

CAPITAL UNIVERSITY OF SCIENCE AND
TECHNOLOGY, ISLAMABAD



**Interplay of Cognitive Psychological
Factors to Burgeon Entrepreneurial
Career Choice Intentions in the Realm
of Glass Ceiling Syndrome**

by

Muhammad Ali Malik

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Entrepreneurial Career Choice Intentions in the Realm of
Glass Ceiling Syndrome**

By

Muhammad Ali Malik

(DMS183001)

**Dr. Dawoud Almohammad, Assistant Professor
Mardin Artuklu University Mardin, Turkiye
(Foreign Evaluator 1)**

**Dr. Kate Davis, Senior Lecturer
Cranfield University, UK
(Foreign Evaluator 2)**

**Dr. Muhammad Ishfaq Khan
(Research Supervisor)**

**Dr. S. M. M. Raza Naqvi
(Head, Department of Management Sciences)**

**Dr. Arshad Hassan
(Dean, Faculty of Management & Social Sciences)**

**DEPARTMENT OF MANAGEMENT SCIENCES
CAPITAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
ISLAMABAD**

2025

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This thesis work is dedicated to my wife, who has supported my long journey of growing in academics, especially the fulfilment of PhD degree. I also dedicate this work to my parents who always instilled in me the confidence and sense of hope to do what I aspired to achieve. Special thanks to my passion and self-belief, which drove me well throughout the journey



CAPITAL UNIVERSITY OF SCIENCE & TECHNOLOGY ISLAMABAD

Expressway, Kahuta Road, Zone-V, Islamabad
Phone: +92-51-111-555-666 Fax: +92-51-4486705
Email: info@cust.edu.pk Website: <https://www.cust.edu.pk>

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This is to certify that the research work presented in the dissertation, entitled “**Interplay of Cognitive Psychological Factors to Burgeon Entrepreneurial Career Choice Intentions in the Realm of Glass Ceiling Syndrome**” was conducted under the supervision of **Dr. Muhammad Ishfaq Khan**. No part of this dissertation has been submitted anywhere else for any other degree. This dissertation is submitted to the **Department of Management Sciences, Capital University of Science and Technology** in partial fulfillment of the requirements for the degree of Doctor in Philosophy in the field of **Management Sciences**. The open defence of the dissertation was conducted on **February 26, 2025**.

Student Name : Muhammad Ali Malik
(DMS183001)

The Examination Committee unanimously agrees to award PhD degree in the mentioned field.

Examination Committee :

- (a) External Examiner 1: Dr. Khurram Shahzad
Professor
Riphah Int. University, Islamabad
- (b) External Examiner 2: Dr. Kausar Fiaz Khawaja
Assistant Professor
IIU, Islamabad
- (c) Internal Examiner : Dr. Robina Yasmin
Associate Professor
CUST, Islamabad

Supervisor Name : Dr. Muhammad Ishfaq Khan
Associate Professor
CUST, Islamabad

Name of HoD : Dr. S. M. M. Raza Naqvi
Professor
CUST, Islamabad

Name of Dean : Dr. Arshad Hassan
Professor
CUST, Islamabad

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(Muhammad Ali Malik)

Dated: **26** February, 2025

Registration No : DMS183001

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(Muhammad Ali Malik)

Dated: 26 February, 2025

Registration No : DMS183001

List of Publications

It is certified that following publication(s) have been made out of the research work that has been carried out for this dissertation:-

1. Malik, M. A, & Khan, I.K. (2024). Burgeoning Entrepreneurial Career Choice Intentions in the Realm of Glass Ceiling Syndrome – the Power of Employee Work Volition. *Journal of Southwest Jiaotong University*, 59(2), 225-240.

(Muhammad Ali Malik)

Registration No: DMS183001

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(Muhammad Ali Malik)

Abstract

The current study attempts to examine when and why female employees may opt for entrepreneurship as a choice at some stage of their professional career due to unavoidable pressures of the glass ceiling and how far cognitive psychological factors may play a positive role in decision making. Using the theoretical framework of social cognitive career theory, this study attempts to investigate the impact of certain cognitive psychological factors or attitudes including employee work volition, career adaptability and career anchor (demonstrating self-beliefs and perception) on entrepreneurial career choice intentions (a behavioural component of attitude). It also investigates the mediation of psychological empowerment and entrepreneurial self-efficacy (an affective component of attitude) and the moderation effect of glass ceiling syndrome (proximal environmental influence i.e.; support or barrier). In this study, the data has been collected from 450 female employees working in private services sector organizations in Pakistan. The data was collected in three-time lags and was then analyzed using PLS-SEM. The study reveals a positive association between all predicting variables with entrepreneurial career choice intentions, less career adaptability which had insignificant impact. Additionally, the study determines that both mediating mechanisms positively mediate the relationship between predicting variables and entrepreneurial career choice intentions. This underlines the specific state of psychological processes of female employees working in various organizations. However, no effects of moderation of glass ceiling syndrome on the relationship between psychological empowerment, entrepreneurial self-efficacy and entrepreneurial career choice intentions were observed. Overall, the results of the study bring about positive insights into the unique relationship between various cognitive psychological factors on their choice goals/ actions by females to opt for entrepreneurship at some stage of their career, especially in the realm of glass ceiling syndrome.

Keywords: Employee Work Volition, Career Adaptability, Career Anchor, Psychological Empowerment, Entrepreneurial Self-Efficacy, Glass Ceiling Syndrome, Entrepreneurial Career Choice Intentions, Social Cognitive Career Theory.

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Abbreviations

CAd	Career Adaptability
CAn	Career Anchor
ECCI	Entrepreneurial Career Choice Intentions
ESE	Entrepreneurial Self-Efficacy
EWV	Employee Work Volition
GCS	Glass Ceiling Syndrome
Kurt	Kurtosis
PE	Psychological Empowerment
SCCT	Social Cognitive Career Theory
Skew	Skewness

Chapter 1

Introduction

The initial chapter provides an overview of the introduction, which encompasses, Section 1.1: Background information on the study, Section 1.2: Identification of research gaps in theory and context, Section 1.3: A clear problem statement, Section 1.4: Research questions to guide the study, Section 1.5: Specific research objectives, Section 1.6: An explanation of the study's significance, and Section 1.7: A discussion of supporting theories that underpin the research.

1.1 Background of the Study

Career affects happiness in human life ([Akhsania, Basuki, Sugiharto, & Japar, 2021](#)), and its development improves overall well-being and life satisfaction (Seligman, 2024). Making a career choice is crucial in everybody's life, as it has a lasting impact on other facets of life. An accurate career selection, therefore; becomes a complex phenomenon in the life of any human being. Unemployment remains a major concern across the globe to to-date.

Job sectors fail to provide full-time and equal job opportunities to the youth, especially aspiring women in developing countries like Pakistan. In this context, entrepreneurial career choice intention is a potent option. However, it is quite an intricate affair too, as it involves important facets of decision-making, judgment, and careful evaluation of consequences. Career development is essential in human life due to various reasons.

First, it enhances employability and career development opportunities ([Hart, 2024](#)). It boosts the self-esteem of an individual to achieve career goals which ultimately enhances his/ her self-worth. Second, financial stability is improved due to career advancements often leading to better compensation and benefits. Third, it enhances skills and knowledge through continuous learning and development which ultimately expands expertise and adaptability to higher and challenging positions. Fourth, it increases job satisfaction, aligning the work with passions and strengths leading to greater fulfillment. Fifth, it supports personal growth by overcoming challenges and achieving success, thereby; fostering resilience and emotional intelligence. Sixth, it expands networking opportunities and builds professional relationships to open doors to new opportunities. Seventh, effective career management allows for balance between professional and personal life. Finally, it fosters a sense of purpose for meaningful work and contributes to a sense of direction and achievement.

After understanding the importance and complexity of career choice and development, the next step is to know, how career decisions or choices are made. Persons possess varying inclinations or preferences for different types of jobs and firms' attributes. Career decision-making is generally done at the end of adolescence and early adulthood period and people can perform it successfully if they have insights into their abilities, vocational interests, and personal characteristics ([Akhsania et al., 2021](#)). [James \(2000\)](#) has related the home environment as a central influencer for making career decisions. Other factors include culture, financial constraints, media, prospective income, social acceptability, recognition, life circumstances, and work satisfaction ([Kazi & Akhlaq, 2017](#)). The diverse choice elaborates on the differences in each person while seeking certain occupation choices ([Roach & Sauermann, 2015](#)), and options of retention ([Carnahan, Kryscynski, & Olson, 2017](#)).

As regards to professional growth of women, gender inequality is undoubtedly a long-standing and ubiquitous shape of disparity prevalent in the world. It negates the worth of women, undervalues their work, and places them in unequal positions as compared to men ([Olawajun & Fernando, 2020](#)). This phenomenon is more pronounced in developing countries, wherein women possess fewer likely chances

of employment contracts, lawful rights, and social safeguards. Women all over the world work in the lowest-paid jobs ([Hannum, Kong, & Zhang, 2009](#)). Out of a total of 135 countries, Pakistani women were ranked 134 in the gender equality index (p.284 [Hausmann, Tyson, Bekhouche, & Zahidi, 2012](#)) and as per the global gender gap report 2021, it is ranked 153 out of 156 countries (p. 10 [Bag & Barman, 2022](#)).

Gender inequality in Pakistan has several career-related effects. Women have restricted access to education and career opportunities. There exists gender bias in employment, promotion, and pay scale. In addition, there are limited career choices for women, with a preference for traditional fields and if they want to opt for their venture, it is taken negatively. There is social and cultural pressure on women to prioritize family over career. Considering their elevation to career growth, there is limited representation of women in leadership and decision-making positions. Stereotyping and bias in the workplace have been affecting the career development of females both in public as well as private organizations. The government policies to support working women are inadequate as these do not address their core issues. There is restrictive mobility and a lack of access to resources and networks to start own business. There exists gender-based violence and harassment.

There are multiple factors specific to Pakistani culture which may cause dissatisfaction or frustration to the females of the society at various stages of their professional life. Some women report dissatisfaction concerning cultural norms and practices that hinder their entrepreneurial potential, whereas; others view these developments offer an opportunity ([Roomi, Rehman, & Henry, 2018](#)). Due to masculine culture in Pakistan, people and organizations are stereotypical; hence they are not generally positive towards women ([Saleem, Rafiq, & Yusaf, 2017](#)).

In the Asian culture, women face challenges to rise to leadership positions and problem is further accentuated to affirm and uphold influence once they occupy top management positions. Past studies reflect that in developing countries, women possess fewer senior positions in organizations, and are unjustifiably affected by disorganized conventional and religious laws ([Bertrand, Kamenica, & Pan, 2015](#)).

As regards entrepreneurship as a career choice, the approaches have been changing fast since the initiation of the very concept by Richard Cantillon in 1755 for the first time (Gubik, 2021). Venture creation or entrepreneurial career choice intentions have been widely considered as a deliberate and planned behavior (Krueger & Carsrud, 1993; Krueger Jr, 2000), and resultantly entrepreneurial intentions have wide-ranging considerations in the literature of entrepreneurship (Bird, 1988; Kolvereid, 1996; Krueger & Norris, 1993; Krueger, Reilly, & Carsrud, 2000). Many scholars have explored why entrepreneurial behaviors and activities disclose dissimilar ways in various persons (Campbell, Ganco, Franco, & Agarwal, 2012; Car-nahan, Agarwal, & Campbell, 2012; Lyons & Zhang, 2018).

Women continue to be disproportionately underrepresented in new venture creation (Rocha & Van Praag, 2020). Besides the fact that an increase in the policy and scholarly interest has raised the comprehension and furtherance of the notion or idea of entrepreneurial career choice intentions, women endure to be marginal in new venture creation in countries high in gender equality (Tonoyan, Strohmeier, & Jennings, 2020). The above explanations not only stand true regarding female disregard in entrepreneurship but also pertain to male-subjugated posts, such as chief executive officer or top management positions and other senior roles of management (Cook & Glass, 2014; Dezső, Ross, & Uribe, 2016; Kogut, Colomer, & Belinky, 2014).

An individual's attitude greatly influences their career decisions and professional behaviour, serving as a key motivator in shaping their career path in entrepreneurship (Othman & Ishak, 2009). An individual's temperament including attitude towards risk-taking and inclination for autonomy outlines the choice for a career in entrepreneurship (Halaby, 2003). Both men and women nurture distinctive career choices or predilections and are forced to pull out of certain occupations, professions, and employment due to professed mismatch (Kossek, Su, & Wu, 2017). In reality, irrespective of gender, men and women tend to prefer explicit careers and job attributes in their life cycles (Barbulescu & Bidwell, 2013).

When making career decisions under difficult circumstances, the ability and aptness of the person matter a lot. In this context, work volition is found instrumental in the research, which is the apparent capacity to decide choices for occupation

besides constrictions. (Broonen, 2010) terms that, “volition is the process that determines the transition from intention to action”. Work volition has demonstrated a primary role in holding together the commitment of an individual to an aspiring career object (Nyock Ilouga, Nyock Mouloungni, & Sahut, 2014). Indeed, merely strong motivation to perform necessary work is not enough to realize the intentions. Lack of characteristics such as willingness and volition, hence become a major hurdle in achieving the perceived goals.

During the career span, career adaptability can be astoundingly useful, as it provides requisite flexibility, boosts resilience to overcome adversity, and helps employees develop grit, a positive attitude. It is one’s ability and ability to navigate, plan, and cope with changing plans of career and responsibilities at work, especially in the aftermath of untoward or unexpected events (Rottinghaus, Day, & Borgen, 2005). It may help them to explore various avenues for professional growth and foster open-mindedness to change and adopt. The concept was developed to understand how adults can adapt and respond to the evolving demands and transformations in the workplace (Kidd, 1984; Super & Knasel, 1981). Savickas (1997) further developed the concept and described it as a framework for understanding how individuals navigate career transitions and adapt to new professional roles.

Considering people’s subjective psychological attributes that inspire their career choices and judgments, career anchor plays a major role. It paves the way for self-concept and motivation not to give in, even if enforced to adopt tough choices (Schein et al., 1990). Career anchors possess a blend of a person’s proficiencies, drives, and values relating to professional work choices (Schein, 1996). A career anchor is built over a few years and later becomes a stabilizing force in the total personality that guides and compels future choices for a career. It is perceived that most of us are unaware of our career anchors until we make choices concerning career, family, or growth. It is crucial to be conscious of these so that wise choices are made in the hour of need.

