

Empowering Young Professionals and University Students in Career Decision-Making and Preparedness Through the Use of SCCT and CMI

*Ziauddin¹, Ayesha Soomro², Imtiaz Ali Mangi³

1. Lecturer Sukkur IBA University, (Corresponding Author), ziauddin@iba-suk.edu.pk
2. MSCP Scholar / Student RIPHAH International University, Islamabad, psysoomro@gmail.com
3. M.Phil Scholar, Department of Psychology, University of Karachi

Abstract

The study aimed to apply the Social Cognitive Career Theory (SCCT) and the Career Maturity Inventory (CMI) to promote and facilitate career decision making career and preparedness among university learners as well as young professionals. The research provides an optimal theoretical framework for career counseling by integrating SCCT's emphasis on self-efficacy, outcome expectancies, and personal goals with CMI's rigorous examination of the attitudinal and cognitive dimensions of career maturity. A mixed-methods approach was employed, utilizing surveys as the quantitative instrument, while interviews and focus groups contributed qualitative insights. There were observed effects between self-efficacy and career maturity, influenced by moderating variables such as gender and academic discipline. The findings supported the linkage between self-efficacy and career maturity and moderated by gender and academic disciplines. Challenges include cultural and social conventions regarding the constitutes of readiness were emphasized, along with the role of career knowledge and mentorship empower self-efficacy. The study highlights the need for culturally appropriate career development that is oriented to employ cognitive and attitudinal approaches to increase the self-ability of clients dealing with current career issues. The study emphasized the need for culturally relevant career development that employs cognitive and attitudinal strategies to enhance clients' self-efficacy in addressing contemporary job challenges.

Keywords: Social Cognitive Career Theory, Career Maturity Inventory, Career Readiness, Self-Efficacy

Introduction

Career development is a multifaceted, lifelong process wherein individuals direct their productive efforts considering psychological, social, and environmental factors (Niati, Siregar & Prayoga 2021). The process is progressive, involving self-awareness, future envisioning, and the application of approaches and concepts to inform decision-making. Two theoretical frameworks that are central to career planning and readiness are Social Cognitive Career Theory (SCCT) and Career Maturity Inventory (CMI). These models can be considered as useful heuristic models for the understanding of the processes of the career decision making, readiness and adaptability, so they are crucial not only from the theoretical perspective, but also from the practical one as well. SCCT in particular was developed by Lent, Brown and Hackett (1994) and is an elaboration of Bandura's Social Cognitive Theory of career development where the subjective variables of self-efficacy, outcome expectations, and personal preferences for achievement goals are important sources of guidance to career interests, choices and work performance. It emphasizes the active

hypothesis of cognitive mediation and environmental press, postulating that the psychological factors determining people's orientations play a major role in shaping their careers (Lent, Brown, & Hackett, 1994). On the other hand, Career Maturity Inventory by John Crites formulated in 1978 is utilized as an assessment tool to assess the individual for career choice prepared. It is for this reason that the CMI is predicated on the premise that career maturity has both attitudinal and cognitive components that are fundamental to sound decision making as postulated by Crites (1978). The first is the emotional aspect where one is mentally prepared and receptive to career searching and the second is the functional aspect of learning and expertise needed in decision making in careers. Combined, these dimensions offer a framework for career readiness evaluation and determination of areas of needs for intervention. The usefulness of these tools is in the utilization in the provision of career counseling and education. For instance, in learning institutions, SCCT has been applied to assist learners to match academic choices with career plans especially in contexts that have diversity and complexity (Brown & Lent, 2019). Likewise, the CMI has played a key role in finding out students' deficits in career preparation, so that teachers and counselors can modify their intervention approaches (Savickas, 2005). All these frameworks have also been relevant especially in workforce development to help adults to acquire new career and skills within a changing labor market (Patton & McMahon, 2014).

Thus, the role of SCCT and CMI is most useful when considering 21st century career concerns. The factors relating to globalization, technological and other advancements in the labor market are ever-changing and hence necessitate more of the cultures of career self-management and career literacy (Brown et al., 2020). SCCT thus strengthens CMI's focus on readiness frameworks with flexibility and personal resilience so that a comprehensive system can be provided to that seeking career advice. For instance, the guardrails for identifying and managing systemic barriers offered by SCCT can help people to overcome these obstacles; at the same time, CMI gives them a practical, quantifiable way to chart and plan their progress. However, such models do have certain research limitations that are worth mentioning. The use of self-reported data in SCCT means that they can contain social desirable response bias especially for subjects in multicultural contexts where self-efficacy perceptions might differ (Byars-Winston et al., 2010). For the same reason, the global structure of the CMI does not encompass each participant's individual circumstances and difficulties experienced by minorities (Lent & Brown, 2020). Such limitations suggest the need for more research and the continued evaluation of these tools in an attempt to make them more relevant to different client populations' career development needs. This paper seeks to review both the theoretical and empirical literature regarding SCCT and CMI, and assess their application. Hence, the aim of this study is to capture that understanding of how these frameworks can enhance the pursuit of career preparedness and power. Thus, highlighting primary features of their contribution as well as the hardships connected with their work, the paper profiles the significance of initiatives that steer career paths in an uncertain and complex world.

