistency reliability was also computed. The result showed that the four CAAS subscales demonstrated satisfactory internal consistency with Cronbach’s alpha value ranged from .835 to .858. Highest alpha value was observed in Control subscale ($\alpha = .858$) followed by Curiosity ($\alpha = .853$), Concern ($\alpha = .837$), and Confidence ($\alpha =$

.835). Although there were slight differences among the subscales, all dimensions demonstrated acceptable reliability coefficient. Item total correlations were also assessed for each subscale. The result showed that all items had positive and strong correlations with their designated subscales with values ranged from .541 to .704. These findings indicated that items were related to their respective subscale. It also supported the retention of six items in each subscale for the final analysis.

4.1.4. Content Validity Results

Six counselling psychology experts had evaluated the content validity of Amharic CAAS. Semi-structured questionnaire that consisted 4-point Likert type followed by feedback question were used to assess appropriateness, clarity, and cultural suitability of each item in the scale. Both item and scale level content validity index were computed to determine the level of agreements of experts rating on respectively for each item, and the total scale. Items rated 3 or 4 by experts were considered acceptable.

The result showed that I-CVI values were between from .83 to 1.00. Of the total 24 items, 7 items had an I-CVI score of .83, indicating five experts out of six rated the items as relevant. While the remaining 17 items had an I-CVI score of 1.00, indicating consensus was achieved among all experts. The average scale level Validity index result showed highest value with S-CVI/Ave index of .95. This implies that both the items and the adapted scale contents were understandable and suitable for Ethiopian undergraduate students. Only Minor feedbacks were given on wording changes to the Amharic version to improve items clarity. For example, Item 20 “Taking care to do things well” was translated into Amharic as “በጥሩ ሁኔታ ላይ ማሳተፍ”. Experts found the phrase had reflected the idea of “doing things well” but did not adequately capture the meaning of caution or carefulness that were given emphasis in the original item. Experts suggested to revise the Amharic phrase to “በጥሩ ሁኔታ ላይ ማሳተፍ በጥንቃቄ ማድረግ”. The revision was found closer to accurately reflect the meaning of carrying out one’s duties proficiently.

Similarly, item 7 was initially translated as “በጥሩ ሁኔታ ላይ ማሳተፍ በጥንቃቄ ማድረግ”. Experts suggested that the translation mainly emphasized the concept of remaining hopeful during difficult situations that narrowed the broader meaning of original item. The original construct intends to reflect the idea of maintaining positive and optimistic attitude. Therefore, experts suggested to

revise the Amharic version to “ፍጥነት ማሳደግ ማስቀመጥ” to ensure better conceptual equivalence and ease of understanding. These wording revisions were made before the final data collection.

4.1.5. Exploratory Factor Analysis

4.1.5.1. Preliminary Analysis

Exploratory Factor Analysis (EFA) were performed to examine whether the adapted CAAS reproduced the structural dimensions of the original scale. Before performing EFA, assumptions were checked whether the data was suitable for factor analysis. The data with a total of 487 completed responses were adequate to conduct factor analysis.

The suitability of data for factor analysis were checked by Kaiser–Meyer–Olkin (KMO) Measure of Sampling Adequacy and Bartlett’s Test of Sphericity. The result showed that KMO value was found to be .887, exceeded the minimum required value of .60. This indicated that correlations among items of CAAS were sufficient to conduct factor analysis. The Bartlett’s test of Sphericity was also found statistically significant with a Chi-square value 4328.18 at 276 degree of freedom and $p < .001$. This indicated that CAAS items are adequately correlated to form a factor. Overall, the result confirmed that the data adequately met the required assumptions and suitable to conduct EFA.

4.1.5.2. Factor Extraction

Factor for EFA was determined using Principal Axis Factoring (PFA) extraction method. This extraction method was selected because the study aimed to identify latent constructs of the adapted CAAS scale. With theoretical understanding that career adaptability dimensions were correlated, the study used Promax rotation method with Kaiser Normalization for a better clarity of factor structure. Number of CAAS factors to be retained were determined based on three main criteria: an eigenvalue >1 , elbow of the scree plot graph, and the conceptual relevance of the factor. The result showed that four factors were extracted from EFA.

4.1.5.3. Total Variance Explained

The result indicated that the four factors contribute to explain 56.96% of total variance, where the highest proportion of the variance (22.66%) were explained by the first factor. The remaining three

factors were also explained substantial proportion of total variance of the factor structure. This implies that the total variance explained in the result is regarded as acceptable.

Table 4

Total Variance Explained

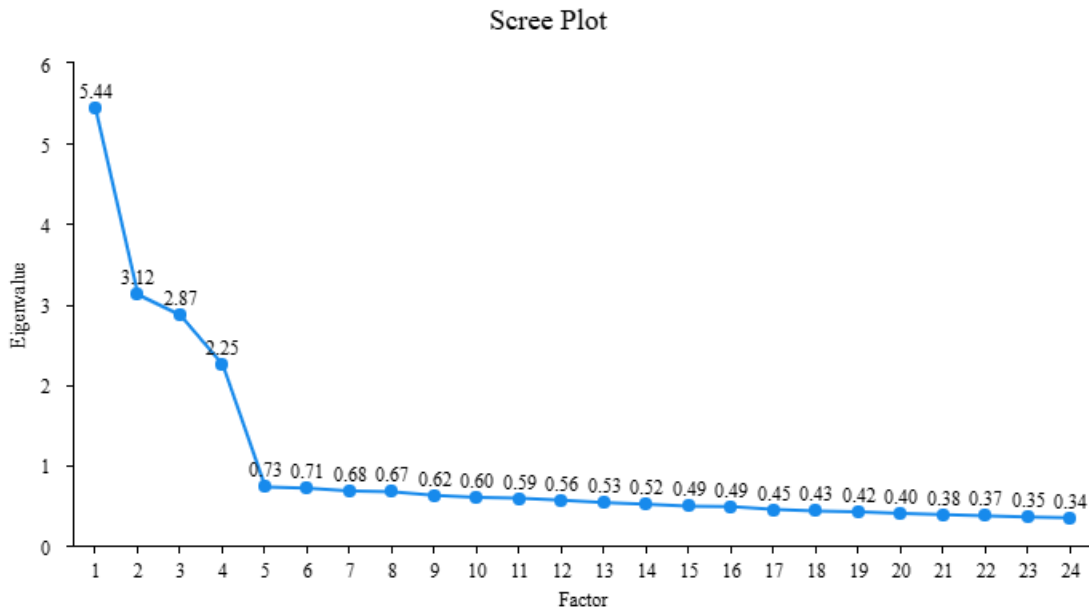
Factor	Eigenvalue	Variance Explained (%)	Cumulative (%)
1	5.437	22.66	22.66
2	3.120	13.00	35.65
3	2.866	11.94	47.59
4	2.248	9.37	56.96

4.1.1 The Scree Plot

The scree plot graph was observed to examine how many factors should be retained. As indicated in figure 1, the plot clearly showed that the curve sharply declines until the fourth factor, then it became flattened. This pattern suggested that additional factors contributed relatively little to explain the variance in the data. Thus, the scree plot confirming the retention of four-factor structure of the adapted CAAS.