In the current study, Social Cognitive Career Theory (SCCT) was used to assess the entrepreneurial intentions of employees. In parallel, other theories could include the Theory of Planned Behavior (TPB), the Entrepreneurial Event Model (EVM), and the Self-Determination Theory (SDT). The reasons, why SCCT was

used over TPB is due to multiple strengths, including: (1) SCCT offers a comprehensive framework incorporating cognitive, emotional and environmental factors, (2) It accounts for self-efficacy and outcome expectations, (3) It has focus on career development emphasising career exploration, decision making, (4) It considers the impact of learning experiences. The limitations of TPB include: (1) It has narrow focus on behavioral intentions only and may not capture complex cognitive and emotional processes, (2) It lacks emphasis on environmental factors and rather only focuses on individual factors.

In 1994, Social Cognitive Career Theory (SCCT) was initiated by Lent, Brown, and Hackett and outlined how 'career interests' emerge and grow through three interrelated dimensions of career development and resultantly how 'choices of career' are made for the attainment of 'career successes. Hence theory incorporates interlinked variables namely "self-efficacy beliefs, outcome expectations and goals". Self-efficacy affects one's belief or capability in attaining a determined goal and accomplishing a certain level of performance. Coined by (Bandura et al., 1986) in Social Cognitive Theory, the concept was adapted and renamed 'entrepreneurial self-efficacy' when researchers applied it to the context of entrepreneurship (De Noble, Jung, & Ehrlich, 1999; Uygun & Kasimoglu, 2013; Ayodele, 2013; Shinnar, Hsu, & Powell, 2014). Research has shown that having high entrepreneurial self-efficacy leads to a greater likelihood of choosing a career in entrepreneurship (Darmanto & Yuliari, 2018).

To cultivate entrepreneurial behavior, the function of entrepreneurial self-efficacy is of paramount importance, which eventually enhances 'psychological empowerment'. Psychological empowerment is closely connected to personal development. It is displayed in four cognitions and reflects an individual's alignment to the work role including "meaning, competence, self-determination and impact" (Spreitzer, De Janasz, & Quinn, 1999; Thomas & Velthouse, 1990). Empowerment is essential to foster entrepreneurial behavior, as it helps remove both visible and hidden barriers that can hinder its development and growth (Bratnicki, Marzec, Zabierowski, & Kulikowska-Mrozek, 2007).

Using the Social Cognitive Career Theory lens, this research intends to explore the integrated role of selected cognitive factors at the individual (female) level

that serves to modulate performance and behavior concerning entrepreneurial self-efficacy, and psychological empowerment ultimately leading to entrepreneurial career choice intentions in the realm of glass ceiling syndrome. It will be useful to assess whether these cognitive factors help in logical reasoning, problem-solving, and making sound judgments or not. In the process assess, how far it energizes entrepreneurial self-efficacy and anticipated consequent behaviour of entrepreneurial career choice intentions. It is important to study the phenomenon, as entrepreneurial career choice intentions may emerge as an attractive alternative option to the wage female employees, who face inequality and hurdles to rise to senior positions of a career in the private organizations of Pakistan.

1.2 Research Gaps

Intention models that evolve draw on insights from multiple disciplines, including economics, sociology, and psychology, to inform their frameworks (Matthews & Moser, 1996; Van Auken, Fry, & Stephens, 2006; Barbosa, Gerhardt, & Kickul, 2007; Fayolle & Liñán, 2014). Social Cognitive Career Theory possesses a vigorous ability to forecast many entrepreneurial outcomes better than previous theories of psychology. Hence, many scholars have made calls to apply the given theory in the context of entrepreneurship (Carsrud, Brännback, Elfving, & Krueger, 2009; Linan & Fayolle, 2015; Liguori, Winkler, Vanevenhoven, Winkel, & James, 2020). Moreover, numerous researchers (Vanevenhoven & Liguori, 2013; Liguori et al., 2020; Lanero, Vázquez, & Aza, 2016; Liguori, Bendickson, Solomon, & McDowell, 2019; Liguori et al., 2019) have responded to the call, but their efforts have primarily concentrated on the more immediate or proximal aspects of the theory, leaving the more distant and unexplored facets unaddressed” (Adebusuyi, Adebusuyi, & Kolade, 2022).

Overall, Social Cognitive Career Theory suggests the interaction of both proximal and distal factors which can help individuals in shaping career development and decision-making process. The proximal aspects of the theory encompass the factors which have a direct influence on the development of a career and the process

of decision-making of an individual, including their beliefs about their abilities, expectations about outcomes, personal objectives, and the supportive or obstructive elements in their environment. The distal parts of theory refer to broader cultural or societal factors that may indirectly impact career development such as gender, social norms, cultural stereotypes, values, and political and economic factors. ***Hence, the first gap of extant research is to explore multi-dimensional and multi-directional interaction and relationships of personal values and proximal environmental inputs on the behavior of employees in the cultural settings of Pakistan. .***

Recent literature has vastly studied the direct consequence of self-efficacy on entrepreneurial intentions as a career ([Saraih et al., 2018](#); [Pihie & Bagheri, 2011](#); [Rachmawan, Lizar, & Mangundjaya, 2015](#); [Rosique-Blasco, Madrid-Guijarro, & García-Pérez-de Lema, 2018](#); [Ahmed, Islam, & Usman, 2021](#)). In past research, entrepreneurial self-efficacy has been considered as a mediating factor to check the relationship ([Oyugi, 2015](#); [Darmanto & Yuliari, 2018](#); [Ciuchta & Finch, 2019](#)). It has been stressed that more complex models should also take into account the dynamic relationships between variables, including how they interact, moderate, and mediate each other's effects ([Fitzsimmons & Douglas, 2011](#); [BarNir, Watson, & Hutchins, 2011](#); [Pollack, Vanepps, & Hayes, 2012](#)). [Linan and Fayolle \(2015\)](#) argue that the intricate web of motivational factors that precede the choice to commence a venture warrants further exploration to achieve a deeper grasp of the cognitive activities that drive entrepreneurial intention.

[Saraih et al. \(2018\)](#), highlight the need to develop strategies that boost self-efficacy, thereby increasing entrepreneurial intentions and motivation to initiate a business. Most recently, [Frese and Gielnik \(2014\)](#) carried out a systematic review and advocated that future research to explore complex relationships between motivational, cognitive and environmental factors influencing entrepreneurial behavior. Similarly, in another study, a need has been emphasized to investigate the complex interplay between motivation and cognitive factors influencing entrepreneurial behavior at multiple levels to include individual, team and organization ([Stephan, Rauch, & Hatak, 2023](#)).

The Social Cognitive Career Theory provides a comprehensive context for integrating the dynamic and systematic interactions of individual, contextual, and motivational factors, which have been previously studied in isolation, into a cohesive and nuanced understanding of career development; to shape entrepreneurial intentions for further making a career choice (Segal, Borgia, & Schoenfeld, 2002). Moreover, it provides a framework for understanding the transition to entrepreneurship as a career development process, which involves a wide range of factors that influence and are influenced by this transition, including various antecedents and outcomes that shape the entrepreneurial journey (Pérez-López, González-López, & Rodríguez-Ariza, 2019).

Overall, there is limited research specifically focusing on female employees of developing countries facing unique challenges and barriers to start their venture. Women face societal expectations and gender roles that limit their ability to pursue entrepreneurial ventures (Khan, Salamzadeh, Shah, & Hussain, 2021). The present study is important, as the outcome of the relationship is expected to be useful for the understanding of female employees of developing countries, who may opt to choose entrepreneurship as a potent choice at a certain stage of their careers. *The second gap of the extant research is to evaluate the relationship (to what extent) effects of cognitive psychological factors (employee work volition, career adaptability, and career anchor) on Entrepreneurial career choice intentions, through the mediation of Entrepreneurial Self –Efficacy and Psychological Empowerment. The interaction of selected constructs has not been studied before in the overall framework of Social Cognitive Career Theory.*

The most significant hindrance with regards to the growth of female employees is the level of approval of their rise by society termed as ‘culture’. Evidence records that entrepreneurship is termed as “male-typed” employment (Sullivan & Meek, 2012). Generally speaking, entrepreneurs are typically interpreted in “masculine expressions” and “feminine virtues” are considered “antithetical” or adverse to an entrepreneur (Ahl, 2006). Available research in the Pakistani context is not enough, focused, and diverse and much more is to be explored keeping in view the peculiarities of the country’s culture, societal norms, level of empowerment, and a

limited number of opportunities for women. [Shakir and Siddiqui \(2014\)](#), has recommended more research to investigate other factors impeding women's progress in Pakistan. [Liguori et al. \(2019\)](#) suggest that studies in the future may also consider input from other cultural, regional, or educational perspectives (for example, applying the Social Cognitive Career Theory model to diverse regions worldwide (such as Asia, Europe, South America, and Africa) to enhance the model's global applicability and broaden its scope. In a recent study which investigated challenges and opportunities by females for business venturing in the Middle East and North Africa (MENA) region, it has been emphasized to address the cultural barriers to promote the women entrepreneurship in various regions ([Al-Dajani, 2022](#)). *Keeping given leads in view; the third gap of extant research is to assess the challenges, opportunities and considerations, which may contribute cultivation of the spirit of entrepreneurship amongst aspiring Pakistani female professionals during the process of career development.*

Amongst the most important issues identified, modern research considers the glass ceiling as a hot topic in business management today. In the past, considerable research has been conducted on the multifarious dimensions of the glass ceiling including attitudinal, behavioural, structural or organizational, and domestic constraints negatively affecting female careers in various professions ([Bazazo, Nasseef, Mukattesh, Kastero, & Al-Hallaq, 2017](#)). Numerous recent studies have talked about the challenges, barriers, breaking the syndrome, its effects/ consequences, and strategies to cope ([Babic & Hansez, 2021](#); [Salahuddin, Mahmood, & Ahmad, 2021](#); [Imtiaz, Shaikh, & Ain, 2018](#)). It is opined that more research is still required in terms of people of different colours facing difficulty in gaining access to higher management positions.

In the Pakistani context, there exists scarce literature on glass ceiling syndrome and many studies have only given basic insight into the effect of the factor of glass ceiling on female employees. [Shafiq \(2014\)](#), has reflected that Pakistani women hold only 5% of the positions of corporate leadership which is very low indeed and needs to be investigated in detail. Glass ceiling has been mostly used as predictor to know its outcome on career advancement of women in Pakistan

(Khan et al., 2021), job satisfaction of women in Pakistan (Rawas & Jantan, 2023). In their research model, Khalid and Sekiguchi (2019) focused on the mediation effect of the glass ceiling between personality traits of female employees leading to subjective career success. The past research on the mediation effect of the glass ceiling syndrome is negligible. *In the above backdrop, the fourth gap of extant research is to investigate the moderation effects of Glass Ceiling Syndrome (as a proximal environment influencer) on female employees of Pakistan, with special emphasis on how and to what extent the Entrepreneurial career choice intentions of these female employees shape-up in the presence of phenomenon.*

A study by Sharif (2015) has reflected that the glass ceiling factor was the main reason for some female legal professionals to quit and start their own ventures. He suggested that future studies should find out the likely prevalence of the hurdle of the glass ceiling phenomenon in more professions to get a better grasp of its scope and impact across different fields. Recent research calls for an investigation of the glass ceiling in terms of ethnicity. It is advocated to conduct further research on the phenomenon of gender inequality existing in specific economic sectors, such as the tourism sector, which have remained unexplored (Martínez-Fierro & Lechuga Sancho, 2021). In addition, further research is emphasized to investigate the glass ceiling phenomenon in specific industries, such as technology and engineering, where women are underrepresented (Kumar & Chandra, 2022). In the current study. Therefore, *the fifth gap of the extant research is to weigh how far the presence of Glass Ceiling Syndrome could be the reason female professionals of service sector private organizations of Pakistan may opt to quit and adopt Entrepreneurship as an alternative Career Choice and assess the proximal environmental influencer contributes as strength/ opportunity or threat.*

1.3 Problem Statement

For female professionals across the globe, gender discrimination is the oldest and unescapable shape of inequality. In Pakistan, it is perceived that certain female

professionals get distressed on the account of failure to attain the required career trajectory, promotion, or status. They face simultaneous and contradictory feelings of attraction and repulsion towards further career pursuits. They are in a turbulent situation to either quit present career or opt alternative career path, such as switching organization or making entrepreneurship a career choice. The scarce research in Asian and Pakistani contexts warrants exploring the insights regarding particular economic sectors, cultures, and societal norms in detail. In addition, it is important to find peculiarities, predispositions and behavioral determinants of Pakistani females that may help them to opt entrepreneurship at certain stage of career.

Cultural and domestic constraints accentuate the problems for women, who being part of a masculine society are generally considered incapable of opting entrepreneurship as another career option. The idea of an alternative career choice as an entrepreneur seems to be potent for certain employees, perceived to have behavioral capability due to strong personal determinants or dispositions. However, either they are not aware of these strengths or they are not sure, whether it will work or not. The World Economic Forum's Global Gender Gap Report 2024 reveals that Pakistan stands 145 out of 146 countries in gender equality ([Pal, Piaget, Zahidi, & Baller, 2024](#)). Earlier, this ranking was 153 out of 156 countries in 2021 ([Bag & Barman, 2022](#)).

Using the contextual background of SCCT, numerous researchers have emphasized building intricate models of interaction, mediation, and moderation to ponder the impact on entrepreneurial career choice intentions. This research proposes the role of selected cognitive psychological attributes or predispositions which may play a significant role in cultivating entrepreneurial behavior or choice action, especially in the realm of glass ceiling syndrome, taken as moderator. The findings of this study are believed to offer an in-depth insight into the management of organizations and professional women striving to rise in their careers. The study is expected to assist in changing the perception of professional females too, whereby they may feel confident and hopeful to ensure professional growth and stability through crafting new ventures.

1.4 Research Questions

The present study plans to seek answers to the following questions based on problem statement: -

Question 1:

What is the influence of Employee Work Volition, Career Adaptability and Career Anchor on Entrepreneurial Self-Efficacy and Psychological Empowerment of female employees?

Question 2:

What is the influence of Employee Work Volition, Career Adaptability and Career Anchor on Entrepreneurial Career Choice Intentions of female employees?