Literature Review

Theoretical Foundations: SCCT and CMI

Two theories have been found to be very valuable in the understanding of career development and decision-making and these include the Social Cognitive Career Theory and the Career Maturity Inventory. SCCT developed by Lent, Brown and Hackett (1994) is based on Social Cognitive Theory of Bandura focusing on self-efficacy and outcome expectations for choosing or developing career interests. Subsequently, researchers have continued to test the nomological network of SCCT across various contexts, which include academic persistence, career transition and workforce adaptability. On the other hand, the Career Maturity Inventory (CMI), scripted by Crites (1978), provides a framework for measuring career readiness that is based on attitudinal and cognitive characteristics. More current studies have shown how the integration of these models

captures the complexity of career development for education and work context (Brown & Lent, 2019; Damodar et al., 2024). The current section provides a critical analysis of literature on SCCT and CMI, the use of the two models and their rationale especially towards shaping career counseling and intercessory efforts.

Self-Efficacy and Career Decision-Making

Thus, self-efficacy, a central concept in SCCT, is vital in outlining how individuals decide on careers and copes with barriers. Current research highlights the importance of self-efficacy in relating to career adaptability and career resilience among students and young people especially. For example, Chui, Li and Wang (2022) tested the correlation between perceived over qualification and career uncertainty with university students as the participants. Thus, their studies demonstrated the mediating role of career self-efficacy regarding detrimental impacts of over qualification, which implies that the interventions aimed at self-efficacy can effectively eliminate hesitation and foster career advancement. Conformably, Ginevra et al. (2020) noted that practical learning activities such as mentorship and experiential learning help in enhancing students' self-efficacy for career readiness. Additionally, self-efficacy impacts not only the learners themselves and their actions but also their capacity to overcome various systems' constraints. Wang et al ((2023)) examined the mediating effect of social support as a moderator and perceived over qualification in relation to self-efficacy in a China setting. Additionally, it was revealed that social support buffers can positively affect self-efficacy and career decision-making processes, suggesting that SCCT should consider social context integration within practice.

Measuring Career Readiness with CMI

The CMI has been widely used to assess readiness for careers across different types of groups of people. CMI's two dimensions: attitudinal and cognitive capture all the aspects that may help to assess an individual's readiness for making career decisions. CMI has been used in studies more recently to determine the usefulness of career interventions. Damodar et al. (2024) carried out a scoping review where the authors observed that the cognitive component of CMI could be effective in determining the extent of 'don't know' responses about careers and the weaknesses in career decision-making. The attitudinal component of the instrument could be beneficial in evaluating the level of readiness and eagerness towards career exploration. CMI also has been used in cross-cultural research where scholars establish the usefulness of the model in diverse cultures. Patton and McMahon (2020) describe students in Australia and Southeast Asia to establish that different cultures have different career readiness levels. More importantly, the studies highlight the importance of culture-sensitive programs that meet the requirements and expectations of such groups.

Integration of SCCT and CMI in Career Counseling

Combining SCCT with CMI provides a strong theoretical framework for the practice of career counseling because it allows practitioners to include both the thinking and feeling aspects of the client. (Damodar, P., 2024). The above mentioned sources also expound practical advantages of integrating these models into one. Ginevra et al. (2020) noted that while SCCT offers clearer guidance on self-efficacy and goal setting, which may help to focus on readiness as identified by the CMI. Career counseling is especially beneficial for this integration due to its ability to define and explain psychological as well as cognitive aspects of indecision. Grosemans et al. (2024) used a cross-sectional approach with a focus on recent graduates to explain the progression of career engagement and employability over time. They confirm with the theoretical foundation of SCCT that suggests that self-efficacy and career behavior relate via reciprocal determinism. The inclusion of the CMI into this framework enabled the researchers to capture career readiness at different points in time, which was useful for understanding how to develop career development interventions over time.

Technological Advancements in Career Development

Digital integration has become even more important with the two frameworks of SCCT and CMI as more organizations go digital. Brown and Lent (2019) considered future developments of SCCT with specific focus on the role of online applications which can support effective career development. Some of the tests that are adopted in assessment of constructs of SCCT and CMI in the internet include the self-efficiency tab that is virtual and other career maturity tests. Grosemans et al. (2024) building on previous research, extended the investigation on the effects of technology in the process of career construction with young working populations and realized that technology-based interventions can enhance career constructive processes and career well-being. When used in a classroom setting or during professional development, these tools offer feedback, suggestions for further study, and engagement in a manner SCCT that focuses on self-motivated learning and goal achievement.