Figure 1

Scree plot of eigenvalues



4.1.5.4. Communalities

Communality values were assessed to know the extent of the variance each item was represented in the extracted factors. The extraction values ranged from .356 to .609. Most items communalities exceeded the threshold value of .40, suggesting that they were reasonably explained by the factor solution. Communalities of items in each of four subscales were also analyzed. The result indicated that items under Concern subscale had showed communalities ranged from .422 to .529, Control subscale ranged from .410 to .581, Curiosity ranged from .356 to .609, and Confidence subscale ranged from .398 to .553. The result indicated that items across the four subscales were sufficiently explained by the retained factor structure.

Even though three items (Q15, 21 & 23) showed relatively lower communalities, they were retained because of their conceptual relevance and satisfactory factor loadings.

Table 5*Communalities of CAAS Items*

Item No.	Item Label	Extraction
1.	Thinking about what my future will be like	.422
2.	Realizing that today's choices shape my future	.432
3.	Preparing for the future	.477
4.	Becoming aware of career choices I must make	.481
5.	Planning how to achieve career goals	.529
6.	Concerned about my future career	.453
7.	Taking responsibility for my actions	.416
8.	Making decisions by myself	.581
9.	Confidence in making decisions	.564
10.	Sticking to my decisions	.536
11.	Taking control of my career planning	.539
12.	Doing what is right for me	.410
13.	Exploring different career options	.432
14.	Looking for opportunities to grow	.570
15.	Investigating options before choosing	.356
16.	Observing different ways of doing things	.540
17.	Trying new experiences	.609
18.	Curiosity about new opportunities	.505
19.	Performing tasks efficiently	.497
20.	Overcoming career obstacles	.553
21.	Solving problems effectively	.398
22.	Achieving career goals	.528
23.	Learning new skills when needed	.379
24.	Working up to my ability	.432

4.1.5.5. Pattern Matrix

The rotated pattern matrix was examined to evaluate the relationship between items and factors. A factor loading coefficient of .40 or above was used to determine for significant factor loading.

The findings showed that all items demonstrated factor loading clearly only to their corresponding factors. There were no cross-loadings were observed. This indicates that the factor structure was stable and interpretable.

Table 6

Pattern Matrix

Item No	Item Labels	Factor 1	Factor 2	Factor 3	Factor 4
Q8	Making decisions by myself	.766			
Q9	Confidence in making decisions	.740			
Q11	Taking control of my career planning	.739			
Q10	Sticking to my decisions	.718			
Q07	Taking responsibility for my actions	.648			
Q12	Doing what is right for me	.636			
Q17	Trying new experiences		.796		
Q14	Looking for opportunities to grow		.737		
Q16	Observing different ways of doing things		.719		
Q18	Curiosity about new opportunities		.708		
Q13	Exploring different career options		.669		
Q15	Investigating options before choosing		.584		
Q05	Planning how to achieve career goals			.727	
Q04	Becoming aware of career choices I must make			.696	
Q03	Preparing for the future			.682	
Q06	Concerned about my future career			.678	
Q02	Realizing that today's choices shape my future			.664	
Q01	Thinking about what my future will be like			.625	
Q19	Performing tasks efficiently				.726
Q20	Overcoming career obstacles				.725
Q22	Achieving career goals				.710
Q24	Working up to my ability				.654
Q21	Solving problems effectively				.638
Q23	Learning new skills when needed				.605

4.1.5.6. Factor Correlation Matrix

The result showed that the inter-factor correlation matrix among the four extracted factors were positive. The correlations ranged from .155 to .347, reflecting low to moderate associations between the dimensions. This implies that factors were correlated to each other while representing different constructs of the scale. This also supports the use of Promax rotation in the analysis.

Table 7

Inter-Factor Correlation Matrix

Factor	1	2	3	4
1	1.000	.235	.155	.161
2	.235	1.000	.172	.347
3	.155	.172	1.000	.293
4	.161	.347	.293	1.000

4.1.5.7. Interpretation and Naming of Factors

Interpretation and labeling to the four extracted factors were given considering the factor loading pattern and conceptual interpretation of items assigned to each factor.

Factor 1 was labeled as **Control** because it contained items associated with independent judgment, personal responsibility, and career management skills. The factor represents personal capacity to self-manage and plan career development.

Factor 2 was labeled as **Curiosity** because the items in the factor were associated with psychological concepts like discovering potential career opportunities, being open to new experiences, and seeking personal development. This factor represents openness toward learning and career exploration.

Factor 3 was labeled **Concern** because it included items related to future planning, career awareness, and preparation for upcoming career tasks. The factor reflects personal readiness for future career development.

Factor 4 was interpreted as **Confidence** as it contained items associated with problem-solving, overcoming obstacles, and achieving goals. This factor represents confidence in managing career-related challenges effectively.

4.1.6. Confirmatory Factor Analysis (CFA)

CFA was performed to examine the proposed four-factor career adaptability measurement model was supported by observed data. The four dimensions included in the model were concern, control, curiosity, and confidence. All four latent constructs were assessed using six observed items for each. The analysis used data from 487 participants, which was considered adequate for CFA and provided sufficient statistical power.

All responses were complete, and no missing data were found. As a result, all cases were included in the analysis.

4.1.6.1 Assessment of Normality and Estimation Method

Maximum likelihood (ML) estimation method was applied to determine the model fit indices of CAAS factor structure. Although ML estimation requires multivariate normality, it is suggested that it remains robust when the data size is adequate and there is minor deviation from normality. Since this study included 487 participants, the use of ML estimation was considered appropriate.