Question 3:

What is the influence of Entrepreneurial Self-Efficacy and Psychological Empowerment on Entrepreneurial Career Choice Intentions of female employees?

Question 4:

Does Entrepreneurial Self-Efficacy and Psychological Empowerment mediate the relationship between Employee Work Volition, Career Adaptability, Career Anchor and Entrepreneurial Career Choice Intentions of female employees?

Question 5:

Does Glass Ceiling Syndrome moderate the relationship between Entrepreneurial Self-Efficacy, Psychological Empowerment and Entrepreneurial Career Choice Intentions of female employees?

1.5 Research Objectives

The study's specific objectives are outlined as follows: -

- To explore the impact of selective cognitive psychological factors (Employee Work Volition, Career Adaptability and Career Anchor) on Entrepreneurial Self-Efficacy and Psychological Empowerment of female employees.

- To investigate the influence of Employee Work Volition, Career Adaptability and Career Anchor on Entrepreneurial Career Choice Intentions of female employees.
- To check the effect of Entrepreneurial Self-Efficacy and Psychological Empowerment on Entrepreneurial Career Choice Intentions of female employees.
- To investigate the mediation effects of Entrepreneurial Self-Efficacy and Psychological Empowerment between Employee Work Volition, Career Adaptability, Career Anchor and Entrepreneurial Career Choice Intentions of female employees.
- To examine the moderating effects of Glass Ceiling Syndrome on the relationship between Entrepreneurial Self-Efficacy, Psychological Empowerment and Entrepreneurial Career Choice Intentions of female employees.

1.6 Significance of the Study

This research is significant for many key reasons, both theoretical and practical. These are: -

1.6.1 Theoretical Significance

Firstly, the current research offers interaction of more intricate models of interaction, moderation, and mediation concerning entrepreneurial intentions as a career, as emphasized by past researchers ([Fitzsimmons & Douglas, 2011](#); [BarNir et al., 2011](#); [Pollack et al., 2012](#)). It attempts to investigate (to what extent) the relationship of personal dispositions or cognitive psychological attributes with entrepreneurial career choice intentions, using entrepreneurial self-efficacy and psychological empowerment as mediating mechanisms and check the moderation effect of glass ceiling syndrome. The past research mostly studied the direct influence of self-efficacy on entrepreneurial intentions ([Sarasvathy, Dew, Velamuri, & Venkataraman, 2010](#); [Pihie & Bagheri, 2011](#); [Rachmawan et al., 2015](#); [Ahmed](#)

et al., 2021; Blasco, Nagy, & Hernández, 2018) and self-efficacy is used as mediator (Oyugi, 2015; Darmanto & Yuliari, 2018; Ciuchta & Finch, 2019). Hence, in line with the suggestion of (Linan & Fayolle, 2015), more complex configurations have been extended to gain an understanding of the mental activities and decision-making undercurrents that lead to the choice of starting a new venture.

Secondly, in the Pakistani context, there exists scarce literature on the glass ceiling syndrome, and it has offered only basic insight into working women. The current research extends a contribution by obtaining a real perception of the underrepresentation of female employees working in service sector private organizations of Pakistan, arising due to glass ceiling syndrome. Shafiq (2014) has reflected that Pakistani women hold only 5% of positions of corporate leadership, which needs investigation in detail. Sharma and Kaur (2019) has recommended future research on determining the magnitude of the glass ceiling in other professions besides the legal profession.

Thirdly, this study offers an integrated model to understand how alternate career choices of entrepreneurship may emerge as an option for certain careers of female employees and helps us to understand the career development process in a challenging environment. The Social Cognitive Career Theory provides a vigorous context for understanding how personal, environmental, and motivational factors interact and influence an individual's decision to follow the path of entrepreneurship as a career (Segal et al., 2002). Hence, SCCT affects the interests, choices and performance of persons regarding their careers (Wöhrmann, Deller, & Wang, 2014).

Fourth, the professional development of Pakistani females is one of the major concerns that needs the attention of researchers to contribute and support. Generally, available research in the Pakistani context is scarce, and much more is needed to be done, especially keeping in view the peculiarities of its culture, societal norms, level of empowerment, and opportunities for women. Liguori et al. (2020) have recommended that research in future may expand the scope of the model of the Social Cognitive Career Theory by exploring additional contexts and backgrounds of other regions, education, and cultures (such as Africa, Asia, Europe and South

America), thereby enhancing the model's generalizability and applicability across diverse settings. Generally, available research in the Pakistani context is scarce, and much more is needed to be done, especially keeping in view the peculiarities of its culture, societal norms, level of empowerment, and opportunities for women. This research aims to add meaning to held research work by advancing our understanding of the complex factors influencing career choices and entrepreneurial intentions.

Finally, it is perceived that while choosing entrepreneurship as an alternative career choice at a certain stage of the career of professional women, the glass ceiling has a considerable negative impact. Past research has investigated multifarious dimensions, including attitudinal, behavioral, structural/organizational, and domestic constraints (Bazazo et al., 2017). In addition, recent studies have considered challenges, barriers, breaking the syndrome, its effects/ consequences, and strategies to cope (Babic & Hansez, 2021; Salahuddin et al., 2021; Imtiaz et al., 2018; Bian & Bhatia, 2020). However, moderated mediation effects of the glass ceiling leading to incremental behavior of female employees toward entrepreneurial career choice intentions have not been studied. Hence, this research has the purpose to evaluate the moderation effects of glass ceiling syndrome in the overall theoretical settings of Social Cognitive Career Theory, to ascertain whether it is a strength/ opportunity or threat.

1.6.2 Practical Significance

It is important to study the phenomenon, as entrepreneurial career choice intentions may emerge as an attractive alternative option to the wage female and minority employees, who struggle to rise in the private organizations of Pakistan. It will also contribute to their professional development and occupational promotion in a befitting manner. Further, it will encourage a masculine society like Pakistan to permit women and minorities to participate and contribute to the economic uplift, which is a major source of concern for any developing country. For government and academic institutions, the outcome of the study is expected

to produce worthwhile conclusions and recommendations to positively uplift the role of women and minorities in leading policies, initiatives, or programs.

1.7 Supporting Theory

The Social Cognitive Career Theory is founded on the principles of Bandura's Social Cognitive Theory (SCT) (1986, 1997, 2001) and incorporates the Self-Efficacy framework established by (Lent, Brown, & Hackett, 1994). Social Cognitive Career Theory helps to explain how attitudes/ cognitive factors, contextual factors, background environment influence, and motivational processes interact and contribute towards experiential learning, reinforcements, and self-efficacy, ultimately leading to entrepreneurial intent/ career choice or action of the individual. The current study incorporates cognitive psychological factors of EWV, CAd and CAN as personal determinants/ predispositions or attributes, whereas ESE and PE are the potential outcome expectations (personal, material or social) leading to ECCI (choice goals, behavior/action).

In the past research on career interest, Social Cognitive Career Theory has the most unique place due to acceptance and validation models. It offers a powerful device for predicting the interests and goals of a person for choosing entrepreneurship as a career choice. Individual's career choices depend upon their personality traits and how he perceives certain jobs. People with high intellect generally fail to do business and hence, cannot guarantee one's success (Muchtar & Qamariah, 2018). As per (Lent, Brown, & Hackett, 2000), the career development process is influenced by personality, environment, and interrelated factors, which may change over time. Additionally, higher self-efficacy in entrepreneurship has a pronounced function in becoming an entrepreneur. Social Cognitive Career Theory can thus; extend a very comprehensive framework for career choice, especially for those employees endeavoring to enter or switch to a potent career, and can largely address the phenomenon of unemployment faced by developing countries.

By integrating these unique aspects, SCCT postulates a wide-ranging framework for grasping the concept of career choice and development, emphasizing the dynamic interaction between personal and contextual influences. Social Cognitive

Career Theory (SCCT) is hence unique from the perspective of career choice and career development in several ways: (1) SCCT focuses on the cognitive processes that underlie career choices and development, such as self-efficacy, outcome expectations, and goal-setting, (2) SCCT considers both personal (e.g., interests, abilities) and environmental (e.g., social support, barriers) factors that effects career choices and career development, (3) SCCT proposes that career choices and development are influenced by, and also influence personal and environmental factors, (4) SCCT stresses the significance of self-efficacy in career choices and development, (5) SCCT views career development as a lifelong learning process, where individuals continually acquire new skills and knowledge, (6) SCCT considers the impact of contextual factors like culture, socioeconomic status, and gender on career choices and development, (7) SCCT views career development as a vibrant and iterative process, where individuals continuously refine their career goals and choices, (8) SCCT considers the interplay between career and personal life, acknowledging that career choices and development affect overall well-being.

There are several significant contributions made by Social Cognitive Career Theory (SCCT) to the research on career choice and development of female employees. It presents a gender-sensitive perspective and acknowledges gender differences in career development by highlighting the importance of addressing gender-specific barriers and biases. SCCT research has shown that self-efficacy has a fundamental function in the career aspirations and choices of female employees, emphasizing the need to enhance self-efficacy through support and opportunities. SCCT has helped researchers understand how female employees' career interests and goals are shaped by personal and environmental factors, leading to more effective career counseling and interventions.

Further, SCCT research has explored how gender roles and stereotypes influence female employees' career choices and development, highlighting the need to address and challenge these biases. It also emphasizes the significance of mentorship, support, and networking in facilitating female employees' career advancement and development. SCCT research has demonstrated the interplay between career development and overall well-being in female employees, underscoring the importance of holistic support. Talking about the contextual considerations, SCCT has

considered the impact of contextual factors like organizational culture, family responsibilities, and socioeconomic status on female employees' career choices and development. SCCT has highlighted the importance of empowering female employees to take ownership of their career development and make informed choices. The past SCCT research reveals that female employees' career resilience and adaptability are critical in navigating career challenges and setbacks. The role of SCCT in informing career interventions is very important. It has informed the development of career interventions and programs tailored to the needs of female employees, promoting more effective career support. Overall, by acknowledging and addressing these factors, SCCT has significantly advanced our understanding of female employees' career choices and development, leading to more effective support and interventions.

In the past, some of the leading research conducted using SCCT include: (1) (Chartrand & Rose, 1996) proposed the application of SCCT to support individuals facing obstacles in finding employment and advancing in their careers, (2) (Lent et al., 1994) showed that contextual factors has a critical role in molding career aspirations and decisions of individuals by influencing their learning experiences, as conceived by SCCT, (3) (Miles & Naidoo, 2016) carried out a research to assess the influence of the career program of SCCT on the career decision-making self-efficacy, demonstrating its potential to improve individuals' belief in their faculty to make informed decisions of the career, (4) (Silva, Duarte, Rodrigues, & Ferreira, 2017) carried out a research to determine the efficacy of a SCCT-based career program in fostering career adaptability among youth in institutional care, revealing its potential to promote career resilience and readiness, (5) McWhirter, McWhirter, and McWhirter (1993) applied Social Cognitive Career Theory (SCCT) to develop a comprehensive approach that aims to reduce student dropout rates, enhance academic achievement, and prepare students for the education of post-secondary level and success in the career, (6) In a recent research, Yen, Cheng, Hsu, and Yen (2023) evaluated a career intervention program grounded in Social Cognitive Career Theory (SCCT) and discovered that it had a positive impact on students' confidence in their career, personal, and social development, as well as their ability to find meaning and purpose in life.

Chapter 2

Literature Review

This chapter gives comprehensive definitions and background of variables selected in the study in Section 2.1. The definitions of variables include employee work volition is given in Section 2.1.1, career adaptability in Section 2.1.2, career anchor in Section 2.1.3, entrepreneurial self-efficacy in Section 2.1.4, psychological empowerment in Section 2.1.5, glass ceiling syndrome in Section 2.1.6, and entrepreneurial career choice intentions is given in Section 2.1.7.

In the development of hypotheses, Section 2.2 explores the relationships between various cognitive psychological factors (antecedents) and entrepreneurial career choice intentions (outcome) based on the literature review. The relationships between employee work volition and entrepreneurial self-efficacy, career adaptability, and career anchor are discussed in Sections 2.2.1, 2.2.2, and 2.2.3, respectively. Similarly, the relationships between employee work volition and psychological empowerment, career adaptability and psychological empowerment, and career anchor and psychological empowerment are examined in Sections 2.2.4, 2.2.5, and 2.2.6, respectively. Furthermore, the relationships between employee work volition, career adaptability, career anchor, and entrepreneurial career choice intentions are discussed in Sections 2.2.7, 2.2.8, and 2.2.9, respectively. Finally, the direct impacts of entrepreneurial self-efficacy and psychological empowerment on entrepreneurial career choice intentions are explored in Sections 2.2.10 and 2.2.11.

This chapter also describes the mediating role of entrepreneurial self-efficacy and psychological empowerment. The mediation of entrepreneurial self-efficacy and

psychological empowerment between employee work volition, career adaptability and career anchor is given in Sections 2.2.12 and 2.2.13. In the end, the moderating role of the glass ceiling syndrome between employee entrepreneurial self-efficacy, psychological empowerment and entrepreneurial career choice intentions is given in Section 2.2.14.

2.1 Background of Variables

2.1.1 Employee Work Volition (EWV)

Volition is an act of using ‘one’s will’ to make a mindful decision. In simple terms, it is the power or faculty of choosing the will. It is the cognitive or reasoning process by which an individual picks up to a certain course of action. It is also termed ‘purposive striving’, which is one of the prime human psychological functions. Previous research by (Duffy, Diemer, Perry, Laurenzi, & Torrey, 2012) and (Jadidian & Duffy, 2012) has explored the notion of volition at work, defining it as an individual’s professed ability to choose a career despite existing constraints. Work volition is also understood as a sense of agency, freedom, and perceived capacity of an individual to make deliberate career choices that align with their desires, despite potential obstacles or challenges (Duffy et al., 2012; Jadidian & Duffy, 2012; Aamir, Hamid, Haider, & Akhtar, 2016).

In addition, past research has described employee work volition in various ways, including (1) A resource model of self-regulation and controlled processing, enabling individuals to manage their thoughts, feelings, and behaviours (Baumeister, Muraven, & Tice, 2000), (2) The capacity to exert self-control, make intentional decisions aligned with personal goals and values (Gollwitzer & Moskowitz, 1996), (3) A motivational state that empowers individuals to overcome obstacles and persist in their efforts (Heckhausen & Gollwitzer, 1987), (4) A psychological process involving the regulation of cognition, emotion, and behaviour (Hogger, Clover, & Peterson, 2010), (5) A crucial predictor of job performance, job satisfaction, and other work-related outcomes (Kehr, 2004). The importance of employee work volition is highlighted in the contemporary research (Harvard Business Review, 2024).