Cultural Considerations in SCCT and CMI Applications

Consequently, the cultural appropriateness of SCCT and CMI continues to emerge as a topic of interest. According to Wang et al. (2023), culture was considered primary in influencing career self-efficacy and readiness. They also showed the social support and community influences in career decision-making capabilities in Chinese culture. In the same regard, Patton and McMahon 2014 argued that career maturity assessments ought to be changed to respond to the cultural demographics of various cultural population expectations. Such results suggest that it is imperative to develop culturally appropriate intervention that empowers the use of SCCT and CMI. For instance, including culturally appropriate case and examples in the career tests would improve their reliability and usefulness. Further, knowledge about cultural differences in self-efficacy beliefs and career attitudes will prepare the counselors to develop effective interventions that match cultural orientations.

Methodology

Research Design

This research work adopted a mixed-methods research approach to examine the effectiveness of SCCT and CMI in improving career preparedness and choice. The use of Mixed-methods approach is an attempt to combine the strong points of both Qualitative and Quantitative research with the aim of giving a broader view of the usefulness of the frameworks. The quantitative data were gathered by using the survey questionnaire and qualitative through interviewing the career counselors and participants' and focus group discussions.

Sampling and Participants

University students and early career professionals were targeted in the study as most of them are in the 'looking for' stage and are most likely to be concerned with career related concerns. This study used a technique referred to as in a bid to capture participants across different gender, SES and academic discipline. The research targeted 300 participants, 200 of whom provided quantitative data, while 100 engaged in a qualitative interview. The inclusion criteria were that participants had to be between 18 and 30 years old and either students or at the early stages of their career.

Data Collection Procedures

Quantitative Data

Quantitative data were collected by structured instruments developed specifically based on SCCT and CMI model constructs. Career Maturity Inventory (CMI) was completed to measure participants' readiness for career development in regards to attitudes and cognition. Consequently,

participants completed a self-efficacy questionnaire, which was also developed in accordance with SCCT. These two instruments were disseminated online using a secure research platform, and the participants completed the assessments in about 30 minutes.

Qualitative Data

Quantitative data were obtained through the administration of questionnaires together with qualitative data collected through focus group discussions and interviews. These methods enabled a rich focus on participants' narratives of their decision making process and self-efficacy, as well as perceived facilitators or barriers. The interview guide aim at assessing the participants' career beliefs and aspirations, perceived barriers, and influence of social-contextual factors, in terms of SCCT constructs. The focus group discussions were organized into smaller groups, each comprising 6 to 8 participants, to encourage engagement and capture a diverse range of perspectives.

Data Analysis

Quantitative Analysis

Data collected for the study were analyzed using quantitative descriptive statistics to determine the frequency and distribution of variables. Measures of central tendencies, including means and standard deviations were used to report the participants' score on the CMI and self-efficacy questionnaires. Descriptive statistics, correlation analysis and multiple regressions were applied in establishing the predictive links between the causal variables namely self-efficiency, career-ness readiness and demographic variables. Moreover, to investigate specific hypotheses comparing mean scores of the two constructs, ANOVA tests were used to identify differences by demographic variables.

Qualitative Analysis

The qualitative data were analyzed through thematic approach used to look for recurring patterns that could be embraced as themes. Interviews and focus group discussions conducted were transcribed without omission and the use of Nvivo software for coding the data was employed. The analysis followed a six-step framework: These include; familiarization, coding, theme development, theme review, definition and final report. These themes were compared with SCCT constructs such as self-efficacy, outcome expectations and perceived environmental supports to derive a more systematic approach to understanding the data.

Ethical Considerations

The analysis of the study received ethical clearance from the institutional review board (IRB). Before agreeing to take part in the study, those enrolled were informed of the objectives, methods and effects of the study. Measures for anonymity and confidentiality involved the use of code numbers for participants and the archiving of data on secure servers. Moreover, participants were free to withdraw from the study at any time with no reasons asked of them.

Validity and Reliability

To increase the credibility of the instruments, the CMI and SCCT-based self-efficacy scales underwent the process of pilot testing using a sample of 30 subjects. The internal consistency coefficients were determined by Cronbach's alpha, which is more than 0.80 for both instruments, proving the reliability. Content validity was confirmed with the help of the expert opinion that involved the assessment of the applicability and the inclusion of all relevant facets of the assessment tools by career counselors and psychologists.

Limitations

The study has some limitations despite using a mixed-methods approach, which ensures comprehensive findings. The use of self- administered questionnaires both in quantitative and qualitative research designs may lead to response bias. Moreover, the study is grounded on a cross-sectional survey design, which restricts the possibility of inferring causality. Future studies may overcome these limitations through the use of longitudinal designs and/or experimental manipulations.

Results

Quantitative Results

The quantitative data analysis helps gain insights into the association between career maturity, self-efficacy, and demographic/contextual variables. The results are reported using descriptive statistics, correlation analyses, group comparisons, and regression analyses, with elaborated explanations for each.

Descriptive Statistics

The descriptive statistics summarize the key characteristics of participants’ scores on the Career Maturity Inventory (CMI) and SCCT-based self-efficacy scale. Table 1 provides the overall mean, standard deviation, and range for the total scores as well as the dimensions of the CMI and self-efficacy.