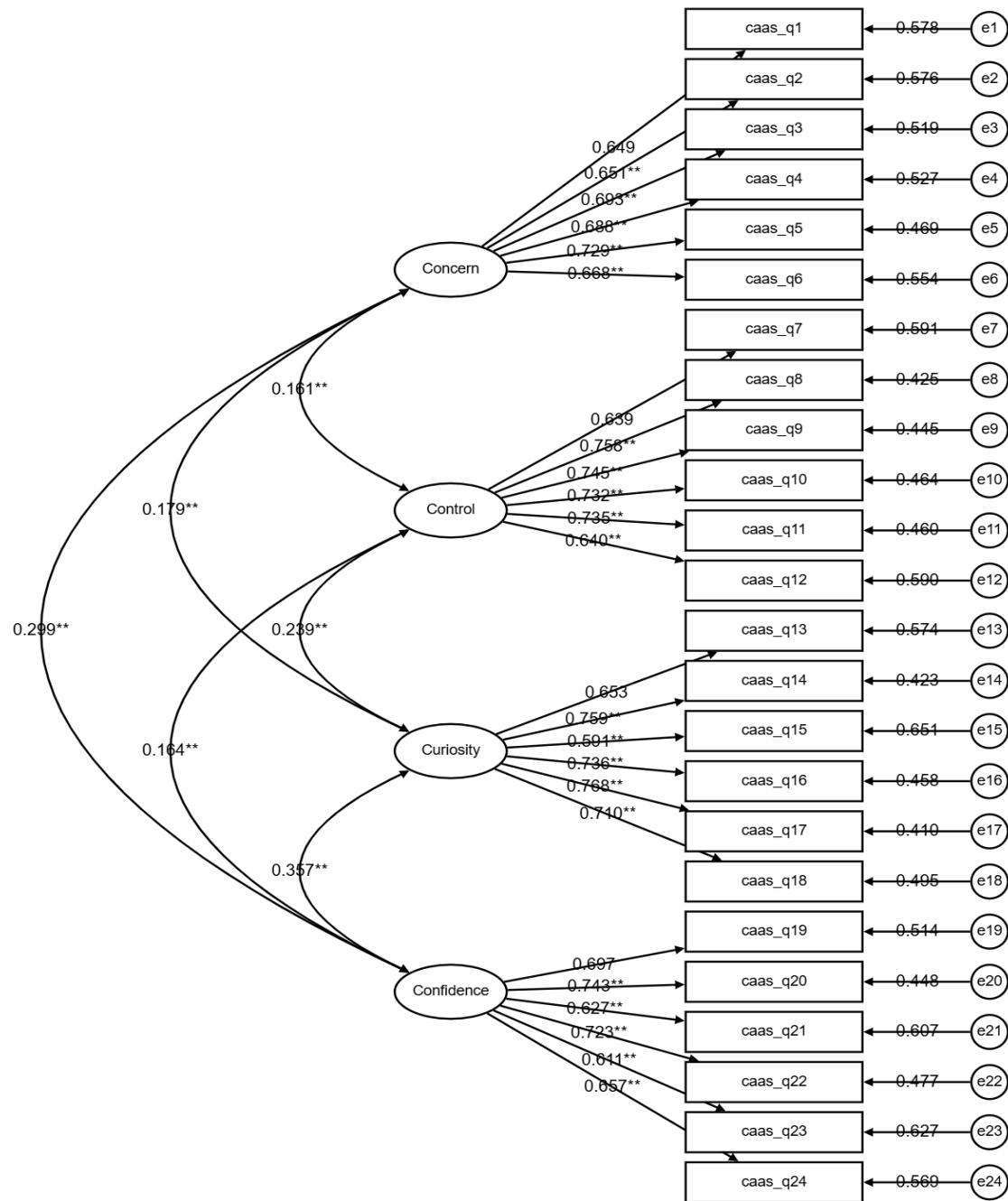
4.1.6.2 Measurement Model Specification

The measurement model consisted of four underlying first-order factors named concern, control, curiosity, and confidence. Each construct was represented by six reflective indicators. One item loading for each construct was fixed to 1.0 to establish the measurement scale.

No cross-loadings or correlated error terms were added because the model was developed based on theoretical assumptions. As shown below in Figure 2, the standardized CFA path diagram showed the item loadings, measurement errors, and inter-factor correlations among the underlying constructs.

Figure 2

Confirmatory Factor Analysis Model of the Career Adapt-Abilities Scale (CAAS) for Ethiopian University Students



4.1.6.3. Model Fit Evaluation

Several fit indices were examined to determine the model adequacy. The results showed that the four-factor model fit the data very well (Table 11).

Table 8

Model Fit Indices for the Four-Factor CFA Model

Fit Index	Value	Recommended Threshold
χ^2 (df)	252.98 (246)	—
p-value	.358	> .05
χ^2/df	1.028	< 3
GFI	.960	> .90
CFI	.998	> .90
NFI	.943	> .90
TLI	.998	> .90
RMSEA	.008	< .08
SRMR	.032	< .08

The chi-square result was not statistically significant, χ^2 (246) = 252.98, $p = .358$, indicating that the proposed model fit the observed data well. The result also indicated that Chi-square to degree of freedom ratio ($\chi^2/\text{df} = 1.028$), which were below the acceptable threshold of <3. This implies that the discrepancy between the model and observed data were small.

The incremental fit indices including comparative fit index (CFI), Tucker-lewis index (TLI), and the normed fit index (NFI) were examined to see how well the proposed model represent the observed data. Higher values indicated better fit of a model. The result showed that CFI (.998), TLI (.998), and NFI (.943) were all higher than the acceptable threshold of .90. Likewise, degree of agreement of proposed model with the observed data was measured by goodness of fit index (GFI) measure. The finding showed GFI value of .960 indicating a strong model fit. Model fit indices were also provided good model fit with RMSEA value of .008 and SRMR value of .032. This indicated that there is minimal discrepancy between the model and observed data.

4.1.6.4. Factor Loadings and Indicator Reliability

Standardized regression coefficients (factor loadings) were computed to estimate the degree of relationship between items of CAAS and their corresponding CAAS four factors. Higher values of factor loading indicate strong relationships between the item and the latent construct. The result showed that all items loaded to its respective construct. The findings were statistically significant at $p < .001$.

Table 9

Standardized Factor Loadings for Measurement Items

Construct	Item	Loading	SMC
Concern	Q1	.649	.422
Concern	Q2	.651	.424
Concern	Q3	.693	.481
Concern	Q4	.688	.473
Concern	Q5	.729	.531
Concern	Q6	.668	.446
Control	Q7	.639	.409
Control	Q8	.758	.575
Control	Q9	.745	.555
Control	Q10	.732	.536
Control	Q11	.735	.540
Control	Q12	.640	.410
Curiosity	Q13	.653	.426
Curiosity	Q14	.759	.577
Curiosity	Q15	.591	.349
Curiosity	Q16	.736	.542
Curiosity	Q17	.768	.590
Curiosity	Q18	.710	.505
Confidence	Q19	.697	.486
Confidence	Q20	.743	.552

Confidence	Q21	.627	.393
Confidence	Q22	.723	.523
Confidence	Q23	.611	.373
Confidence	Q24	.657	.431

As indicated in the table 12, the factor loadings were between .591 to .768. All items except Q15 exceeded the minimum acceptable threshold of .60. This indicated that items demonstrated satisfactory indicator reliability. Several items, including Q5, Q8, Q9, Q10, Q11, Q14, Q17, and Q20, showed particularly strong loadings above .70. Q15 with relatively lower loading coefficient with value of .591 were also retained in the factor. This is because the item loading was statistically significant, almost near to the minimum threshold value, and deemed conceptually relevant for curiosity construct.

4.1.6.5. Convergent Validity

Average variance extracted (AVE) were computed to assess convergent validity.

Table 10

Convergent Validity and Reliability

Construct	AVE
Concern	.463
Control	.504
Curiosity	.498
Confidence	.460

The AVE values ranged from .460 to .504. Although the obtained AVE score for concern, curiosity, and confidence were slightly lower than the acceptable value of .50, convergent validity was still considered acceptable because all CR values were above .70. This interpretation is consistent with the recommendation for construct validity (Fornell & Larcker, 1981).