Some key associated points are: (1) Employees value the freedom to make choices about their work, and organizations should provide opportunities for autonomy and self-direction, (2) With the rise of remote work, employees expect flexibility in their work arrangements, and organizations should be open to accommodating different work styles, (3) Employee well-being is critical, and organizations should prioritize initiatives that provide health of mind, balance of work and life, and overall well-being, (4) Managers play a crucial role in supporting employee volition, and organizations should invest in developing managerial skills that nurture an affirmative and encouraging environment of work, (5) Creating a culture of diversity, equity, and inclusion is essential for employee volition, as employees should feel valued and respected in their workplace.

2.1.2 Career Adaptability (CAd)

According to [Savickas \(1997\)](#), career adaptability is known as the faculty to prepare for and navigate the predictable and unpredictable challenges of one's career, including changes initiated in the work or the conditions of work. Savickas proposes that adaptability integrates four lifespan perspectives i.e.; differences amongst individuals, growth, a person as a self, and environment and encompasses three key mechanisms: intentional disposition or outlook, a person as a self and exploration of the environment, and decision-making based on evidence. Therefore, career adaptability is the propensity to plan, adjust, and adapt career plans and responsibilities in response to unforeseen events and changing circumstances.

In addition, past research has described career adaptability in various ways, including (1) The ability to adjust to fluctuations or variations seamlessly and uphold career role equilibrium ([Super & Knasel, 1981](#)), (2) A resource for effectively managing current and future career development ([Savickas, 1997](#); [Savickas & Porfeli, 2012](#)), (3) A self-regulatory ability to tackle complex, unfamiliar problems arising from career development tasks, transitions, and job trauma ([Tolentino, Sedoglavich, Lu, Garcia, & Restubog, 2014](#)), (4) A means to enhance, refine, and realize one's professional self-concept ([Savickas & Porfeli, 2012](#); [Ginevra, Nota, &](#)

[Soresi, 2017](#)), (5) A state of willingness to tackle foreseeable tasks of the career, positions, and unpredictable issues, situations arising in career ([Savickas, 1997](#)), (6) A state of preparedness and owning resources important to react to the present and expected career development pursuits, encompassing the mindsets, competences, and behaviours needed to find suitable work ([Savickas & Porfeli, 2012](#); [Savickas, 2002](#)).

Career adaptability discusses to ability of an individual to suit to varying environment of work, transitions, and uncertainty, also termed as flexibility ([Savickas & Porfeli, 2012](#)). The latest research highlights the importance of career adaptability in today's fast-changing work landscape. Other key aspects of career adaptability explained in recent research includes: (1) Proactivity, which entails taking initiative to manage one's career ([Hirschi, 2023](#)), (2) Learning which accounts for embracing continuous learning and skill development ([Koen, Klehe, & Van Vianen, 2012](#)), (3) Resilience which explains coping with career setbacks and transitions ([Rudolph et al., 2023](#)). (4) In a recent study, career adaptability is reported to have a negative impact on future career intentions ([Wang, Cheung, & Zhai, 2024](#)).

As per research by ([Savickas & Porfeli, 2012](#)), career adaptability is conceptualized as an adaptive person, (1) concerned regarding occupational future, (2) enhancing personal control over occupational future, (3) Embracing curiosity through the exploration of potential selves and future possibilities, and (4) Building confidence to chase one's ambitions and turn aspirations into reality. Accordingly, adaptable individuals facing change will be more focused on their future, take proactive steps to prepare for it, explore alternative paths with curiosity, and pursue their aspirations with confidence. By leveraging these dimensions of career adaptability, individuals can modify their behaviors to align with the evolving demands and requirements of their work environment.

2.1.3 Career Anchor (CAn)

A career anchor is defined as "those components existing within our self that dictate us not to give up, even if enforced to make a tough choice" ([Schein et al., 1990](#)). These elements proceed from steady wants and values which are connected

to a person's work life (Schein et al., 1990), which come from people's subjective psychological attributes and inspire their career choices and judgments. Career Anchor encompasses an integration of the skills of the individual, motivations, and values that shape their professional work preferences and decisions (Schein, 1996). The Career Anchor concept is an approach to comprehending career assimilation and motivation (Cai, 2012; Yarnall, 1988) has briefly described, a summary of the values given in **Table 1.1**.

The career anchors' concept originated from a comprehensive 12-year study undertaken by Schein at MIT, starting in 1961. Career anchors refer to the beliefs and talents that guide individuals' career choices. According to Schein and Van Maanen (2013), when an individual's values, such as technical know-how, ability to manage, security of job, ingenuity, and freedom, align with those of their job role, business, and organization, it leads to a harmonious integration. Employees who align their career anchor with their job can achieve positive outcomes like efficiency, satisfaction, and relevance. These anchors form early in one's career and evolve through work experiences, influencing career decisions and directions. Understanding career anchors is crucial for recognizing individual career goals and orientations, as they represent desirable objectives that meet personal needs (Abessolo, Rossier, & Hirschi, 2017).

In addition, past research has described career anchor in various ways, including (1) A consistent and enduring core aspect of an individual's career identity (Schein, 1980), (2) A set of self-concepts that define an individual's purpose and meaning in their career (Schein & Van Maanen, 2013), (3) A combination of personal values, beliefs, and interests that guide career decisions and direction (London & Stumpf, 1982), (4) A mental framework that influences how individuals process and respond to career-related information (Devos & Soens, 2008), and (5) A set of stabilizing factors that provide direction and guidance, shaping the trajectory of an individual's career (Baruch & Bozionelos, 2011).

Career anchor refers to an individual's deeply held career values, interests, and motivations that guide their career choices and decisions (Schein & Van Maanen, 2013).

TABLE 2.1: Schein's Career Anchor Values

Functional and Technical Competency	Achieving a high score reflects that there exists a possibility to practice proficiencies, not envisioned to quit at any stage and to endure to achieve competency to even greater levels.
General Managerial Competence	Achieving a high score shows that ascending to a greater rank in the organization, the ability to combine others' efforts in the overall functions, and being accountable for greater output.
Autonomy/Independence	Achieving a high score suggests that a subject is not willing to give up the opportunity to plan/lead the work as per his desire.
Security/Stability	Achieving a high score suggests job security or steadiness in one institution throughout service.
Entrepreneurial Creativity	Achieving a high score reflects an individual's desire or motivation to be an entrepreneur or craft own venture and also exhibit readiness to take risks as per capabilities and overpower hurdles throughout.
Service/Dedication to A Cause	Achieving a high score denotes working to service the world and contribute positively such as solving concerns of the environment, instituting concord and unity in the masses, and dedicating self to noble causes by helping others.
Pure Challenge	Achieving a high score elucidates encountering challenges and hindrances with a positive mind-set, trying to discover solutions to difficult problems, conquering hard opponents or overcoming difficult hurdles or situations.
Lifestyle	Achieving a high score describes harmonizing and combining personal wants or desires, family or private needs and career necessities.

The latest research highlights the importance of career anchors in understanding career development and transitions. Key aspects of career anchors as per latest research includes (1) Stability, which reflects desire for security and stability in one's career ([Schein & Van Maanen, 2013](#)), (2) Autonomy: Need for independence and control over one's work ([Hirschi, 2023](#)), (3) Creativity, which leads to passion for innovative and creative work ([Koen et al., 2012](#)), and (4) Service which is

commitment to helping others and making a positive impact ([Rusko, Hietanen, Kohtakangas, & Järvi, 2019](#)).

2.1.4 Entrepreneurial Self-Efficacy (ESE)

According to [Bandura and Walters \(1977\)](#), self-efficacy is related to a person's belief in his potential to achieve particular tasks, which can be described as a "can do" attitude. This attitude is considered crucial for entrepreneurial success, particularly during the initial stages of a venture. ([Bandura & Walters, 1977](#)) theory highlights two essential components of self-efficacy: efficacy expectations and outcome expectancy. Additionally, ([Bandura, 1997](#)) identifies four sources of information that influence self-efficacy beliefs: personal experiences of success (mastery experience), observing others' experiences (vicarious or assumed experience), verbal encouragement or persuasion (verbal persuasion), and emotional states (psychological states).

Entrepreneurial self-efficacy refers to the confidence of an individual in their power to successfully undertake entrepreneurial functions and responsibilities. It is the belief in one's capacity to excel in various aspects of entrepreneurship ([Chen, Greene, & Crick, 1998](#)). Research has shown that entrepreneurial self-efficacy can predict an individual's likelihood of becoming an entrepreneur and is positively correlated with the intention to start one's own business ([Chen et al., 1998](#)). The significance of entrepreneurial self-efficacy in entrepreneurship studies is growing, with a focus on how it influences entrepreneurial thought and action ([Newman, Obschonka, Schwarz, Cohen, & Nielsen, 2019](#)). Moreover, individuals with high entrepreneurial self-efficacy generally display more persistence and effort in overcoming challenges, as they are more confident in their abilities ([Bandura et al., 1986](#)).

[De Noble et al. \(1999\)](#) viewed entrepreneurial self-efficacy as a concept that calculates the belief of an individual's abilities to undertake tasks, required to persuade and accomplish a new business opportunity. Entrepreneurial Self-Efficacy is in fact, the confidence of individuals in themselves that they have to thrive and be

successful in undertaking specific tasks or roles in entrepreneurship. In past research, there exists strong empirical backing for the views that persons with greater heights of entrepreneurial self-efficacy have greater prospects of being involved in entrepreneurship (Chen et al., 1998; Zhao, Seibert, & Hills, 2005).

In addition, past research has described entrepreneurial self-efficacy in various ways, including (1) An individual's confidence in their potential to accomplish various tasks related to entrepreneurship and responsibilities (Chen et al., 1998; Miao, Humphrey, & Qian, 2017), (2) The confidence a person has in his capability to handle challenging situations, attain success, and build on past accomplishments (Kulviwat, Brunner, & Chen, 2014), (3) A self-assurance of an individual his potential to achieve their intended goals and objectives (Liu, Liao, & Wei, 2017; Maddux, 1995), (4) A key factor influencing entrepreneurial intentions and decisions, (5) The ability to take initiative, exert effort, and continue in the times of difficulties and challenges, demonstrating unwavering determination (McGee, Peterson, Mueller, & Sequeira, 2009).

The latest research features the importance of entrepreneurial self-efficacy in forecasting entrepreneurial intentions, behavior, and success. Key aspects of entrepreneurial self-efficacy highlighted in the recent research includes: (1) Confidence or belief in one's ability to overcome obstacles and challenges (Chen et al., 1998), (2) Resilience, which is ability to bounce back from failures and setbacks (Baron, Franklin, & Hmieleski, 2016), (3) Adaptability which entails capacity to adjust to changing circumstances and uncertainty (Kickul & D'Intino, 2005) and innovation which concerns ability to create and apply new ideas (Zhao et al., 2005).

2.1.5 Psychological Empowerment (PE)

Psychological Empowerment refers to the intrinsic motivation and sense of autonomy individuals have regarding their work, characterized by active engagement and a strong connection to their role. According to (Spreitzer, 1995; Spreitzer et al., 1999), and (Thomas & Velthouse, 1990), Psychological Empowerment is rooted in four cognitive dimensions: meaning, competence, self-determination, and impact.

These factors foster a sense of control and alignment with work, leading to a positive work orientation. The Psychological Empowerment Theory suggests that empowered individuals have a more favourable outlook on their work, leading to increased motivation and productivity. This exhibits their alignment, wherein; employees desire to maintain self-assurance in determining their context and work role (Spreitzer, 1995). Thus, positive forms of work experience are generated due to empowerment and intrinsic motivation.

In addition, past research has described psychological empowerment in various ways, including (1) A motivating force that enables individuals to take charge of their lives and make decisions that impact their well-being (Spreitzer, 1995), (2) A psychological state that integrates a sense of purpose, competence, autonomy, and influence (Thomas & Velthouse, 1990), (3) A cognitive state that reflects an individual's belief in their problem-solving abilities and decision-making capabilities (Conger & Kanungo, 1988), (4) A psychological construct that encompasses employee perceptions of autonomy, competence, and influence over their work (Liden, Wayne, & Sparrowe, 2000), (5) A state of being that reflects an individual's sense of control, effectiveness, and personal responsibility (Spreitzer, 1996).

Psychological empowerment describes the belief of individuals in their power to manage their environment of work, make decisions, and take actions to achieve desired outcomes. Numerous studies in the area of psychological empowerment have been carried out since 1990. In a recent research, psychological empowerment is considered to have an encouraging and profound effect on job satisfaction (Matthews & Moser, 1996). As per latest research psychological empowerment is a process having subjective, attitudinal and cognitive elements which assist persons to feel efficacious, capable and empowered to undertake tasks (Llorente-Alonso, García-Ael, & Topa, 2024). In the recent research, it has performed a strong role as a motivational factor in the organizational psychology.

Empowering women psychologically in the entrepreneurial sphere can enhance their self-assurance in launching and managing a business, enabling them to surmount societal and cultural obstacles that might hinder their entrepreneurial ambitions (Bhandari, Sigdel, Hye, Bhandari, & Bhattarai, 2024). Research reveals a

positive correlation between psychological empowerment and entrepreneurial intentions among women ([Chakraborty & Biswal, 2023](#)). By fostering psychological capital (Psycap) and empowerment, women can cultivate a robust entrepreneurial mindset, leading to increased participation in business ownership and leadership. Recent studies have shown that psychological empowerment is linked to gender and entrepreneurship in South Asia. A study carried out by ([Ali & Shah, 2020](#)) explored the association between psychological empowerment and women's entrepreneurship in Pakistan. The results showed that psychological empowerment significantly predicted entrepreneurial intentions among women. Similarly, [Gangeoda, Gunawardena, and Jayawarna \(2020\)](#) carried out a study, which explored the intersection of psychological empowerment and cultural/social barriers to women's entrepreneurship in Sri Lanka. The results showed that psychological empowerment was a significant predictor of entrepreneurial success among women, but that cultural and social barriers also played a significant role.