Table 1 Descriptive Statistics

Variable	Mean	Standard Deviation	Minimum	Maximum
Career Maturity (Total)	78.5	12.3	50	100
Attitudinal Dimension	40.2	6.8	25	50
Cognitive Dimension	38.3	7.5	20	50
Self-Efficacy	84.1	10.9	60	100

The total career maturity score average ($M = 78.5$, $SD = 12.3$) depicts that the participants at a moderate level of preparedness for career decision-making. The scores on the attitudinal dimension are slightly higher ($M = 40.2$) than on the cognitive dimension ($M = 38.3$), which suggest that participants are more emotionally ready to consider careers than they are knowledgeable about what is needed to make career decisions. The self-efficacy scores are also not very low ($M=84.1$, $SD=10.9$) this reflect confidence that participant has to perform career purpose goals. However, the obtained scores encompass a large number of points (min = 50; max = 100) in all the variables, which speaks about individual distinctions and emphasizes the importance of an individual approach to clients.

Correlation Analysis

To understand the relationships between variables, a Pearson correlation analysis was conducted. Table 2 presents the correlations between career maturity, self-efficacy, and demographic variables.

Table 2 Correlation Analysis

Variable	Self-Efficacy	Career Maturity	Age	Gender (1 = Male, 2 = Female)
Self-Efficacy	1	0.72**	0.31**	0.18
Career Maturity	0.72**	1	0.40**	0.25*
Age	0.31**	0.40**	1	0.05
Gender (1 = Male, 2 = Female)	0.18	0.25*	0.05	1

The relationship between self-efficacy and career maturity is significant and positive ($r = 0.72$, $p < 0.01$), which supports SCCT postulate that enhanced self-efficiency is a unique indicator of career readiness. Career-related self-efficacy has moderate and positive relationship with age indicating that being older, participants are ready for career related decisions ($r = 0.40$, $p < 0.01$) perhaps due to higher chances of indulging in career exploration. Further the analysis by gender depicts that females have slightly higher scores and the correlation between gender and career maturity is positive though insignificant and highly significant ($r = 0.25$, $p < 0.05$). Self-efficacy is fairly associated with age ($r = 0.31$, $p < 0.01$) also shows that the confidence in one's own ability to produce does increase with age. The results evidence that career maturity and self-efficacy are incremental and mediated by personal and environmental conditions.

Group Comparisons

To explore differences in career maturity and self-efficacy across demographic groups, an analysis of variance (ANOVA) was conducted. Figure 1 illustrates the mean scores of career maturity and self-efficacy across three academic disciplines: STEM, Business, and Humanities.

Table 3 Mean Scores of Career Maturity and Self-Efficacy by Academic Discipline

Discipline	Career Maturity (M)	Self-Efficacy (M)
STEM	82.3	88.4
Business	78.9	83.5
Humanities	75.6	81.2

Participants in STEM disciplines scored the highest in both career maturity ($M = 82.3$) and self-efficacy ($M = 88.4$), followed by Business (Career Maturity: Science = 78.9, Self-Efficacy Science = 83.5 and Humanities = 75.6 Self-Efficacy Humanities = 81.2. These differences may be due to differences in structure because STEM careers tend to have a clear hierarchy of progressive steps and usually offer shared applied practice experiences that lead to higher readiness and confidence. While science students may engage with clearer and concrete goal plans about their future careers, humanities students may have more ambiguous or fuzzy ideas about their future paths, which can influence their career readiness or self-confidence levels. The variation in the scores by discipline is also significant ($F = 3.71$, $p < 0.05$), which means that an individual approach is crucial when it comes to handling career development issues among students