4.1.6.6. Discriminant Validity

The Fornell-Larcker criterion and the Heterotrait-Monotrait ratio (HTMT) were used to the Discriminant validity of the adapted CAAS constructs. The study found that the square root values of AVE were higher than the inter-construct correlations values. This reflects there are satisfactory discriminant validity. The result of HTMT discriminant validity index were also providing further support that constructs are empirically distinct. All HTMT coefficients were below the acceptable threshold of .85.

Table 11

Discriminant Validity (Fornell–Larcker Criterion)

Construct	Concern	Control	Curiosity	Confidence
Concern	.680			
Control	.137	.710		
Curiosity	.149	.210	.706	
Confidence	.250	.132	.295	.678

Table 12

Heterotrait–Monotrait Ratio (HTMT)

Construct	Concern	Control	Curiosity	Confidence
Concern	—			
Control	.163	—		
Curiosity	.182	.244	—	
Confidence	.299	.156	.351	—

Additional discriminant validity indicators were also examined.

Table 13

Additional Discriminant Validity Indicators

Construct	AVE	MSV	ASV
Concern	.463	.089	.049
Control	.504	.057	.037
Curiosity	.498	.127	.072
Confidence	.460	.127	.081

The result showed that the AVE scores of all constructs were higher than the maximum and average shared variance estimates (MSV and ASV). These findings provide additional evidence for discriminant validity.

4.1.6.7. Factor Correlations

The study found statistically significant positive correlations between the latent constructs. The correlation values ranged from .161 to .357 (Table 17).

These findings suggest that the constructs were related but still distinct. The results suggested the multidimensional factor structure and reflect multicollinearity was not a concern.

Table 14

Latent Factor Correlations

Constructs	Correlation
Concern–Control	.161
Concern–Curiosity	.179
Concern–Confidence	.299
Control–Curiosity	.239
Control–Confidence	.164
Curiosity–Confidence	.357

4.1.6.8. Residual Analysis and Model Specification

The residual values were within acceptable limits. There were no large standardized residuals identified. Similarly, the modification indices did not suggest any major model problems that required re-specification. As a result, no correlated error terms were added. Overall, the model appeared theoretically meaningful and statistically acceptable.

4.1.7. Comparison of CAAS Scores Across Sociodemographic Variables

4.1.7.1. Gender Comparison of CAAS Scores

Gender difference in the mean score of CAAS total score were examined using an independent t-test. Normality assumptions were checked using different statistical procedures before performing the analysis. Normal distribution was observed for both groups with a $p > .05$.

The result indicated that the CAAS mean value for male and female students were nearly equal. Difference observed between the groups was not statistically significant $t(485) = 0.04$, $p = .967$. This result suggests that gender was not associated with differences in career adaptability among the participants.

Table 15

Gender Differences in CAAS Total Scores

Gender	N	Mean	SD	T	df	P
Male	244	73.88	15.00	0.04	485	.967
Female	243	73.82	15.56			

4.1.7.2. College Comparison of CAAS Scores

Differences in CAAS total scores among the colleges were examined using a one-way ANOVA statistical test. The result showed no significant difference among the colleges, $F(3, 483) = 2.54$, $p = .056$. The finding suggests that students from different colleges generally reported similar levels of career adaptability.

Table 16*Descriptive Statistics of CAAS Scores by College*

College	n	Mean	SD
College of Business and Economics	148	71.66	15.61
College of Social Sciences, Arts and Humanities (CSSAH)	197	73.72	14.02
College of Education and Language Studies (CELS)	70	75.17	13.63
College of Law and Governance Studies	72	77.43	15.80

Table 17*One-Way ANOVA of CAAS Total Scores by College*

Source	SS	Df	MS	F	P
Between Groups	1757.01	3	585.67	2.54	.056
Within Groups	111484.35	483	230.82		
Total	113241.36	486			

4.1.7.3. Year of Study Comparison of CAAS Total Scores

Group difference in the mean score of CAAS total score between 4th-year and 5th-year final students were examined using an independent samples t-test. The result indicated that difference between the groups was statistically significant ($t(485) = -2.16$, $p = .031$).

The descriptive statistics indicated that 5th-year students ($M = 77.43$, $SD = 13.63$) reported higher career adaptability scores than 4th-year students ($M = 73.23$, $SD = 15.46$). However, the magnitude of the observed effect was small with Cohen's d value of -0.28 . This showed that there was minimal practical difference between the groups on their career adaptability.

Table 18*Independent Samples t-Test of CAAS Total Scores by Year of Study*

Year of Study	N	M	SD	T	df	p	Cohen's d
4th Year	415	73.23	15.46	-2.16	485	.031	-0.28
5th Year	72	77.43	13.63				

4.1.7.4. Place of Origin Comparison of CAAS Total Scores

Group difference in the mean score of CAAS total scores based on students' place of origin were examined using an independent samples t-test. Difference observed between students from rural and urban areas was not statistically significant, $t(485) = 0.41$, $p = .684$.

Table 19

Independent Samples t-Test of CAAS Total Scores by Students' place of origin

Place of Origin	N	M	SD	T	df	P
Rural	189	74.21	15.66	0.41	485	.684
Urban	298	73.63	15.03			

4.1.7.5. CGPA Group Comparison of CAAS Total Scores

Differences in CAAS total scores among CGPA groups were examined using a one-way ANOVA. The findings indicated that there were no statistically significant group difference among the four categories of CGPA ($F(3, 483) = 0.62$, $p = .603$).

Table 20

Descriptive Statistics of CAAS Scores by CGPA Group

CGPA Group	N	M	SD
≤ 2.50	30	72.57	14.85
2.51 – 3.00	121	75.42	15.13
3.01 – 3.50	225	73.24	14.75
> 3.50	111	73.73	16.58

Note. M = Mean; SD = Standard Deviation

Table 21

One-Way ANOVA of CAAS Total Scores by CGPA Group

Source	SS	Df	MS	F	P
Between Groups	433.55	3	144.52	0.62	.603
Within Groups	112807.80	483	233.56		
Total	113241.36	486			

4.2. DISCUSSIONS

The present study assessed the reliability and validity of the Amharic version of CAAS. The overall findings showed that the adapted scale had demonstrated good reliability (.85) and valid to apply for Ethiopian undergraduate students.

The study first examined the internal consistency of adapted scale using Cronbach's alpha. The result indicated that Amharic CAAS had good reliability. The overall Cronbach's alpha obtained in this study had met the recommended requirement for psychological instruments. This suggested that the adapted scale items consistently measured career adaptability among Ethiopian university students.