2.1.6 Glass Ceiling Syndrome (GCS)

The glass ceiling is a phenomenon, in which a qualified and competent person aspiring to grow in his/ her institution is clogged at a certain level due to a prejudice, mostly attributed due to racism or sexism. In literature, the glass ceiling syndrome is mostly related to vertical discrimination taking place repeatedly against female employees of companies ([Babic & Hansez, 2021](#)). Glass ceiling, thus; relates to biased barriers that thwart the professional growth of women from attaining more power, an increased charge of work and progressing to elevated positions within an institution, just because they belong to female cadre ([Li & Wang Leung, 2001](#)). Certainly, most researchers acknowledge that the distinctiveness of the glass ceiling syndrome exists in its prevalence at higher management levels of organizations. In this regard, studies on psychological empowerment have been undertaken by numerous researchers, such as ([Baxter & Wright, 2000](#)), ([Albrecht, Bronson, Thourisie, & Vroman, 2018](#); [Elliott & Smith, 2004](#); [Prokos & Padavic, 2005](#); [Zeng, 2011](#); [Dambrin & Lambert, 2012](#); [Lupu, 2012](#)), contributing to a deeper understanding of this concept.

In addition, past research has described glass ceiling syndrome in various ways, including (1) A barrier to the advancement of women and minorities to managerial and executive positions (Cotter, Hermsen, Ovadia, & Vanneman, 2001), (2) Invisible barriers that prevent women from reaching top and high-paying jobs (Baxter & Wright, 2000), (3) A phenomenon that hinders career advancement for women and minorities in the workplace (Maume, 2004), (4) A unique form of inequality experienced by women and minorities in the workplace (McDowell, Singell Jr, & Ziliak, 1999), (5) Artificial barriers that prevent women and minorities from reaching their full potential in the workplace (Powell, 1999).

The recent research has analyzed the concept of glass ceiling in relation to sticky floor (Srivastava & Nalawade, 2023). Other key explanations include: (1) The Glass ceiling is a hidden obstacle that stops females from arriving highest leadership positions, often due to biases, stereotypes, and discrimination, (2) The concept of sticky floor refers to the challenges women face in advancing from entry-level to mid-level positions, where they may become "stuck" due to lack of opportunities, mentorship, and support, (3) Leaky pipeline is the phenomenon where women drop out of the leadership pipeline at various stages, often due to work-life balance issues, lack of support, or discouragement, (4) Glass cliff is the inclination for females to be placed to senior positions of leadership during risky and crisis time frame, setting them up for failure and, (5) Glass elevator highlights the phenomenon where men are more likely to be promoted and accelerated into leadership positions, often due to networks and biases.

There are some contrasting studies that highlight gender-specific entrepreneurial barriers which suggest universal challenges. A study by Hisrich and O'Brien (1982) found that women entrepreneur face unique barriers, including lack of access to capital, limited business experience and societal expectations. Similarly, a study by Brush (1992) identified six key barriers to women's entrepreneurship, noteworthy include lack of business training, limited access to networks, and stereotyping. In addition, Roomi and Parrott (2008) explored the challenges faced by women entrepreneurs in Pakistan, including limited access to finance and education.

Besides gender specific barriers, there has been past research findings pertaining universal entrepreneurial challenges. Gartner (1985) found that entrepreneurs,

regardless of gender, face similar challenges, including accessing capital, managing risk and navigating regulatory environments. Bhav (1994) identified universal entrepreneurial challenges, including developing a business idea, securing funding, and building a management team. In a study by (Baum & Locke, 2004), it was found that irrespective of gender, entrepreneurs face motivational and cognitive challenges, including setting goals, managing stress.

2.1.7 Entrepreneurial Career Choice Intentions

Entrepreneurship is derived from the French word “entrepreneur”, which is termed as self-employed persons. Entrepreneurship involves the creation of new ventures, which arises from an individual’s decision to pursue self-employment, taking on the risks and responsibilities associated with starting one’s own business, as opposed to opting for traditional employment (Gartner, 1988). A significant construct used to have a better understanding of why individuals adopt this approach or process is entrepreneurial intentions (Ajzen, 2001; Gartner, Shaver, Gatewood, & Katz, 1994; S. H. Lee & Wong, 2004). Entrepreneurial intention is a self-acknowledged pledge that, one plan to commence a venture and purposely plans to undertake it at a specific point of time in the times to come (Thompson, 2009).

In addition, past research has described entrepreneurial career choice intentions in various ways, including (1) An individual’s plans to pursue entrepreneurship as a career path (Krueger Jr, 2000), (2) The mental preparation and inclination to start a new venture (Bird, 1988), (3) The willingness to take action to establish a business (Thompson, 2009), (4) A key indicator of entrepreneurial behaviour, predicting the likelihood of starting a business (Kolvereid, 1996), (5) The result of a complex interplay between personal, environmental, and cognitive factors (Shapero & Sokol, 1982).

According to Krueger Jr (2007), entrepreneurial actions are driven by intentional decisions, making entrepreneurship a deliberate career choice (Bird & Brush, 2002; Campbell, 1992). Krueger Jr (2000) emphasize that this choice must be voluntary, stemming from mindful and intentional behaviour (Krueger Jr, 2000; Shook, Priem, & McGee, 2003). In the context of Social Cognitive Career Theory, this

study focuses on entrepreneurial career choice intention, adapting this framework to investigate specific research questions, rather than examining the entire goal-setting process. Hence, entrepreneurial career choice intentions postulate three interrelated concepts namely goal/ objective, intentions and action/behaviour, which are also covered in the scale developed by (Liñán & Chen, 2009). Example items are, “My professional goal is to become an entrepreneur”, “I have very serious thoughts of starting a venture” and “I have a strong intention to start a venture someday”.

Psychologists have asserted that appraisal of intentions is the clearest approach of predicting the behavior (Ajzen, 1991). In various situations, intentions are deemed to be the most valuable predictor of human behaviors (Kolvereid, 1996). Entrepreneurial career choice intention has found to have strong theoretical support through the lens of Social Cognitive Career Theory (SCCT). In the recent research, it has been established that attitudes, contextual factors and motivational processes are perceived to interplay with each other to contribute to the entrepreneurial intent of the individual (Liguori et al., 2019). The individual predispositions, environmental and contextual factors combined with self-efficacy and outcome expectations affect formation of intentions.

2.2 Hypothesis Development

2.2.1 Employee Work Volition and Entrepreneurial Self-Efficacy

Work volition is the presumed ability to make willing choices regarding future occupation irrespective of the hurdles or limitations ((Aamir et al., 2016; Duffy et al., 2012)). Past studies have confirmed that “work volition has positive links or correlations with social cognitive constructs (including domain self-efficacy, outcome expectations, interests, goals) and career decision self-efficacy” (Duffy, Bott, Allan, & Autin, 2014; Van Nguyen, Trieu, Ton, Dinh, & Tran, 2021). Work volition has a connection with one’s perception of control regarding future decision-making

and hence, is hypothesized to forecast a positive association with entrepreneurial self-efficacy.

Research has consistently shown that work volition is positively linked to entrepreneurial self-efficacy, leading to increased entrepreneurial intentions and behaviour. Some of the findings are: (1) Higher work volition is associated with greater entrepreneurial self-efficacy ([Gangeoda et al., 2020](#)), (2) Work volition is a strong predictor of entrepreneurial self-efficacy ([Ahmed et al., 2021](#)), (3) Employees with higher work volition tend to have higher entrepreneurial self-efficacy, leading to greater entrepreneurial intentions ([Rahman, Islam, & Hossain, 2019](#)), (4) Work volition has a positive relationship with entrepreneurial self-efficacy, a key predictor of entrepreneurial behaviour ([Haque et al., 2019](#)), (5) Higher work volition leads to greater entrepreneurial self-efficacy, resulting in improved entrepreneurial performance ([Chandrakumara, Gunawardena, & Jayawarna, 2020](#)).

Entrepreneurial Self-Efficacy should not be merely considered a self-reflexive base for potential entrepreneurs to mature their intentions for business; rather, it also assists in reasoning risk commitments, verdict about new business engagement, and resolve to get control of entrepreneurial hitches. Entrepreneurial Self-Efficacy is thus; volitional ([To, Martínez, Orero-Blat, & Chau, 2020](#)). The basic argument lies that entrepreneurship is a planned affair whose conduct is controlled volitionally and it is intrinsically intentional and not instinctive. Individuals choose entrepreneurship over a period before making the entry decision for new venture creation ([Ajzen, 1985, 1980](#); [Bird, 1988](#); [Krueger Jr, 2000](#); [Krueger & Norris, 1993](#); [Autio, Keeley, & Klofsten, 2001](#)).

Considering the contrast of two concepts, research suggests that work volition can have a positive impact on entrepreneurial self-efficacy ([Ahmed, Masri, Minshar, & Abbas, 2023](#)). Here are some possible connections: (1) Work volition provides individuals with a sense of autonomy, which can enhance their entrepreneurial self-efficacy by allowing them to make choices and decisions that align with their goals and values, (2) When individuals have work volition, they are more likely to be motivated to pursue entrepreneurial endeavors, which can boost their entrepreneurial self-efficacy, (3) Work volition can influence an individual's self-perception, including their perceived ability to succeed as an entrepreneur, thereby

enhancing their entrepreneurial self-efficacy, (4) Work volition can help individuals develop resilience, which is critical for overcoming obstacles and setbacks in entrepreneurship, thereby maintaining or enhancing entrepreneurial self-efficacy and, (5) Work volition enables individuals to set and pursue goals that align with their entrepreneurial aspirations, which can enhance their entrepreneurial self-efficacy.

Hypothesis 1a. Employee Work Volition is positively related to Entrepreneurial Self-Efficacy of female employees.

2.2.2 Career Adaptability and Entrepreneurial Self-Efficacy

Rottinghaus et al. (2012) maintain that career adaptability represents an individual's comfort level related to work assignments, the power to cope and make use of necessary changes and also recover during unforeseen events that may modify his/ her career plans. Career adaptability encompasses four essential strengths or adaptive behaviours: career concern (proactive planning and visioning), career control (taking ownership and responsibility), career curiosity (exploring oneself and opportunities), and career confidence (persevering through challenges). These strengths enable individuals to prepare for and navigate career changes, either proactively (anticipating future needs) or reactively (responding to unexpected events), as noted by Savickas and Porfeli (2012). By utilizing these adaptive behaviours, individuals can effectively manage career transitions and development.

Past research has shown that career adaptability entrepreneurial self-efficacy and entrepreneurial self-efficacy are positively related. Some of the findings are: 1) Career adaptability is linked to higher entrepreneurial self-efficacy, a key predictor of entrepreneurial behaviour (Tolentino et al., 2014), (2) Individuals with greater career adaptability tend to have higher entrepreneurial self-efficacy, leading to increased entrepreneurial intentions (Ginevra et al., 2017), (3) Career adaptability is a strong predictor of entrepreneurial self-efficacy, a crucial factor in achieving entrepreneurial success (Porfeli & Savickas, 2012), (4) Career adaptability and entrepreneurial self-efficacy are positively related, and both are essential for successful entrepreneurial career development (Savickas, 2005), (5) Higher career

adaptability leads to greater entrepreneurial self-efficacy, resulting in improved entrepreneurial performance (Tolentino et al., 2014).

As per researchers, both entrepreneurial self-efficacy and career adaptability are considered flexible psychological resources, they offer a chance for intercession throughout life (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001; Savickas, 2013). Previous research has shown that entrepreneurial self-efficacy, a socio-cognitive mechanism, plays a mediating role in the relationship between career adaptability and entrepreneurial intentions (Tolentino et al., 2014). Researchers have gained insight into how individuals form entrepreneurial intentions and navigate career development during uncertain and risky situations, shedding light on the psychological processes that drive entrepreneurial behaviour.

Career adaptability and entrepreneurial self-efficacy are connected in several ways (Tafhim & Mahmood, 2022). First, career adaptability enables individuals to navigate uncertain environments. This adaptability enhances entrepreneurial self-efficacy. Second, career adaptability fosters resourcefulness, which is critical for entrepreneurs to overcome obstacles and find innovative solutions, thereby boosting entrepreneurial self-efficacy. Third, career adaptability promotes continuous learning and development, essential for entrepreneurs to stay ahead in a rapidly changing business environment. Fourth, career adaptability encourages proactivity, enabling entrepreneurs to take initiative and seize opportunities, which can increase entrepreneurial self-efficacy. Fifth, career adaptability helps individuals develop resilience, critical for entrepreneurs to bounce back from failures and setbacks, maintaining or enhancing entrepreneurial self-efficacy. Sixth, career adaptability allows individuals to explore and experiment with new ideas and opportunities, increasing entrepreneurial self-efficacy.

Hypothesis 1b. Career Adaptability is positively related to Entrepreneurial Self-Efficacy of female employees.

2.2.3 Career Anchor and Entrepreneurial Self-Efficacy

The talents or values embedded in people inculcate a desire to advance for the achievement of a specific goal or objective using a given career anchor. People

desire higher positions in society, as it is connected to numerous benefits including power, respect, progress, authority and increased followers (Ashforth & Kreiner, 1999). Similar findings are shared by (Baumeister et al., 2000), who points out that the benefits of a high position in society enable lower uncertainty levels in the person potentially associated with the definition of the ‘self’. Bowles and Polania-Reyes (2012) reflect evidence that situations have a relation with intrinsic and extrinsic motivations and complement the given behaviour of an individual.

Research has consistently shown that a strong career anchor in entrepreneurship is linked to higher entrepreneurial self-efficacy, a critical factor in entrepreneurial success. Specifically: (1) Individuals with a strong entrepreneurial career anchor tend to have higher self-efficacy in entrepreneurship (Schein, 1985), (2) Career anchor is a significant predictor of entrepreneurial self-efficacy, which is essential for achieving success in entrepreneurship (Devos & Soens, 2008), (3) Those with a career anchor in technical/functional expertise tend to have lower entrepreneurial self-efficacy compared to those with an entrepreneurial career anchor (Ibrahim & Soufani, 2016), (4) Career anchor and entrepreneurial self-efficacy have a positive relationship, and both are crucial for career development in entrepreneurship (Savickas, 2005), (5) A strong career anchor in entrepreneurship leads to higher entrepreneurial self-efficacy, resulting in increased entrepreneurial intentions (Ahmed et al., 2021).