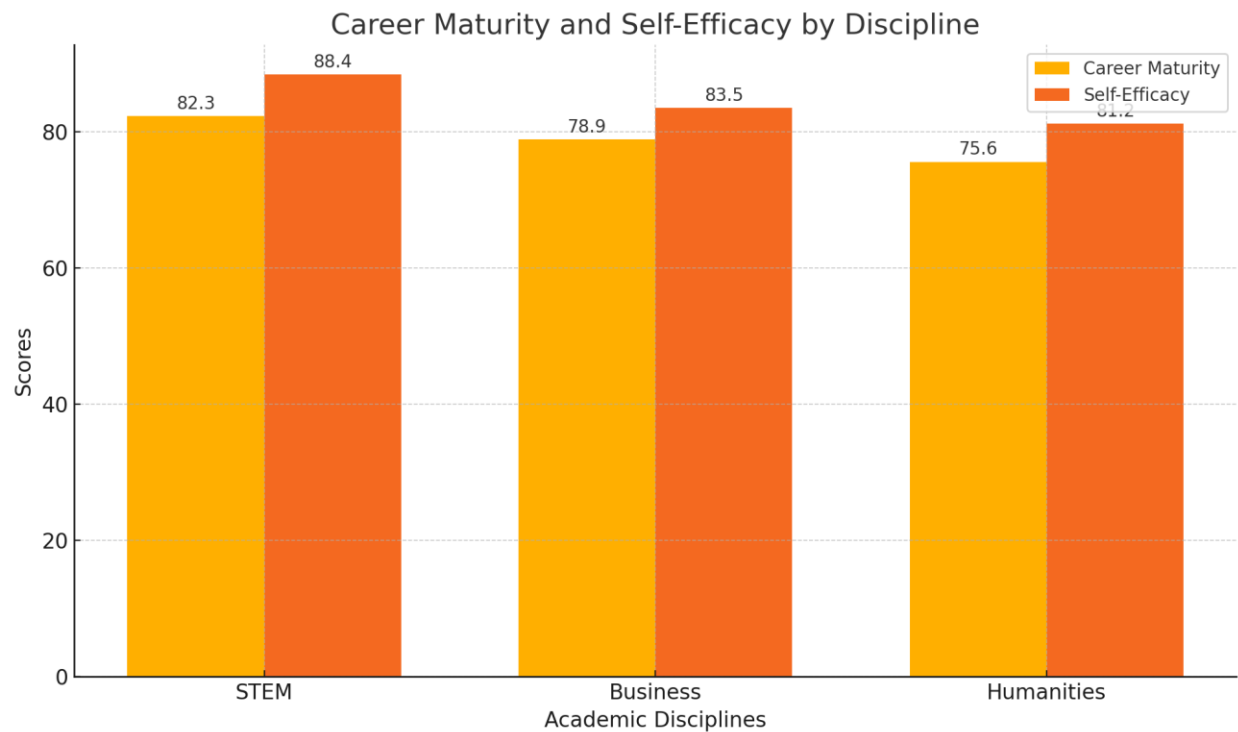


Figure 1 Career Maturity and Self-Efficacy by Discipline

Career Maturity and Self-Efficacy by Academic Discipline: This bar chart shows the mean scores for career maturity and self-efficacy across STEM, Business, and Humanities disciplines, highlighting differences between fields.

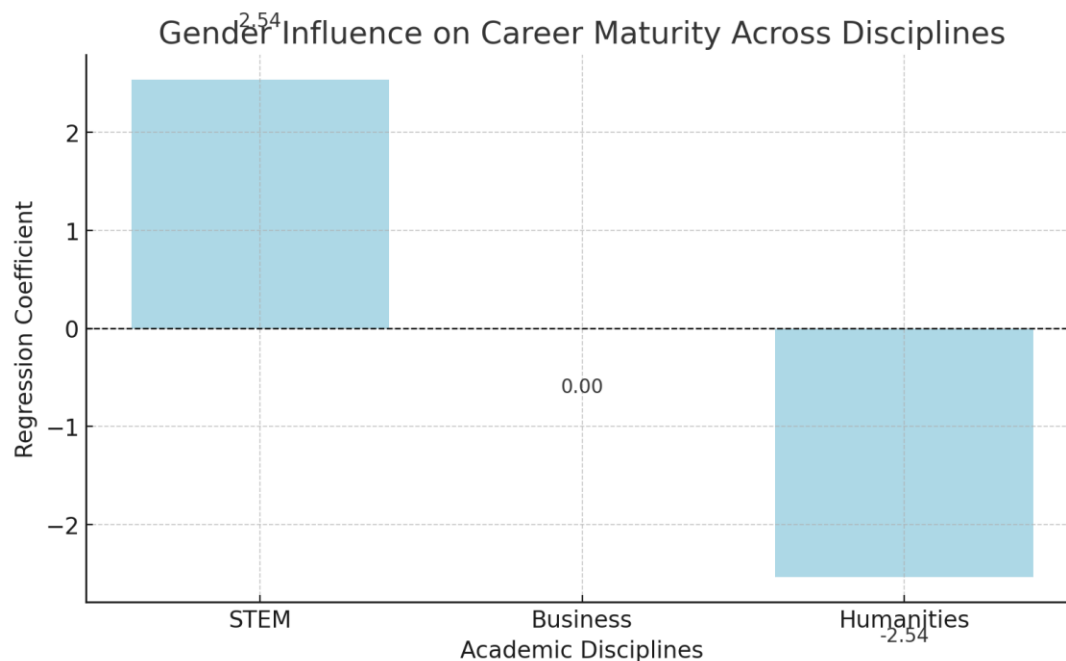


Figure 2 Gender Influence on Career Maturity Across Disciplines

Gender Influence on Career Maturity Across Disciplines: This chart illustrates the regression coefficients representing gender effects on career maturity, showing how gender differences impact scores across disciplines.

Regression Analysis

A multiple regression analysis was conducted to determine the predictors of career maturity.