The reliability value found in this study was slightly lower compared to other countries CAAS adaptation studies among university student samples. Previous studies from countries such as Korea, Nigeria, Indonesia, Germany, and the Philippines reported reliability coefficients above .90 (Christian Maggiori et al., 2015; Olugbade, 2016, 2016; Sulistiani et al., 2019; Tak, 2012; Tolentino et al., 2013). The original CAAS-International form also reported an overall reliability coefficient of .92 (Savickas & Porfeli, 2012). Comparatively similar findings of internal consistency were also reported in CAAS-French Scale (.87) in an international validations study. The slightly lower reliability coefficient in this study may be linked to language and cultural differences during the Amharic adaptation of the scale.

The study also assessed the reliability coefficient among the four CAAS subscales. The result showed that the four CAAS subscales demonstrated satisfactory internal consistency with Cronbach's alpha value ranged from .835 to .858. The Concern subscale alpha value (.837) reported in this study was very similar to the original CAAS result (.83) (Savickas & Porfeli, 2012). Control showed comparatively higher than the original international alpha value (.74). Curiosity also showed strong reliability ($\alpha = .853$) compared with the original value of .79. The Confidence subscale showed a slightly lower than the finding reported in the original scale (.85), though it is within an acceptable range.

The current findings had closely matched with the results reported in other countries. Studies from Korea, Indonesia, Germany, and Nigeria reported subscale alpha values mostly between .80 and

.90. Whereas, Turkish and Chinese studies reported relatively lower values in some dimensions. The four subscales of CAAS in the present study also had comparable alpha values. This could indicate that the Amharic items showed consistent performance across the four dimensions.

The higher reliability coefficient in the Control and Curiosity subscales of CAAS could be explained by the experiences of final-year students. During this period, students are tending to think more about their future career path, responsibilities, and career decisions. Another reason could be that students may found the wording used in translated versions were easier to understand the subscales. The scale developers also noted that career adaptability is shaped by social and cultural context (Savickas & Porfeli, 2012). Accordingly, some differences in reliability findings across different countries can be expected. Overall, the findings showed that the Amharic version of the CAAS had good internal consistency and can be used by Ethiopian university students.

Second, the study examined the content validity of the adapted CAAS. Experts had showed strong agreement regarding the item's relevance, clarity and cultural appropriateness. Only minor wording modifications were suggested to improve conceptual equivalence of the Amharic Version with the original version. For example, some experts suggested modifying expressions to preserve psychological concepts related to concern, self-reliance, exploration, awareness and observation. The high level of agreement in both the items and the adapted scale were understandable and suitable for Ethiopian undergraduate students.

Similar content validity findings were reported from other countries CAAS adaptation studies. Studies from Korea, Turkey, and Indonesia also used expert review during the process of adaptation (Buyukgoze-Kavas, 2014; Kim, 2021; Sulistiani et al., 2019). Whereas, many of those studies had primary focused on qualitative feedbacks of experts. This study, on the other hand, had included expert opinions to rate the scale items with CVI values. This further provides more reliable evidence for the suitability of the Amharic version.

Similar to this study, the Korean study by Kim (2021) had used quantitative measures for content validity. Despite the fact that the Korean study involved more experts (fifteen experts) than this study, both studies reported high agreement among reviewers. The Turkish study also used expert review and pilot testing, but formal CVI values were not reported (Buyukgoze-Kavas, 2014).

Another important point was that this study had maintained the original 24 items of CAAS. Only minor wording changes were made after comments and feedbacks given from experts. This may reflect that the original CAAS items were easily understandable and culturally acceptable for the Ethiopian university students. Unlike this study, in some other countries, such as in China, Brazil and Francophone, researchers had to remove or add items to improve cultural fit (Hou et al., 2012; Johnston, Broonen, et al., 2013; Teixeira et al., 2012). Some researchers added correlations between error terms or while others used item parceling to obtain a better model fit. For example, one Korean study had reported nine factors instead of the original four factors (Kim, 2021). In the current study, the original CAAS structure was well fitted to the data. This may suggest that the original model is effective in the Ethiopian context.

Third, the study examined the construct validity of the Amharic version of CAAS. Both EFA and CFA result supported the original four-factor structure of the scale as it retained concern, control, curiosity, and confidence in the Ethiopian context, further supporting the applicability of CAAS in Ethiopian context. The adequacy of data was supported by the KMO and Bartlett's test of Sphericity, confirming that the data adequately met the required assumptions and suitable for identifying latent constructs.

The EFA analysis identified clearly extracted four factor structure which clearly matched with theoretically expected dimensions of the original CAAS model. This suggests that the main concepts underlying the scale are also relevant for Ethiopian university students. The inter-factor correlation matrix among the four extracted factors were positive. The correlations ranged from .155 to .347, reflecting low to moderate associations between the dimensions. The findings were close to the original CAAS which reported correlations lies between .20 and .40. However, the correlations in this study were found lower compared to other similar studies conducted in Korea and Nigeria (Kim, 2021; Olugbade, 2016). This may show that the dimensions in this study were more distinct. To clarify, each dimension may reflect a well-defined factor structure of career adaptability to the Ethiopian university students.

The CFA findings had also supported the structure of the scale with an excellent Model fit across multiple fit indices. The study findings were comparatively higher than previous CAAS adaptation studies. Studies from Turkey, China, Nigeria and France reported lower fit values and higher

RMSEA scores (Buyukgoze-Kavas, 2014; Hou et al., 2012; Johnston, Broonen, et al., 2013; Olugbade, 2016).

The CFA result also confirmed that the four dimensions were structurally correlated and loaded onto one higher-order factor to represent overall career adaptability. This means that the four subscales (concern, control, curiosity, and confidence) are distinct, but still correlated to contribute to one general factor of career adaptability. This finding is aligned with the original CAAS theory.

Overall, the EFA and CFA findings showed that the Amharic version of the CAAS had good construct validity. The original four-factor structure was maintained, and the model fit the data well. The findings support the use of the scale among Ethiopian university students.

Finally, the study assessed to compare differences of the total mean score value of career adaptability across selected sociodemographic variables among Addis Ababa university Students. Generally, the total mean score of career adaptability was nearly similar across most groups. The only difference found in the study was in students' year of study.

The study found no statistically meaningful difference between male and female students in total CAAS scores. Similar findings were reported in studies from Macau, Thailand, and Nigeria, where gender had showed small effect on career adaptability (Khampirat, 2024; Olugbade, 2016; Tien et al., 2014). This could be attributed to the reason that both male and female students may have similar academic and career-related experiences at the university level. However, the finding was different from studies conducted in China (Hou et al., 2012) and some Francophone countries (Johnston, Broonen, et al., 2013). In their study, it is reported that male students scored higher in some dimensions of career adaptability. These differences may be linked to cultural and educational contexts (Savickas & Porfeli, 2012).

Year of study were found to be the only variable that showed a statistically significant difference. Fifth-year students scored higher CAAS mean scores than fourth-year students, although the effect size was relatively small. Even though both groups were close to graduation, students who stayed longer at the university may have had more time to build career-related skills and experiences. Extended years of study in higher education can allow students to experience different academic, social, and career challenges. This may help them become more prepared for future work and

career decisions (Rottinghaus et al., 2005a). However, the findings should be interpreted with caution because the difference might be related to variations in academic programs and field of study instead of year of study alone.