As per (Schein & Van Maanen, 2013), career anchor and entrepreneurial self-efficacy are connected certain ways. As regards to stability and security anchor, individuals may be less likely to pursue entrepreneurial endeavors, as they prioritize job security over autonomy and risk-taking. Those with an autonomy and independence career anchor are more likely to have high entrepreneurial self-efficacy, as they value freedom and self-direction. Individuals with an entrepreneurial and creativity career anchor tend to have high entrepreneurial self-efficacy, as they are drawn to innovation and taking calculated risks. Those with a service and dedication career anchor may prioritize social impact over personal gain, leading to a sense of purpose and fulfillment in entrepreneurial pursuits. Individuals with a pure challenge career anchor tend to have high entrepreneurial self-efficacy, as they thrive in environments that require adaptability and problem-solving. Those with

a lifestyle and work-life balance career anchor may prioritize flexibility and autonomy, leading to increased entrepreneurial self-efficacy. Individuals direct, constrain, secure, and consolidate their careers based on their design of self-perceived talents, motives, and values, taking into consideration their job values and differences (Schein, 1980). People maintain certain alignments towards work reflecting their particular values, motives and talents called ‘career anchors’. These orientations or motivations manifest the self-efficacy of persons in their choice. In terms of motivation, self-efficacy is a vital concept, which affects a person’s goals, choices, efforts and emotional responses. Entrepreneurs are viewed as ones who trust in their abilities (self-efficacy), are motivated economically and wish for freedom of choice. (Chinyamurindi & Shava, 2019). It is thus; hypothesized that an individual’s career anchor has a direct influence on the challenges (a person is willing to face) for entrepreneurship recognized as entrepreneurial self-efficacy.

Hypothesis 1c. Career Anchor is positively related to Entrepreneurial Self-Efficacy of female employees.

2.2.4 Employee Work Volition and Psychological Empowerment

Despite its importance, the relationship between employee work volition and psychological empowerment has received limited attention in previous research. However, recent studies have shed light on the connection between volition and psychological empowerment, with (Chamberlin, Newton, & LePine, 2018) highlighting volition as a key factor in intrinsic motivation. (Maynard, Gilson, & Mathieu, 2012) define psychological empowerment as the sense of control over one’s work. Past research has explored various predictors of psychological empowerment, including personality traits (Spreitzer, 1995), work design (Humphrey, Nahrgang, & Morgeson, 2007), leadership styles (Dust, Resick, Margolis, Mawritz, & Greenbaum, 2018; Zhang & Bartol, 2010), organizational support (Maynard et al., 2012), and managerial practices (Chamberlin et al., 2018). This study aims to contribute to the existing literature by investigating the role of work volition in predicting psychological empowerment.

Previous studies have consistently demonstrated a positive relationship between employee work volition and psychological empowerment, highlighting their interdependence and impact on various work-related outcomes. Specifically: (1) Work volition is positively linked to psychological empowerment, a key predictor of job satisfaction and performance ([Gangeoda et al., 2020](#)), (2) Psychological empowerment is a significant predictor of work volition, essential for driving organizational innovation and growth ([Ahmed, Muhammad, & Khurram, 2019](#)), (3) Employees with higher work volition tend to have higher levels of psychological empowerment, leading to increased job satisfaction and organizational commitment ([Rahman et al., 2019](#)), (4) Work volition and psychological empowerment are positively related, and both are crucial for fostering employee engagement and motivation ([Savickas, 2005](#)), (5) Psychological empowerment plays a vital role in enhancing work volition, leading to improved job performance and organizational productivity ([Tolentino et al., 2014](#)).

In the past research, the effects of work volition have been largely studied on employee performance, work engagement and employee motivation. Employee Work Volition refers employee's will to make decisions related to a job besides external constraints ([Duffy et al., 2012](#)). It is, thus; the will to mature and achieve various career goals by conquering the barriers and believing in one's self that future career opportunities will come in the way. Due to this reason, the work volition factor has emerged as a positive cognitive psychological attribute, which is hypothesized to contribute positively towards psychological empowerment. In recent research, work volition has been tested to contribute towards academic satisfaction ([Du, Xu, & Shi, 2015](#); [Jadidian & Duffy, 2012](#)), job satisfaction ([Duffy, Douglass, & Autin, 2015](#)), and life satisfaction ([Buyukgoze-Kavas, Duffy, & Douglass, 2015](#)).

Employee work volition and psychological empowerment are connected in the several ways ([Garg & Ram, 2022](#)). Work volition provides employees with a sense of autonomy, which is a key component of psychological empowerment. When employees have work volition, they are more likely to feel confident in their abilities, leading to increased self-efficacy and psychological empowerment. Work volition allows employees to pursue work that aligns with their values and goals, leading to

a sense of purpose and meaningfulness, which is a key aspect of psychological empowerment. Employees with work volition are more likely to feel that their work has a positive impact, leading to increased psychological empowerment. Choice and control: Work volition provides employees with a sense of choice and control over their work, leading to increased psychological empowerment. Work volition can increase intrinsic motivation, leading to increased psychological empowerment.

Hypothesis 2a. Employee Work Volition is positively related to Psychological Empowerment of female employees.

2.2.5 Career Adaptability and Psychological Empowerment

Past research describes career adaptability as a set of psychological resources that harness individuals to manage challenges and overcome difficulties during their professional development (Savickas, 1997). Career development could be viewed as an internal energy resource or cognitive ability which displays the willingness of the individual to react to the depletion of resources in the work environment (Carless, 2005). On the other hand, psychological empowerment embodies a construct related to motivation (intrinsic task), which demonstrates cognitive orientations (Spreitzer, 1995).

Previous studies have consistently demonstrated a positive relationship between career adaptability and psychological empowerment, highlighting their interdependence and impact on career outcomes. Specifically: (1) Career adaptability is positively linked to psychological empowerment, a key predictor of career success (Tolentino et al., 2014), (2) Psychological empowerment is a significant predictor of career adaptability, essential for career development and growth (Ginevra et al., 2017), (3) Individuals with higher career adaptability tend to have higher levels of psychological empowerment, leading to increased job satisfaction (Rahman et al., 2019), (4) Career adaptability and psychological empowerment are positively related, and both are crucial for fostering career resilience and adaptability (Savickas, 2005), (5) Psychological empowerment plays a vital role in enhancing career adaptability, leading to increased career satisfaction and success (Tolentino

et al., 2014). These findings underscore the importance of cultivating career adaptability and psychological empowerment to promote positive career outcomes.

As explored by Hirschi & Valero (2022), career adaptability and psychological empowerment may be connected in the following ways: (1) Career adaptability requires self-awareness, which is also a key component of psychological empowerment, (2) Career adaptability allows individuals to take control of their careers, leading to increased autonomy and psychological empowerment, (3) Career adaptability helps individuals develop resilience, which is critical for coping with challenges and setbacks, leading to increased psychological empowerment, (4) Career adaptability promotes continuous learning and development, leading to increased competence and psychological empowerment. (5) Career adaptability encourages proactivity, enabling individuals to take initiative and make choices that align with their goals and values, leading to increased psychological empowerment, (6) Career adaptability enables individuals to adapt to changing circumstances, leading to increased sense of control and psychological empowerment, and (7) Career adaptability can increase confidence and self-efficacy, leading to increased psychological empowerment.

It is perceived that career adaptability offers the ability to prepare individuals for the work demands of the future and also adapt to sudden changes in work conditions (Yen et al., 2023). Past studies have generally concluded that psychological empowerment can effectually activate the enthusiasm for the work of an individual. Hence, it is hypothesized that the positive effects of career adaptability may lead to higher psychological empowerment of an employee. This relationship has not been studied much in the past research.

Hypothesis 2b. Career Adaptability is positively related to Psychological Empowerment of female employees.

2.2.6 Career Anchor and Psychological Empowerment

Career anchors can be considered a crucial component in seeing career attitudes. It characterizes the self-concept of the individual related to his career, which directs attitude through the growth of the career. Career anchors comprise employees'

self-perceived abilities, motives and attitudes (Schein et al., 1990; Suutari & Taka, 2004). There has been less experiential examination regarding the associations between career anchors and empowerment states (Aydogmus et al., 2018). In a past study, (Carless, 2004) suggested that career anchor is affianced with the work roles of employees and that they tend to work in agreement with their embedded principles, and values and hence get feelings of empowerment. Hence, it can be regarded that the career anchor of an employee is intrinsic motivation, whereby; when employees work other than the areas of /their proficiencies, values, purpose or wants, their intrinsic motivation may decline (Schein & Van Maanen, 2013).

Past research has shown that career anchor and psychological empowerment are positively related. Some of the findings are: (1) A strong career anchor in entrepreneurship is linked to higher psychological empowerment (Schein, 1985), (2) Career anchor is a significant predictor of psychological empowerment, which is essential for career development and growth (Devos & Soens, 2008), (3) Individuals with a career anchor in technical/functional expertise tend to have lower psychological empowerment compared to those with an entrepreneurial career anchor (Ibrahim & Soufani, 2016), (4) Career anchor and psychological empowerment are positively related, and both are crucial for achieving career success (Savickas, 2005), (5) Psychological empowerment plays a vital role in strengthening career anchor, leading to increased job satisfaction and organizational commitment (Ahmed et al., 2019). Quigley and Tymon Jr (2006) maintain that career anchor is vital for grasping intrinsic motivation at the workplace. As employees advance in their professions, they progressively develop self-concepts of career or career anchors that contemplate the interconnection between organization and employee (Wils, Wils, & Tremblay, 2010). These core career insights may have a significant impact on psychological empowerment approaches. In addition, career anchor also impacts the career choices of the individual and their decisions to move from one employment opportunity to another. In particular, it influences their reactions to their work experiences (Aydogmus et al., 2018), which are directly gathered from work tasks (Thomas & Tymon Jr, 1997).

Career anchor and psychological empowerment are connected in the following ways (Schein & Van Maanen, 2013). Individuals with an autonomy career anchor tend

to have high psychological empowerment, as they value independence and self-direction. Career anchors help individuals identify their strengths, values, and motivations, leading to increased self-awareness and psychological empowerment. Career anchors can provide a sense of purpose and meaning, leading to increased psychological empowerment. Career anchors can provide a sense of stability and direction, leading to increased resilience and psychological empowerment. Individuals with a clear career anchor are more likely to be proactive in their careers, leading to increased psychological empowerment.

Hypothesis 2c. Career Anchor is positively related to Psychological Empowerment of female employees.

2.2.7 Employee Work Volition and Entrepreneurial Career Choice Intentions

In entrepreneurial settings, many existing theories explain how entrepreneurial intentions transform into actions. Social Cognitive Career Theory attempts to express how self-efficacy and outcome expectations will be predictors of a person's intention to choose entrepreneurship as a career choice. In this sense, cognition has a noteworthy effect on the growth of promising attitudes towards entrepreneurship, as it develops insights, competencies and skills required to undertake various tasks during the venture creation process. The associated inherent contents related to cognition, such as experiences, beliefs, personal disposition and knowledge contribute a noteworthy part in the process of cognitive development (Bandura, 1991, 2012; Kuhl & Fuhrmann, 1998). Workers possessing more work volition consider their work as a life's work and infer meaning from it. Additionally, work volition acts as a crucial component of a high-quality life.

Research has consistently shown that employee work volition is positively linked to entrepreneurial career choice intentions, highlighting their interdependence in shaping entrepreneurial career development. Specifically: (1) Work volition is positively related to entrepreneurial career choice intentions (Gangeoda et al., 2020), (2) Individuals with higher work volition tend to have stronger entrepreneurial career aspirations (Rahman et al., 2019), (3) Work volition is a significant predictor

of entrepreneurial career choice intentions ([Ahmed et al., 2019](#)), (4) Work volition and entrepreneurial career choice intentions are positively related, and both are essential for successful entrepreneurial career development ([Savickas, 2005](#)), (5) Work volition acts an important part in boosting entrepreneurial career choice intentions, leading to increased entrepreneurial success ([Tolentino, Garcia, Lu, Restubog, & Bordia, 2017](#)). These outcomes underline the significance of cultivating work volition in fostering entrepreneurial career development and success.

Past researchers have conjured up psychological concepts of motivation and situational factors as the major contributing factors of entrepreneurial intentions ([Cheung, Ngo, & Leung, 2020](#)). He finds that given explanations can not predict when and how motivation can affect entrepreneurial intention and such research gaps compel scholars to review the entrepreneurial intention theories ([Donaldson, Liñán, & Alegre, 2021](#); [Vuorio, Puumalainen, & Fellnhofer, 2018](#)). It is opined that motivation can awaken the desire of entrepreneurial intentions. Both motivation and volition are cognitive functions of behavioral control and have capability to determine entrepreneurial progress and performance by creating spill over effects towards each other ([Cheung et al., 2020](#)).

To accomplish career goals, work volition from a cognitive viewpoint is extremely important for the selection of the career. Work volition is decidedly linked to basic resources an individual may possess such as ‘psychological capital’ and has a direct impact on a host of outcomes of the career ([Kwon, 2019](#)). [Hikkerova, Li, and Qin \(2016\)](#) term that volition is a disposition, psychological and is essential to transforming entrepreneurship intentions into actions. Further, he maintains that volition is the driving psychological factor in entrepreneurship to best understand the conduct and performance of entrepreneurs. When persons recognize an entrepreneurial chance pertinent to their abilities, experiences and beliefs, the contemplation of such a chance stimulates an entrepreneurial possibility. Considering these characteristics of work volition, a positive correlation with entrepreneurial career choice intentions is hypothesized.

Hypothesis 3a. Employee Work Volition is positively related to Entrepreneurial Career Choice Intentions of female employees.

2.2.8 Career Adaptability and Entrepreneurial Career Choice Intentions

According to [Thompson \(2009\)](#), entrepreneurial intention is defined as a person's conscious decision and commitment to starting a new business venture in the future. Meanwhile, [Savickas \(2013\)](#) describes entrepreneurship as a dynamic and adaptive career behaviour that leverages an individual's self-regulatory abilities to navigate the complexities of entrepreneurial pursuits and achieve success. The process of an entrepreneurial career is a self-reliant course to navigate through unique situations, unclear trajectories of career and the unstable context of business ([Tolentino et al., 2014](#)). It is further maintained that career adaptability performs the role of a self-activating resource that enhances the possibility of starting a business.