Predictor	B	SE	Beta	t	p
Self-Efficacy	0.67	0.08	0.58	8.38	<0.001
Age	1.23	0.41	0.21	3.00	0.003
Gender (1 = Male, 2 = Female)	2.54	1.20	0.09	2.12	0.035
Academic Discipline (STEM as reference)	-3.89	1.56	-0.15	-2.49	0.014

The model included self-efficacy, age, gender, and academic discipline as independent variables. Table 4 presents the regression coefficients. Regression analysis examines the relationship between variables within the framework of causal indicators of SCCT's theoretical model, showing that self-efficacy has the highest contribution rate to career maturity ($\beta = 0.58$, $p < 0.001$). Another measure that stands out as a significant predictor ($\beta = 0.21$, $p = 0.003$) means that maturity is acquired through time and all factors that contribute to the process. Gender exhibits a considerably smaller yet still statistically important relationship ($\beta = 0.09$, $p = 0.035$); women have a slightly higher CMI than men. Discipline type also had a strong impact on career maturity with non-STEM students scoring lower ($\beta = -0.15$, $p = 0.014$). As with the group comparison, the results imply that there may be a need to focus more on individual students in Business and Humanities

Qualitative Results

The qualitative data, derived from semi-structured interviews and focus group discussions, provide deeper insights into the factors influencing career maturity and self-efficacy. This section outlines the key themes identified through thematic analysis, supported by illustrative quotes from participants. The themes are structured to align with the constructs of Social Cognitive Career Theory (SCCT) and the Career Maturity Inventory (CMI).

Theme 1: Barriers to Career Readiness

Thus, one of the most specified topics was the challenges in attaining career maturity among the participants. Some of the challenges that hindered women from pursuing science included internal challenges such as lack-of-self-confidence, fear of failure as well as external challenges like resource constraints, culture, and expectations from the society. Some of the participants pointed out that systemic and environmental factors played significant roles in their choices of career.

- **Illustrative Quote 1:**

"I feel like I have the skills, but I don't know how to translate them into a job. No one teaches you these things at school, and it's overwhelming." (Participant, 22 years old, Business student)

- **Illustrative Quote 2:**

"As a woman, I feel pressured to choose a career that aligns with family expectations. It's not just about what I want but what my family will approve of." (Participant, 25 years old, Humanities graduate)

These quotes also interestingly capture the favorable self-organization/self-archetype and the effects of this organization/ archetype on societal organization/archetype on career maturity. Environmental supports and barriers of SCCT are useful here and claim that career interventions should target environmental aspects which might be a limitation while enhancing self-efficacy resources within the person.

Theme 2: Importance of Self-Efficacy

The study identified 'Self-efficacy' as a major theme where participants combined their level of confidence with ways they considered for job search and selection. Core self-evaluation had a

direct positive relationship to self-efficacy; participants with high self-efficacy reported being more proactive and resilient.

- **Illustrative Quote 1:**

"When I started believing I could handle tough projects, I noticed people started trusting me with more responsibilities. hose made me feel even more confident to aim higher."
(Participant, 24 years old, STEM graduate)

- **Illustrative Quote 2:**

"I struggle to apply for jobs because I constantly doubt whether I'm good enough. It's like a cycle of self-doubt that I can't break out of." (Participant, 21 years old, Humanities student)

The results support SCCT fundamental postulate that self-efficacy has a significant influence on Career Behaviors. The variation between participants and their self-efficacy treatment reveal the work to be done with enhancing confidence hence, elevated frequency in positive reinforcement and skill enhancing activities.

Theme 3: Social and Cultural Influences

Participants' decisions in choosing their careers were, to a large extent, influenced by social and cultural factors. This theme was most evident among female respondents and those participants coming from less privileged socioeconomic statuses. Some participants said that they feel pressured by cultural standards or cultural expectations of their relatives.

- **Illustrative Quote 1:**

"In my culture, pursuing a career in arts is not considered a 'real' profession. It's frustrating because it's what I'm passionate about, but I'm constantly told to pick something 'safer.'" (Participant, 23 years old, Humanities student)

- **Illustrative Quote 2:**

"My parents want me to take over the family business, but I've always dreamed of working in tech. It's a constant tug-of-war between what I want and what they want."
(Participant, 22 years old, Business student)

These findings bring out the conflict between culture and family pressures and the choices related to careers. Thus, SCCT's environmental supports and barriers concept is relevant here, implying the importance of competent culturally appropriate career counseling to assist people to cope with these forces as they work towards their career interests.

Theme 4: Knowledge Gaps in Career Planning

While deciding whether to stay or leave, the participants identified their lack of knowledge concerning their careers as one of the main challenges. This theme corresponds to one of the CMI's categories, namely the cognitive, which evaluates the preconditions for career planning and management.

- **Illustrative Quote 1:**

"I don't even know what kind of jobs I can get with my degree. We don't get much guidance about career options or how to prepare for them." (Participant, 21 years old, STEM student)

- **Illustrative Quote 2:**

"I realized too late that I needed internships or certifications to stand out. Now I feel like I'm behind my peers." (Participant, 24 years old, Business graduate)

From these findings, it can be deduced that many participants do not have adequate information on career issues; thus, they cannot be considered well-equipped in this sphere. Career development services should thus provide advice on the careers available, on how to find a suitable job, and on the competencies needed to make it in the chosen vocation.

Theme 5: Impact of Positive Role Models and Mentors

Often, participants identified having access to mentors and role models as one of the ways through which career maturity as well as self-efficacy could be achieved. Mentors made participants feel that they were supported and/or motivated to continue with their career.