Similar findings were reported in previous studies among different populations. For example, the Career Future Inventory (CFI) study and other CAAS measure studies reported that participants at higher educational levels tended to demonstrate relatively higher career adaptability scores than compared to participants with less academic exposure (Rottinghaus et al., 2005a; Tien et al., 2014). Despite differences in study populations, comparable study findings may indicate that higher levels of educational exposure are associated with better career adaptability scores.

However, a study from China reported a contrast finding, where senior students scored lower career adaptability compared to first year students (Yang et al., 2023). In the current study, year of study were compared between fourth and fifth-year students, while both were graduating class. The difference may be linked to the longer training period. Students in longer programs, such as school of law participated in this study, may think more carefully on their career path as graduation becomes closer.

Place of origin (urban or rural) had not shown significant difference in CAAS total score. Similar findings were reported in the study done in Lithuania. Previous studies conducted in Ethiopia reported that students from urban area had greater access to career information and occupational opportunities (Aragaw Sergo, 2016; Tafere & Woldehanna, 2012). These findings contrasted findings reported in this study. This may be explained due to students receive similar learning experience and had equal access to career-related information once they joined the University.

The study also didn't find significance difference of total mean score of CAAS across CGPA categories. This suggested that scoring higher grades cannot always be interpreted as having better career adaptability skills.

In general, the result indicated that career adaptability had showed no variations across different characteristics of students, except year of study.

CHAPTER FIVE

SUMMARY, CONCLUSION, AND IMPLICATIONS

2.5. SUMMARY

The general objective of this study was to adapt and validate CAAS for Ethiopian University Students and to see the adapted Amharic version measures career adaptability in reliably and accurately. The study was conducted among final year students of Addis Ababa university students, Sidist Killo campus. The scale was developed designed to measure an individual's adaptability in responding to career-related tasks, transitions, and challenges. The tool consisted of 24 items categorized into four subscales called concern, control, curiosity, and confidence.

The study used an quantitative cross-sectional methodological study design that consisted both qualitative and quantitative phases. The study started with a qualitative phase that included translation and back translations, expert review and feedbacks. This was conducted to assess the content validity of the scale and to ensure the items were clear and suitable for Ethiopian students. Six Experts reviewed the translated items using a semi-structures content validity Index questionnaire and gave suggestions. Students who participated in the cognitive interviews also shared whether the questions were easy to understand. Based on experts' feedback, a few items wordings were revised before the final questionnaire was prepared.

The quantitative phase included 487 undergraduate students from four colleges at Addis Ababa University, Sidist Killo campus. Reliability analysis showed that the adapted CAAS had good internal consistency. The overall Cronbach's alpha value indicated that the scale measured career adaptability consistently. The four dimensions of the scale, namely concern, control, curiosity, and confidence, also showed acceptable reliability coefficients. The item analysis further indicated that the items were related to form a latent construct and measured the intended constructs appropriately.

The study also examined validity of CAAS. Content validity findings showed that experts had acceptable agreements to each item and the total scale as a whole, indicating the adapted CAAS were relevant and appropriate to Ethiopian Students. This suggests that the translation and adaptation process was successful. Construct validity was tested using EFA and CFA.

Before conducting EFA, the assumptions for factor analysis were checked using several assumptions checking statistics. The results showed that the data were suitable to conduct factor analysis. EFA had identified four factor structures that matched with the original CAAS structure. These factors represented concern, control, curiosity, and confidence. The findings demonstrated that the main structure of the original scale was maintained in the Ethiopian context.

CFA was then used to test how well the four-factor model fit the data. The model fit indices showed acceptable results overall. This means the proposed model worked well for the participants in this study. The convergent and discriminant validity results also supported the fitness of the model in the observed data. Most items showed good relationships with their corresponding factors, while the four dimensions remained separate from one another.

The study also looked at differences in career adaptability based on demographic variables. No major differences were found across all sociodemographic variables, except year of study. Fifth-year students scored slightly higher than fourth-year students. Overall, the findings of current study showed that the Amharic CAAS is a reliable and valid assessment tool for Ethiopian university students.

2.6.CONCLUSION

This study had successfully adapted and validated CAAS for Ethiopian undergraduate students. The findings showed that the scale consistently measure what it intends measure and support the multi-layered structure of the original scale. As therefore, the adapted CAAS can be used for academic research purpose and in real world application in Ethiopian context.

The reliability findings showed that the scale has good internal consistency. The total scale and the four dimensions produced acceptable reliability values. This means the items measured the intended constructs in a consistent way. The item-level analyses also showed that most items fit well within their respective dimensions.

The validity assessment findings were also positive as well. Experts assessed the translated items showed acceptable agreement that the items were understandable, relevant and culturally suitable for Ethiopian students. Both EFA and CFA findings supported the original factor-structure of CAAS. The four subscales of concern, control, curiosity, and confidence maintained their

conceptual equivalence in this context. This showed that key concepts of career adaptability are still relevant for Ethiopian undergraduate students.

In this study, the original 24 items of CAAS were retained without major changes, item removal or addition of items observed in some other countries. Instead, most items worked well as expected. This showed items and dimensions of adapted CAAS showed measurement equivalence with the original scale.

Comparison of different groups of variables with total CAAS score also give some insights into students' experiences at Addis Ababa University. Findings showed that fifth year students had scored higher career adaptability compared to fourth year students. This may suggest that career adaptability develops progressively as students spend more time in university and gain more academic and career-related experiences. Overall, the study demonstrated that the Amharic CAAS can be used in Ethiopian university students.

2.7. IMPLICATIONS

The present study findings have theoretical, practical, and research implications. First, the study provided psychometric evidences for Amharic version of CAAS among Ethiopian university students, thereby adding on to the growing cross-cultural insights on career adaptability. The study demonstrated that CAAS constructs are applicable in Ethiopian higher education context which broadens the application of career construction theory to culturally diverse populations including developing nations.

Second, the satisfactory reliability and validity of the adapted CAAS scale, have practical implications for practitioners to use the scale as an assessment tool to identify students' career adaptability related performances. In addition, professionals can use the adapted tool in different career related intervention or education program such as career guidance, counseling interventions, and curriculum designing that would ultimately help university students prepared for employment and future career development.

The result suggests that career adaptability displayed no variation in most sociodemographic variables. This may signify that career adaptability resources are widely pertinent across variety of groups of students. Nonetheless, observed difference between 4th and 5th year students indicate

that extended years of study in higher education may help students become more prepared for future work and career decisions. This indicates the importance of integrating career development activities throughout university education and to all programs.