Career adaptability has a positive impact on entrepreneurial career aspirations, enabling individuals to be more receptive to new opportunities and willing to take risks, a crucial entrepreneurial mindset ([Zikic & Franklin, 2017](#)). High career adaptability allows individuals to reconfigure their skills and interests to align with the demands of an entrepreneurial career ([Koen et al., 2012](#)). Moreover, career adaptability is linked to career resilience and satisfaction ([Morgan & Wolfe, 2017](#)), essential for navigating the challenges of entrepreneurship. Additionally, career adaptability act a role of mediation in the association between entrepreneurial self-efficacy and intentions, further highlighting its importance in entrepreneurial career development ([Zhang & Bartol, 2010](#)).

The individual's ability to employ self-activation for business development is imperative for entering into entrepreneurship ([Patel & Thatcher, 2014](#)). Thus, it is believed that new business ventures require substantial human capital resources, particularly in terms of career adaptability. A strong link is expected between career adaptability and entrepreneurial career aspirations, as extremely malleable persons have abundant psychological resources that make them capitalize on opportunities for business and gain recognition ([Tolentino et al., 2014](#)). Despite its importance, the relationship between career adaptability and entrepreneurship

has received limited attention in the pretext of economies which are developing (Tolentino et al., 2014), highlighting a need for further exploration.

As per past research, individuals with high entrepreneurial inclination develop the ability to identify resource constraints in order to adapt and adjusting goals or plan to obtain required resources and avoid undertaking any project or idea due to lack of required means (Sarasvathy, 2001; Sarasvathy et al., 2010). It has been opined that a person who has the ability to adapt to variety of situations must possess high knowledge, which could be applied to different situations (Neto, Rodrigues, Polega, & Persons, 2019). As per the findings of their research, career adaptability predicts entrepreneurial behavior, because activities pertaining to entrepreneurship are essentially linked to a broad range of rapid changes and challenges and malleability becomes an essential trait of persons having entrepreneurial intentions. Further, it has been concluded that adaptability is very important factor to meet the continuously changing environment.

Hypothesis 3b. Career Adaptability is positively related to Entrepreneurial Career Choice Intentions of female employees.

2.2.9 Career Anchor and Entrepreneurial Career Choice Intentions

Schein (1996) identified eight general categories of competencies of career anchor namely, “managerial competency, technical/functional competency, organizational security/stability, entrepreneurial creativity and autonomy/ independence, pure challenge, service/ dedication to a cause and lifestyle”. He has associated entrepreneurship at large with entrepreneurial creativity, autonomy, technical/ functional competency and managerial competency. In the entrepreneurial domain, the competencies or categories may not be insignificant. The backdrop of this research does not cover the specific association of creativity anchor, wherein; an individual desires to create some product or service of his own. Rather, the explanation takes into account the proximal environmental influence of the glass ceiling syndrome, which may compel one to afford the choice or opportunity for entrepreneurship.

Studies have consistently demonstrated that individuals with a strong entrepreneurial career anchor are more likely to have higher entrepreneurial career aspirations (DeNoble, Erez, & Schminke, 2014; Thompson & Byrne, 2019). Career anchor, defined as an individual's internalized set of values, beliefs, and motivations guiding their career decisions (Schein, 1978), plays a crucial role in shaping entrepreneurial intentions. Individuals with an entrepreneurial career anchor are driven by a desire for autonomy, innovation, and financial success, aligning with the entrepreneurial path (Kuratko, 2005). Research has also shown that career anchor is a significant predictor of entrepreneurial intentions, even when considering other factors like self-efficacy and risk tolerance (Thompson & Byrne, 2019). Moreover, career anchor influences an individual's ability to recognize and capitalize on entrepreneurial opportunities (DeNoble et al., 2014).

The concept of career anchor, introduced by (Schein et al., 1990), recognizes that individuals shape their careers based on their self-perceived competencies, values, and needs, making it a crucial aspect of career development literature. Despite its significance, research on the direct link between career anchors and entrepreneurial career choice intentions has been scarce until recently. As noted by Saif (2022), career anchors have been overlooked as predictors of entrepreneurial behaviour, with only one study by (S. H. Lee & Wong, 2004) exploring the relationship between career anchors and entrepreneurial intentions. Saif emphasizes the importance of investigating career anchors' role in predicting entrepreneurial behaviour, as they significantly influence individual career choices, which may otherwise lead to alternative professional paths. This implies that human behaviour is deeply influenced by certain types of career anchors. Hence, the career anchor of employees may be a useful psychological attribute to augment career development efforts and make career planning more effective.

In the past research, there is gap in the literature to investigate the role of career anchor in the domain of entrepreneurship (Haroon, 2020). In the given study, relationship of multifarious anchors with entrepreneurial behavior have been studied including technical, managerial, autonomy, entrepreneurial, pure challenge, sense of service, lifestyle and security anchors. Individuals with anchor of high entrepreneurship possess great motivation to produce new ideas, services or venture

and it becomes imperative to display their ingenuity that may lead to accomplishment. Only one study of (S. H. Lee & Wong, 2004) found a negative effect of stability anchor on entrepreneurial intentions. In this study, combined effect of career anchors on entrepreneurial career choice intentions has been focused. It is perceived that persons with entrepreneurial anchor possess great inclination to produce new items, services or new business and it is utmost important that such persons exhibit their imagination which paves way for achievement (Costigan, Gurbuz, & Sigri, 2018). Career anchor of a person suggests a certain career which matches his/ her values or interests. As regards to entrepreneurial career choice intentions, the decision is greatly influenced by his/ her career anchor it acts as driver limiting the options of job choices and decisions (S. H. Lee & Wong, 2004; Schein, 1978).

Hypothesis 3c. Career Anchor is positively related to Entrepreneurial Career Choice Intentions.

2.2.10 Entrepreneurial Self-Efficacy and Entrepreneurial Career Choice Intentions

Self-efficacy, a vital human agency, plays a crucial role in shaping an individual's life circumstances (Bandura, 1997). Previous research has highlighted psychological factors like motivation, particularly entrepreneurial self-efficacy (Chen et al., 1998; Gielnik, Bledow, & Stark, 2020), and prior experience (To et al., 2020) as key drivers of entrepreneurial intentions. Entrepreneurial self-efficacy refers to an individual's belief in their ability to perform various entrepreneurial tasks and roles effectively. Individuals with high entrepreneurial self-efficacy tend to: (1) perceive opportunities rather than risks in their environment, (2) trust in their ability to achieve goals, and (3) believe they are unlikely to fail (McShane, n.d.). Moreover, individuals with high entrepreneurial self-efficacy are more likely to take on challenging tasks that others might avoid (Chinyamurindi & Shava, 2019).

Past research has shown that entrepreneurial self-efficacy and entrepreneurial career choice intentions are positively related. Some of the findings are: 1) Entrepreneurial self-efficacy is a significant predictor of entrepreneurial career

choice intentions ([Ahmed et al., 2019](#)), (2) Individuals with higher entrepreneurial self-efficacy tend to have stronger entrepreneurial career aspirations ([Rahman et al., 2019](#)), (3) Entrepreneurial self-efficacy plays a mediating role in the relationship between career adaptability and entrepreneurial career choice intentions ([Tolentino et al., 2017](#)), (4) Enhancing entrepreneurial self-efficacy leads to higher entrepreneurial career aspirations, which in turn contributes to greater entrepreneurial success ([Tolentino et al., 2017](#)), (5) The relationship between entrepreneurial self-efficacy and entrepreneurial career aspirations is influenced by gender and career experience, suggesting that personal and professional factors moderate this relationship ([Sieger, Gruber, Fauchart, & Zellweger, 2015](#)).

The research on entrepreneurial self-efficacy is mainly based on social cognitive theory and theory of planned behavior. Both theories explain the materialization of entrepreneurial intentions and actions ([Srimulyani & Hermanto, 2021](#)). As per given research, entrepreneurial self-efficacy is the confidence on self that individuals maintain to succeed in conducting entrepreneurship tasks or roles. It is postulated that greater the entrepreneurial self-efficacy, the greater is the success of business or venture, because entrepreneurs maintain the requisite confidence, drive and trust in themselves to undertake entrepreneurial tasks under dynamic conditions. Entrepreneurial self-belief, self-knowledge, intent, skills, experience and resources are essentially required to start a venture ([Neneh, 2020](#)). Entrepreneurial self-efficacy offers a fundamental precondition for entrepreneurial intentions and assessment of a persons' power to achieve entrepreneurial goal ([L. Lee, Wong, Der Foo, & Leung, 2011](#)).

Extensive research has investigated the relationship between entrepreneurial self-efficacy and Entrepreneurial Career Choice Intentions. [Newman et al. \(2019\)](#) linked entrepreneurial self-efficacy to the broader concept of self-efficacy, rooted in social cognitive theory. In this context, entrepreneurial self-efficacy is essential for enabling entrepreneurial action. According to ([Bandura & Walters, 1977](#)), individuals need to believe in their capabilities to achieve their goals successfully. [Baum and Locke \(2004\)](#) emphasized the importance of self-efficacy for entrepreneurs, who often face challenging situations that require self-confidence to persevere.

(Kickul & D'Intino, 2005) and (Murwani et al., 2017) developed measures of entrepreneurial self-efficacy, including skills such as planning a new business, generating innovative ideas, identifying market opportunities, and growing a successful enterprise.

Hypothesis 4a. Entrepreneurial Self-Efficacy is positively related to Entrepreneurial Career Choice Intentions of female employees.

2.2.11 Psychological Empowerment and Entrepreneurial Career Choice Intentions

Pulitzer (1995) defined psychological empowerment as a heightened intrinsic motivation to take an active approach to one's work role, rather than a passive one. Entrepreneurship is driven by both intrinsic and extrinsic motivations (Bénabou & Tirole, 2003; Deci, Connell, & Ryan, 1989; Ryan & Deci, 2000), leading to goal-directed behaviour and empowering individuals to strive for achievement. The desire for personal fulfilment fuels the willingness to engage in entrepreneurial activities (Haivas, Hofmans, & Pepermans, 2013). Research has also shown that psychological empowerment influences creativity (Zhang & Bartol, 2010), innovative behaviour (Spreitzer et al., 1999), and employee career success (Dust et al., 2018). Moreover, Sengar, Chaudhary, Pande, and Rangnekar (2020) recently found a positive relationship between psychological empowerment, cognitive perception, and entrepreneurial behaviour in the workplace, highlighting its impact on intrapreneurial activities.

Past research has shown that psychological empowerment and entrepreneurial career choice intentions are positively related. Some of the findings are: (1) Psychological empowerment is a significant predictor of entrepreneurial career choice intentions (Ahmed et al., 2019), (2) Individuals with higher levels of psychological empowerment tend to have stronger entrepreneurial career aspirations (Rahman et al., 2019), (3) Enhancing psychological empowerment leads to higher entrepreneurial career aspirations, which in turn contributes to greater entrepreneurial success (Tolentino et al., 2017), (4) The relationship between psychological empowerment and entrepreneurial career aspirations is influenced by gender and career

experience, suggesting that personal and professional factors moderate this relationship (Sieger et al., 2015), and (5) Psychological empowerment has a positive impact on entrepreneurial self-efficacy, which in turn boosts entrepreneurial career aspirations (Chen et al., 1998).

This study reflects the experiences of professional women and minorities who face or anticipate career advancement barriers due to the glass ceiling in their organizations. Empowerment has been linked to entrepreneurship in various studies focusing on underprivileged groups (O'CONNOR & Ramos, 2006). Research suggests that entrepreneurs' perception of uncertainty and willingness to accept it are crucial factors distinguishing entrepreneurial action from inaction (Garrett & Holland, 2015; Jafari Sadeghi, Biancone, Giacomini, & Secinaro, 2018; McKelvie, Haynie, & Gustavsson, 2011). Empowerment is vital, as it encourages individuals to tap into their innovative potential and take initiative (Kuratko, Ireland, & Hornsby, 2001; Venkataraman, 2019). By fostering intrinsic motivation, empowerment promotes entrepreneurial behaviour (Eylon & Bamberger, 2000). Therefore, cultivating empowerment is essential to overcome obstacles and enable entrepreneurial behaviours.

In addition, many studies have explored the effect of psychological empowerment on the business performance and success and show varying results (Sugiyanto, Perdhana, Rahmawati, & Ariefiantoro, 2021). (Chen et al., 1998) found the psychological empowerment has no effect on performance. Contrary to this, few researches have found that psychological empowerment has an effect on performance (Chiang & Hsieh, 2012), (Wallace, Johnson, Mathe, & Paul, 2011). It has been also proved in the recent research that individuals who are fully empowered are able to actively undertake duties, regulate energy and zeal without taking into consideration its rewards (Henao-Zapata & Peiró, 2018). The researcher opine that proactive behavior of individuals leads to higher degree of innovation, enhanced career success, task performance and leadership efficiency and success; all contributing to organizational development (Batistič, Černe, Kaše, & Zupic, 2016).

Hypothesis 4b. Psychological Empowerment is positively related to Entrepreneurial Career Choice Intentions of female employees.

2.2.12 Mediation of Entrepreneurial Self-Efficacy between Employee Work Volition, Career Adaptability, Career Anchor and Entrepreneurial Career Choice Intentions

Bandura's Social Cognitive Theory (1986) emphasizes the crucial mediating role of self-efficacy in predicting behaviours. Building on this, Social Cognitive Career Theory ([Lent et al., 1994](#)) identifies self-efficacy as a vital mediator between learning experiences and career choice intentions. In the entrepreneurial field, self-efficacy has been adapted as entrepreneurial self-efficacy ([Zellweger, Sieger, & Halter, 2011](#)), which is essential for building beliefs and abilities to successfully launch a venture ([McGee et al., 2009](#)). Psychological empowerment is closely related to the Job Characteristics Model and self-efficacy, with the motivational construct of psychological empowerment rooted in self-governing, distinct, and mutually supporting attributes, including competency, which is equivalent to the sense of confidence or self-efficacy.