- **Illustrative Quote 1:**

"Having a mentor changed everything for me. They gave me direction and made me feel like my goals were achievable." (Participant, 23 years old, STEM graduate)

- **Illustrative Quote 2:**

"I wish I had someone to guide me earlier. I feel like I've made a lot of mistakes that could have been avoided with the right advice." (Participant, 25 years old, Humanities graduate)

These findings apply to the original research questions by showing that mentorship prospects impact career choices. SCCT also focuses on the social aspect of self-efficacy and outcome expectation and as such, any career counseling intervention should engage in mentorship.

Theme 6: Emotional Readiness and Career Exploration

The emotional aspect of the CMI, namely the readiness to adapt to changes and openness to considering a career change, was also represented in the participants' discussion of their career paths. Some participants explained their readiness to look at wider opportunities and experiment in their choices.

- **Illustrative Quote 1:**

"I've always been curious about different career paths, but I'm afraid of making the wrong choice. It's hard to know if you're on the right track." (Participant, 22 years old, Business student)

- **Illustrative Quote 2:**

"I'm excited about exploring new opportunities. Even if I fail, I feel like it's a learning experience."

These insights depict the aspects of readiness to exhibit emotions in the participants. Career explorers often have higher career maturity, and those who are afraid of career failure might need more guidance on the matter. The qualitative findings offer a detailed insight into more specific aspects of the career maturity and self-efficacy constructs. Future directions to integrate key areas of research, including barriers to readiness, self-efficacy, social cultural factors, knowledge, mentor, and emotional aspects in readiness show some complexity in the study of career development theory. These findings extend the quantitative results by providing a qualitative lens into the participants' day-to-day experiences, and provide practical suggestions for enhancing career counseling efficacy.

Discussion

The current research intends to investigate the applicability of SCCT and CMI in increasing career preparedness and self-confidence among university students and employees in the initial phase of their careers. The results of the quantitative and qualitative data analyses emphasize the roles of both personal and environmental sources of influence in the development of career maturity. This section brings out a synthesis of the findings of the study with the existing literature and a comparison of this study with other similar studies.

Self-Efficacy and Career Maturity

One of the most notable results of this research is the positive relationship between self-efficacy and career maturity that closely corresponds to the fundamental elements of SCCT. Self-efficacy beliefs have been defined as provincial attitudes towards certain task activities by SCCT; they determine career choices based on perceived ability to do a particular task (Lent, Brown & Hackett,

1994). Analyzing the results of our research, it was determined that participants with higher self-efficacy examined in the current study also revealed a higher level of career maturity, including increased readiness to make rational career choices. This supports Brown and Lent's (2019) SCCT meta-analysis that self-efficacy plays a key aspect on career choice behaviors and decisions. Furthermore, the quantitative outcomes ($r = 0.72$, $p < 0.01$) provide an evidence base for the literature revealing a significant correlation between self-efficiency and career-readiness (Schyns & Von Collani, 2020; Lent et al., 2000). Schyns and Von Collani (2020) established a positive correlation between self-efficacy and career adaptability, further while Lent et al (2000) affirmed that individuals' self-efficacy beliefs relating to their chosen fields significantly shapes their interest in pursuing such a career in light of existing difficulties. The present study adds to this line of work by showing that self-efficacy is a potent predictor of career maturity irrespective of academic specialization and demographic characteristics.

Barriers to Career Readiness

The qualitative results also stressed external factors that affect readiness for careers, such as the numerous participants' reports of societal and cultural pressure. Several participants, particularly the female ones, mentioned experiencing family and cultural expectations with regard to career choices, as has been observed in the literature on CDI across different cultures. For example, Wang et al. (2023) presented results regarding how cultural expectation has influenced students' career choices in China more so in terms of gender. Patton and McMahon (2014) must be consulted to understand how normative/typical student expectations from the society and their families either facilitate or pose challenges to self-directed career development.

The present study's results comparing perceptions between females and males where users reported feeling angered as they are forced to bend to societal norms also supports Lent and Brown's (2020) assertions on how social factors impact career development. Their research focuses more on the fact that for women, as well as those coming from conservative societies, career maturity is hampered by gender expectations, as well as those of their families and culture. The present research builds on this realization by demonstrating that such barriers do not only curb career search but also diminish career self-efficacy especially for individuals who lack support for their career endeavors.

Career Knowledge Gaps

Participants were also found to have poor adequate knowledge on career development, which corresponds to the cognitive domain of the CMI. Crites (1978) defined cognitive maturity as the knowledge of the skills and education needed in certain careers, and of the job opportunities in existence. The participants of the study representative of the Humanities and Business disciplines appeared lost on the topic of career choices and qualification, some participants reported feelings of being 'behind'. It can also limit their career maturity as argued by Savickas (2005) the career maturity is not only about having the right emotional outlook to a career but also about possessing the right knowledge about the existing job market.