Methodologically, the study provides evidence that item adaptation process required careful attentions that subtle wording changes enhance the clarity and appropriateness of items, thereby preserve the conceptual equivalence with the original item and improve the measurement accuracy. This highlights culturally sensitive adaptation procedures are required for psychological measurement tools to ensure validity and conceptual equivalence.

Finally, future researchers may use the result findings presented in this study to conduct comparative studies across different educational and cultural context in Ethiopia. It also may help the researchers to use the tool to conduct researches on career development, employability, and career-related decisions.

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Annex I: Participant Information Sheet

My name is **Barkot Maeregu**, and I am a postgraduate student in the **MA in Counseling Psychology** program at Addis Ababa University. I am conducting a research study titled *“Adaptation and Validation of the Career Adapt-Ability Scale (CAAS) among Addis Ababa University Undergraduate Students.”*

The purpose of this study is to adapt and validate the CAAS so it can be effectively used with undergraduate students in our local context. This tool aims to assess students’ ability to adapt to changes and challenges in their career paths, which can be an important step in providing better career guidance and support. If you agree to participate, you will be asked to complete an online questionnaire that takes approximately 15–20 minutes. Your responses will remain confidential, and the information you provide will be used solely for research purposes. Participation is entirely voluntary, and you may withdraw at any time without facing any negative consequences.

Annex II: Consent Form – Online ODK Version

URL link: [Click here to check the Kobo toolbox webform](#)

Research Title: Adaptation and Validation of the Career Adapt-Ability Scale (CAAS) among Addis Ababa University Undergraduate Students

Researcher: Barkot Maeregu, barkot1maeregu@gmail.com

Program: MA in Counseling Psychology, Addis Ababa University

Purpose of the Study: This study aims to adapt and validate the Career Adapt-Ability Scale (CAAS) for Ethiopian university students. The goal is to ensure the tool is culturally appropriate, reliable, and useful in assessing students' career adaptability, which will help improve career guidance and support services.

Participation Details: If you agree to participate, you will complete an online questionnaire that will take about 15–20 minutes. The questions will ask about your attitudes, thoughts, and experiences related to your career and future plans.

Voluntary Participation: Your participation is entirely voluntary. You may stop at any point without penalty, and you may skip any question you prefer not to answer.

Confidentiality: Your responses will be anonymous. No personal identifiers will be collected. The data will be stored securely and used only for research purposes.

Potential Risks and Benefits: There are no known risks from participating. While you may not benefit directly, your participation will contribute to improving career guidance for students at Addis Ababa University and beyond.

Consent Question (Mandatory):

Please indicate your choice:

- ☐ Yes, I have read and understood the above information, and I voluntarily agree to participate in this study.
- ☐ **No, I do not wish to participate.**

(If “No” is selected, the form will end automatically.)

ANNEX III: SOCIO-ECONOMIC QUESTIONNAIRE

Instruction: This questionnaire is designed to gather background information about participants in the study. Please answer all questions honestly.

SECTION A: PERSONAL INFORMATION

1. **Age:** _____ years
2. **Gender:**
☐ Male
☐ Female
3. **College / School:**
☐ College of Education and Behavioral Studies
☐ College of Social Sciences, Arts & Humanities
☐ College of Law and Governance Studies
☐ College of Business and Economics
4. **Department / Program of Study:** _____
5. **Year of Study:**
☐ 4th Year
☐ 5th Year
Cumulative Grade _____

SECTION B: BACKGROUND INFORMATION

6. **Place of Origin (Before University):**
☐ Urban
☐ Rural
7. **Region of Origin:**

☐ Tigray	☐ Afar
☐ Amhara	☐ Oromia
☐ Somali	☐ Central Ethiopia
☐ Sidama	☐ South Ethiopia
☐ Benishangul-Gumuz	☐ South West Ethiopia
☐ Gambella	☐ Harari
☐ Addis Ababa	☐ Diredawa City Administration
☐ Other (please specify): _____	
8. **Mother Tongue:** _____

SECTION C: FAMILY AND SOCIOECONOMIC INFORMATION

10. Father's Highest Education Level:

- ☐ No formal education
- ☐ Primary school
- ☐ Secondary school
- ☐ Diploma
- ☐ Bachelor's degree
- ☐ Master's degree or higher

11. Mother's Highest Education Level:

- ☐ No formal education
- ☐ Primary school
- ☐ Secondary school
- ☐ Diploma
- ☐ Bachelor's degree
- ☐ Master's degree or higher

12. Family's Main Source of Income:

- ☐ Farming
- ☐ Government employee
- ☐ Private sector
- ☐ Business
- ☐ Daily labor
- ☐ Other (please specify): _____

13. Education Financing:

- ☐ Government scholarship
- ☐ Family support
- ☐ Self-funded
- ☐ Other (please specify): _____

SECTION D: CAREER INFORMATION

14. Have you ever received formal career guidance before?

- ☐ Yes
- ☐ No

15. How would you rate your access to career-related information?

- ☐ Very good
- ☐ Good
- ☐ Fair
- ☐ Poor

ANNEX III: CAREER ADAPT-ABILITY SCALE (CAAS) QUESTIONNAIRE-Original Version

Instruction: Different people use different strengths to build their careers. No one is good at everything, each of us emphasizes some strengths more than others. Please rate how strongly you have developed each of the following abilities using the scale below.

No.	Item	5 (Strongest)	4 (Strong)	3 (Moderately Strong)	2 (Somewhat Strong)	1 (Not Strong)
1	Thinking about what my future will be like	☐	☐	☐	☐	☐
2	Realizing that today's choices shape my future	☐	☐	☐	☐	☐
3	Preparing for the future	☐	☐	☐	☐	☐
4	Becoming aware of the educational and vocational choices that I must make	☐	☐	☐	☐	☐
5	Planning how to achieve my goals	☐	☐	☐	☐	☐
6	Concerned about my career	☐	☐	☐	☐	☐
7	Keeping Upbeat	☐	☐	☐	☐	☐
8	Making decisions by myself	☐	☐	☐	☐	☐
9	Taking responsibility for my actions	☐	☐	☐	☐	☐
10	Sticking up for my beliefs	☐	☐	☐	☐	☐
11	Counting on myself	☐	☐	☐	☐	☐
12	Doing what's right for me	☐	☐	☐	☐	☐
13	Exploring my surroundings	☐	☐	☐	☐	☐

14	Looking for opportunities to grow	☐	☐	☐	☐	☐
15	Investigating options before making a choice	☐	☐	☐	☐	☐
16	Observing different ways of doing things	☐	☐	☐	☐	☐
17	Probing deeply into questions I have	☐	☐	☐	☐	☐
18	Becoming curious about new opportunities	☐	☐	☐	☐	☐
19	Performing tasks efficiently	☐	☐	☐	☐	☐
20	Taking care to do things well	☐	☐	☐	☐	☐
21	Learning new skills	☐	☐	☐	☐	☐
22	Working up to my ability	☐	☐	☐	☐	☐
23	Overcoming obstacles	☐	☐	☐	☐	☐
24	Solving problems	☐	☐	☐	☐	☐

Response Scale:

1 = Not strong 2 = Somewhat strong 3 = Moderately strong 4 = Strong 5 = Strongest

ANNEX IV: Content Validity Evaluation Form: Career Adapt Ability Scale (CAAS)

Section A: Expert Information

Name (Optional): _____

Area of Expertise (Field of Study): _____

Institution: _____

Years of Experience: _____

Section B: Instructions

Dear Expert,

You are kindly requested to evaluate the following questionnaire items in terms of their relevance to the construct being measured. This instrument is the Career Adapt-Abilities Scale (CAAS), and it is being studied for validation as an assessment tool in Amharic for Ethiopian university students. The instrument has been translated into Amharic from the original English version.

Please use the AMHARIC version for rating and use the ENGLISH version as a reference.

Rating	Description
1	Not relevant
2	Somewhat relevant
3	Quite relevant
4	Highly relevant

Section C: Item Evaluation Table

No.	Amharic Version	Back translated Version	Rating (1–4)	Comments
1	ግንዛቤ ስላለሁ ስለዚህ ግንዛቤ ግንዛቤ ስላለሁ ስለዚህ	Thinking about what my future life would look like	☐ 1 ☐ 2 ☐ 3 ☐ 4	
2	ግንዛቤ ስላለሁ/ግንዛቤ ስላለሁ ግንዛቤ ስላለሁ ግንዛቤ ግንዛቤ ስላለሁ ግንዛቤ	Understand that my current choices/decisions shape my future life	☐ 1 ☐ 2 ☐ 3 ☐ 4	
3	ግንዛቤ ስላለሁ	Prepare for the future	☐ 1 ☐ 2 ☐ 3 ☐ 4	
4	ግንዛቤ ስላለሁ ግንዛቤ ግንዛቤ ስላለሁ ግንዛቤ	Knowing the available educational and career options	☐ 1 ☐ 2 ☐ 3 ☐ 4	
5	ግንዛቤ ስላለሁ ግንዛቤ ግንዛቤ ስላለሁ ግንዛቤ	Plan on how to meet my goals	☐ 1 ☐ 2 ☐ 3 ☐ 4	
6	ግንዛቤ ስላለሁ ግንዛቤ ግንዛቤ	I am concerned about my future career	☐ 1 ☐ 2 ☐ 3 ☐ 4	
7	ግንዛቤ ስላለሁ ግንዛቤ ግንዛቤ	Have optimistic views about situations	☐ 1 ☐ 2 ☐ 3 ☐ 4	
8	ግንዛቤ ስላለሁ	Decide for oneself	☐ 1 ☐ 2 ☐ 3 ☐ 4	
9	ግንዛቤ ስላለሁ ግንዛቤ ግንዛቤ	Take responsibility for my actions	☐ 1 ☐ 2 ☐ 3 ☐ 4	
10	ግንዛቤ ስላለሁ	Remain firm on my beliefs	☐ 1 ☐ 2 ☐ 3 ☐ 4	
11	ግንዛቤ ስላለሁ ግንዛቤ	I rely on myself	☐ 1 ☐ 2 ☐ 3 ☐ 4	
12	ግንዛቤ ስላለሁ ግንዛቤ ግንዛቤ	Do what I think is right	☐ 1 ☐ 2 ☐ 3 ☐ 4	
13	ግንዛቤ ስላለሁ ግንዛቤ ግንዛቤ	Observe things around me	☐ 1 ☐ 2 ☐ 3 ☐ 4	
14	ግንዛቤ ስላለሁ ግንዛቤ	Look for career opportunities to grow	☐ 1 ☐ 2 ☐ 3 ☐ 4	
15	ግንዛቤ ስላለሁ ግንዛቤ ግንዛቤ	Consider choices before decision	☐ 1 ☐ 2 ☐ 3 ☐ 4	
16	ግንዛቤ ስላለሁ ግንዛቤ ስላለሁ ግንዛቤ ስላለሁ ግንዛቤ	Observing how things are done in different ways	☐ 1 ☐ 2 ☐ 3 ☐ 4	
17	ግንዛቤ ስላለሁ ግንዛቤ ግንዛቤ	Deeply research questions I have	☐ 1 ☐ 2 ☐ 3 ☐ 4	

18	□□□□□ □□□□ □□□□ □□□	Have interest in new opportunities	□1 □2 □3 □4
19	□□□□□□ □□□□ □□□□□	Perform duties proficiently	□1 □2 □3 □4
20	□□□□□ □□□□ □□□□	Caution to do things properly	□1 □2 □3 □4
21	□□□□ □□□□□□ □□□	Learn new skills	□1 □2 □3 □4
22	□□□□□ □□□ □□□□	Work to my capacity	□1 □2 □3 □4
23	□□□□□□□ □□□□	Overcome obstacles	□1 □2 □3 □4
24	□□□□□ □□□□	Solve problems	□1 □2 □3 □4

Section D: General Feedback

Clarity of items:

Cultural appropriateness:

Suggestions for improvement:

ANNEX V: Final Amharic version of Career Adapt Ability Scale (CAAS-Amharic)

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ስም ____

ዕድሜ _____ አንዱን ያክብቡ:- ወንድ ወይም ሴት

መመሪያ

ሰዎች በሙያዊ ጉዟቸው ለመሻሻል እና ከስራቸው ጋር ለመላመድ የተለያዩ መንገዶችን ይጠቀማሉ። ማንም ሰው በሁሉም ረገድ ብቃት ያለው ስላልሆነ፤ እያንዳንዳችን ከሌሎች ሰዎች ይልቅ በተወሰኑ ሙያዊ ክህሎቶች ላይ እናተኩራለን። እባክዎ ከዚህ በታች ያለውን መመዘኛ በመጠቀም የተዘረዘሩትን ሙያዊ ክህሎቶች ምን ያህል እንዳዳበሩ ይጠቁሙ።

ክህሎቶች/ ጠንካራ ጎኖች	እጅግ በጣም ጠንካራ 5	በጣም ጠንካራ 4	ጠንካራ 3	በመጠኑ ጠንካራ 2	ጠንካራ አይደለም 1
1. የወደፊት ሕይወቴ ምን እንደሚመስል ማሰብ					
2. የዛሬ ምርጫዎቼ/ውሳኔዎቼ የወደፊት ሕይወቴን እንደሚቀርጹ/እንደሚወስኑ መገንዘብ					
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8. በራስ መወሰን					
9. ለድርጊቶች ሃላፊነት መውሰድ					
10. በእምነቱ መጽናት					
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የደረጃ መስጫ አራት ቁልፍ/ዋና ልኬቶች

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የመቆጣጠር ችሎታ = ተ. ቁ 7-12

የማወቅ ጉጉት = ተ. ቁ 13 -18

በራስ መተማመን = ተ. ቁ 19 - 24

ራስን ከሙያ ጋር የማስማማት ክህሎት መመዘኛ = ተ. ቁ 1- 24