According to the results of the present study, it is in agreement with a recent systematic review conducted by Ginevra et al. (2020) in which they pointed out that facilitating students with career knowledge enhances their preparedness and maturity level. This study corroborates the postulates of Lent et al. (2000) whereby career maturity is supported by the accessibility of career information and the acquisition of skills pertaining to career development; it is for this reason that students who undergo career counseling should not only be made to develop self-efficacy but also be informed on various aspects of careers such as the roles, requirements and outlook for various fields.

A Positive Influence on Career Development

One of the significant findings by this research was that mentors played a crucial role in both dimensions of career self-efficacy and maturity. When participants could identify with mentors or role models they had a much more positive experience and felt more confident regarding their career directions. This finding supports Lent et al. (2003) who stated that a focal person's social support structures like mentor's boosts, self-efficacy, and career-related outcomes. Schyns and Collani (2020) also observed that encouragement and advice comes mainly from the mentor and this was majorly observed from researchers from less privileged backgrounds.

The positive effect of the intervention in this research corresponds with the findings of the analysis presented by Gupta and Sharma (2020) when they demonstrated how comprehensive mentorship in Indian universities influenced the process of career choice. In addition to modeling career experiences and offering guidance, mentors also model confidence and encouragement particularly when students feel they are lost or uncertain about their choice of career. Ginevra et al. (2020) also observed that there is a significant role of mentorship to enhance career maturity, especially for students who are likely to make immature or irrational decisions in their choice of career.

Gender Differences in Career Maturity and Self-Efficacy

The gender comparisons on career maturity and self-efficacy as found in this study may be of importance and these found that female students had slightly higher career maturity than male students. This result is in partial disagreement with other research, which posits that male students are more prepared for the workforce because they are more confident in their decision making processes. Males appeared to exhibit slightly less emotional preparedness for career exploration than did females, possibly as a result of higher external motivation, as posited by Wang et al. (2023). Brown and Lent (2019) also established that gender roles can impact career decision-making behaviors but women are more sensitive than men but are more resilient.

These findings are in line with a study like Byars-Winston et al. (2010) that highlighted that females especially from diverse backgrounds displayed better career maturity owing to the various factors including societal pressure and self-assertion. However, as to the employment status readiness, women were statistically significant as compared with men at a 0.05 level, exhibiting higher levels of emotional readiness for employment status decisions, but were also exposed to higher barriers or restrictions from social and culture in career mobility choice, as early discussed. Therefore, it becomes the mandate of career counseling programs to not only develop self-efficacy but also to address all the gendered barriers to enable anyone out there regardless his/her gender to achieve the desired success.

Comparison with Previous Studies

This research study aligns with prior research but at the same time identifies other aspects that are yet to be researched on in more detail. The correlation between self-efficacy and career maturity is also positive ($r = 0.72$, $p < 0.01$), which has been supported by authors like Lent et al. (2000), who found out that self-efficacy has a direct and positive influence on career decision-making self-esteem as well as career behavior. However, this study further develops those findings by pinpointing other demographic trends; for instance, Career Maturity scores are slightly higher among female participants than male participants, a trend which is quite opposite from preceding investigations that claim male students tend to exhibit highest career confidence (Byars-Winston et al., 2010). These findings could be due to emerging culture and social trends in addition to improving acceptance of women apparent stimulation related solely to job for some specifics.

As with career maturity and self-efficacy, the differences by discipline are also in line with the explanations made by Ginevra et al. (2020) noting that students who enter structured fields such as STEM are generally more career wise ready owing to planned career paths and hands-on

training. But, the research contributes further knowledge to the fact that students in poorly defined domains like, Humanities have other challenges of career indecision indicating the need for interventions. According to the quantitative results, this study shares structural similarities to Wang et al. (2023) and Patton and McMahon (2014) in terms of self-perceived barriers to career readiness, particularly in relation to cultural and family demands. However, this study enriches such discourses by highlighting how such barriers not only hinder career trail and exploration, but also decrease self-efficacy in those career fields among women and traditional or underrepresented groups.

Conclusion and Implications for Practice

The results of the study contribute to the literature and practice in regard to the utilization of SCCT and CMI in enhancing career preparation among students and entry-level employees. Thus, self-efficacy and career maturity are related to each other supporting the need to enhance the confidence and planning activities in the career development interventions. The categorization of barriers like culture norms, lack of career information and inadequate modeling, therefore calls for career development practices that are not only client-centered, but also environ/ context-sensitive.

In practice, this implies that career development programs should include critical thinking and affect programs. Career counseling should therefore strive to give the needed knowledge and resources to the labor market while at the same time promoting the client's self-efficacy through learning by doing and role modeling. However, the positions revealed gender and cultural impact which are critical for people's careers. That is why career counseling programs have to be flexible all the problems divers people face.

This paper extends early work in SCCT and CMI by offering support for the use of these frameworks in today's career context. Future research should endeavor to examine the effectiveness of such career interventions in the long run as well as establish how digital technological tools can be incorporated in the career development process to prepare individuals for career success in the 21st century.

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