Entrepreneurial Self-Efficacy has emerged as a crucial psychological construct in entrepreneurship research ([Miao et al., 2017](#)). The significant mediating role of entrepreneurial self-efficacy demonstrates the substantial contribution of Social Cognitive Career Theory, Theory of Planned Behavior, and Entrepreneurship Career Development Theory in translating career development into reality ([Darmanto & Yuliari, 2018](#)). Entrepreneurial Self-Efficacy is deemed a key predictor of entrepreneurial interest, and it profoundly influences entrepreneurship intentions and the decision to become an entrepreneur ([Boyd & Vozikis, 1994](#); [Krueger et al., 2000](#); [Zhao et al., 2005](#); [Pihie & Bagheri, 2011](#); [Barbosa et al., 2007](#); [Ayodele, 2013](#)).

As per the findings of recent research on the mediation of self-efficacy on entrepreneurial intentions, females possess lower entrepreneurial self-efficacy and entrepreneurial intentions as compared to men ([Ciuchta & Finch, 2019](#)). As per their findings, few females may not be able to turn self-efficacy into intentions owing to reasons such as discrimination. The initial experience is likely to be not

pronounced for females than for males, however afterwards females display similar attitudes regarding entrepreneurship as that of males. The overall results of the study reflect positive effect of entrepreneurial self-efficacy on entrepreneurial intentions and proves to be an indicator which provides great confidence to start the business or venture.

As per (Darmanto & Yuliari, 2018), self-efficacy is a variable which offers most influence on the entrepreneurial intentions or someone who decides to undertake entrepreneurship on the basis of credence in his ability to do entrepreneurial venture. In addition, other researchers have found positive effect of entrepreneurial self-efficacy on the entrepreneurial intentions (Ayodele, 2013; Shinnar et al., 2014). In general, the significant mediating role of entrepreneurial self-efficacy reflect a major contribution of Social Cognitive Theory, Theory of Planned behavior and Entrepreneurship Career Development Theory (Darmanto & Yuliari, 2018).

Previous research has consistently shown that entrepreneurial self-efficacy plays a positive mediating role in various relationships, including: (1) Between learning experiences and future career choices (Lent et al., 1994), (2) Between propensity, entrepreneurial learning, and entrepreneurial intention (Zhao et al., 2005), (3) Between entrepreneurship education and entrepreneurial intentions (Oyugi, 2015), (4) Between contextual factors (locus of control, entrepreneurial knowledge) and entrepreneurial intentions and behaviour (Darmanto & Yuliari, 2018), and (5) Between job challenges and work engagement (Rai, Kumar, & Srivastava, 2020). Moreover, Krueger Jr (2000) and (Scherer, Adams, Carley, & Wiebe, 1989) found that vicarious learning only influences entrepreneurial intentions when self-efficacy is affected. However, despite its significance, entrepreneurial self-efficacy has received limited attention in the literature as a mediating mechanism for psychological empowerment

Hypothesis 5a. Entrepreneurial Self-Efficacy mediates the relationship between Employee Work Volition and Entrepreneurial Career Choice Intentions of female employees.

Hypothesis 5b. Entrepreneurial Self-Efficacy mediates the relationship between Career Adaptability and Entrepreneurial Career Choice

Intentions of female employees.

Hypothesis 5c. Entrepreneurial Self-Efficacy mediates the relationship between Career Anchor and Entrepreneurial Career Choice Intentions of female employees.

2.2.13 Mediation of Psychological Empowerment between Employee Work Volition, Career Adaptability, Career Anchor and Entrepreneurial Career Choice Intentions

Recent studies have revealed that psychological empowerment plays a positive mediating role in various relationships, including (1) The link between empowering leadership behaviour and work engagement ([Atoum, Alhussami, & Rayan, 2018](#)), (2) The connection between work flexibility and job satisfaction ([Yaghi, 2016](#)), (3) The association between person-organization fit and innovative work behaviour ([Ahmed et al., 2023](#)), (4) The relationship between dialogical leadership and organizational excellence ([Ahmed et al., 2023](#)), and (5) The link between ethical leadership, employee morale identity, and employee success ([Dust et al., 2018](#)).

These findings highlight the importance of psychological empowerment as a mediating factor in various workplace dynamics. As highlighted earlier, many studies have reported fewer or more direct relationships between employee work volition, career adaptability, career anchor, psychological empowerment and entrepreneurial career choice intentions. However, the mediating relationship of psychological empowerment between selected constructs of the study and entrepreneurial career choice intentions is negligible. According to Social Cognitive Career Theory, in addition to self-efficacy, “outcome expectations can assist as another mediator in amplification of the mechanism between learning experiences and choice behaviours related to careers” ([Wang, Wang, & Chen, 2018](#)).

In this study, it is believed that this association between predictor variables (employee work volition, career adaptability, career anchor) and outcome variable entrepreneurial career choice intentions is mediated by psychological empowerment,

taken as outcome expectation of entrepreneurial self-efficacy as per theoretical framework. When employees inherit stronger work volition or will to make occupational choices or decisions besides the constraints (Duffy et al., 2015), employees 'will' gets strengthened and they get psychologically empowered to overcome barriers and can capitalize it for future career opportunities or job roles. Similarly, the positive outcomes of career adaption are great as it leads to cognitive flexibility and openness to alternative perspectives adding to resilience or empowerment of an employee to opt for entrepreneurship as a career choice. Career Anchor encourages employees to utilize their intrinsic motivation as per their competencies, motives, values or needs (Schein & Van Maanen, 2013, 2013). Mediation of psychological empowerment for making entrepreneurial career choice intentions will have a positive impact, especially once employees have to decide to move from one employment opportunity to another.

Hypothesis 6a. Psychological Empowerment mediates the relationship between Employee Work Volition and Entrepreneurial Career Choice Intentions of female employees.

Hypothesis 6b. Psychological Empowerment mediates the relationship between Career Adaptability and Entrepreneurial Career Choice Intentions of female employees.

Hypothesis 6c. Psychological Empowerment mediates the relationship between Career Anchor and Entrepreneurial Career Choice Intentions of female employees.

2.2.14 Moderation of Glass Ceiling Syndrome between Entrepreneurial Self-Efficacy and Entrepreneurial Career Choice Intentions

According to Zhao et al. (2005), individuals with high self-efficacy tend to exhibit resilience and perseverance, persisting in the face of adversity or unfavorable circumstances and demonstrating greater patience and determination. Additionally, such people tend to actively seek means of overcoming such challenges. Bandura

(1997) and Baron et al. (2016) regard that few of such people have a habit of seeking challenging opportunities.

It has been concluded in recent research that female professionals try to invest resources to rise in the career to fight or override barriers or obstacles, however, this effort is found ineffective (Babic & Hansez, 2021). The resources include access to information, social support, feedback of performance, promotion or growth opportunity, coaching by supervisors, professional advice or consultation. The study refers to the loss of resource investment as a spiral effect, as a result of which more and more resources are lost.

In past studies, the impact of glass ceiling syndrome has been studied on multifarious outcomes in the presence of numerous moderating mechanisms. Bombuwela & Chamaru (2013) have researched glass ceiling factors of individual, family, organizational, and cultural on women's career development with the moderating role of environmental factors. Research by Khalid & Ayub (2017) examined how beliefs about the glass ceiling affect women's career satisfaction, with occupational self-efficacy playing a moderating role. As per scholar's knowledge, the study of past literature reveals that the glass ceiling syndrome is yet to be tested in a moderation role. In the current study, the glass ceiling syndrome has been considered as a proximal environmental influencer, which may create hurdles or barriers for female employees. It is perceived that female professionals perceiving glass ceiling syndrome will feel less satisfied with the job and may have intentions to quit and opt for entrepreneurship as an alternative career choice.

Hence, the moderating effect of glass ceiling syndrome between entrepreneurial self-efficacy and entrepreneurial career choice intentions is hypothesized, wherein; glass ceiling syndrome is expected to strengthen the choice action of female employees to become entrepreneurs.

Hypothesis 7a. Glass Ceiling Syndrome will moderate the relationship between Entrepreneurial Self-Efficacy and Entrepreneurial Career Choice Intentions, such that the relationship will be stronger for female employees with a higher perception of Glass Ceiling Syndrome of female employees.

2.2.15 Moderation of Glass Ceiling Syndrome between Psychological Empowerment and Entrepreneurial Career Choice Intentions

Choi & Kim (2021) referred to past studies on women pushed towards self-employment due to likely experience of discrimination, such as the glass ceiling. He argues that female professionals feel motivated or empowered to pursue entrepreneurship not only by push factors, such as workplace discrimination but also by pull factors, including their own professional skills and capabilities. As per scholar's knowledge, the study of past literature reveals that the glass ceiling syndrome is yet to be tested in a moderation role. Sharma & Kaur (2019) investigated the impact of the glass ceiling on women's work engagement, considering marital status as a moderating factor. Masood et al. (2021) studied the effects of women's glass-ceiling beliefs on turnover intentions and chose occupational self-efficacy as the moderator. It is important to know what significantly motivates or empowers professional females to decide to leave traditional organizations and opt for entrepreneurship as a career choice.

By considering the moderating role of glass ceiling syndrome, researchers can gain a deeper understanding of how entrepreneurial career choice intentions are influenced by both individual-level factors and contextual factors. By addressing glass ceiling syndrome, organizations are expected to empower individuals to pursue entrepreneurial careers. It is considered that in the absence of glass ceiling barriers the empowerment effects can be enhanced, leading to increased entrepreneurial career choice intentions. Hence, the moderating effect of glass ceiling syndrome between psychological empowerment and entrepreneurial career choice intentions is hypothesized, wherein; glass ceiling syndrome is expected to strengthen the choice action of female employees to become entrepreneurs.

Hypothesis 7b. Glass Ceiling Syndrome will moderate the relationship between Psychological Empowerment and Entrepreneurial Career Choice Intentions, such that; the relationship will be stronger for female employees with a higher perception of Glass Ceiling Syndrome of female employees.

2.3 Research Model

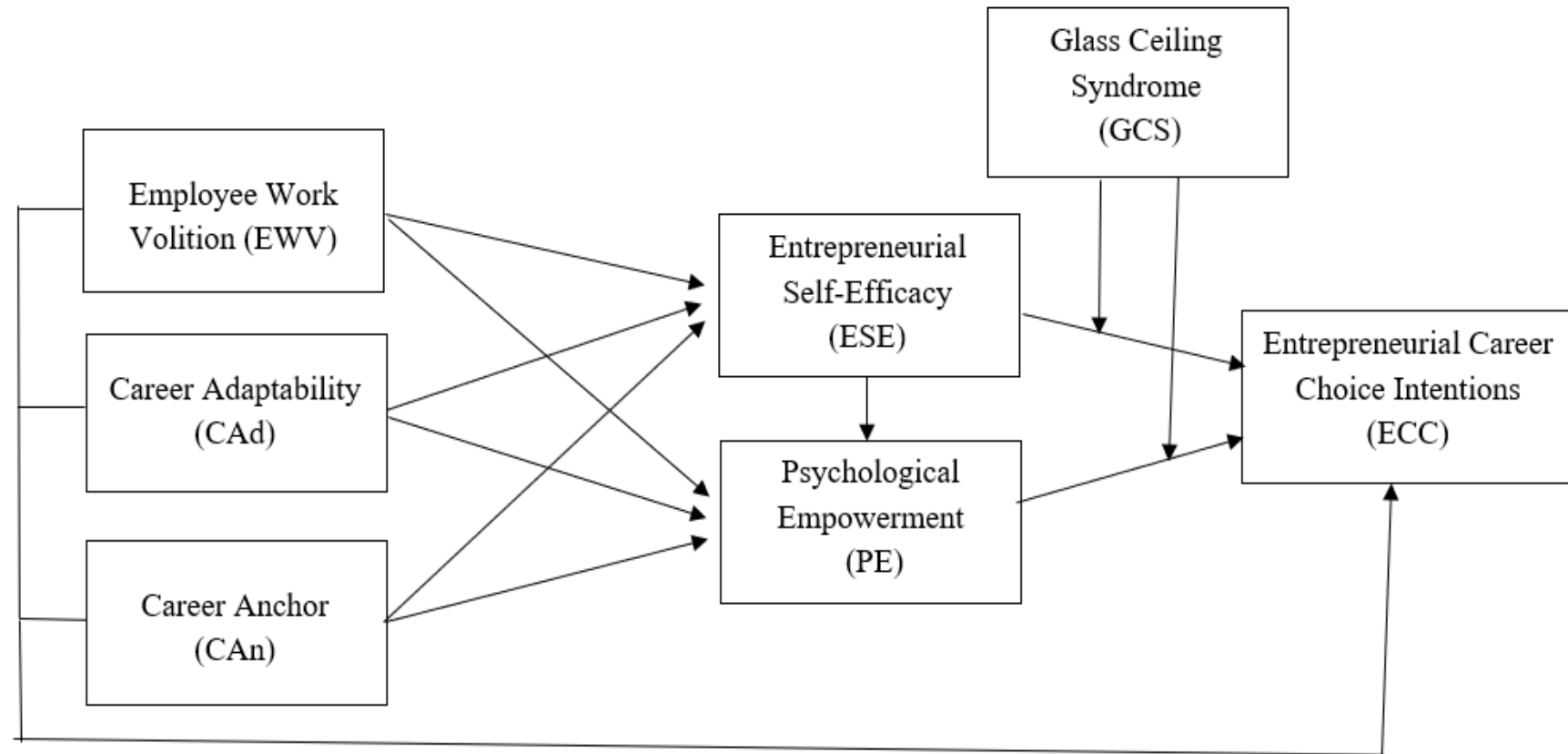


FIGURE 2.1: Theoretical Framework

2.4 Research Hypotheses

Hypothesis 1a. Employee Work Volition is positively related with Entrepreneurial Self-Efficacy of female employees.

Hypothesis 1b. Career Adaptability is positively related with Entrepreneurial Self-Efficacy of female employees.

Hypothesis 1c. Career Anchor is positively related with Entrepreneurial Self-Efficacy of female employees.

Hypothesis 2a. Employee Work Volition is positively related with Psychological Empowerment of female employees.

Hypothesis 2b. Career Adaptability is positively related with Psychological Empowerment of female employees.

Hypothesis 2c. Career Anchor is positively related with Psychological Empowerment of female employees.

Hypothesis 3a. Employee Work Volition is positively related with Entrepreneurial Career Choice Intentions of female employees.

Hypothesis 3b. Career Adaptability is positively related with Entrepreneurial Career Choice Intentions of female employees.

Hypothesis 3c. Career Anchor is positively related with Entrepreneurial Career Choice Intentions of female employees.

Hypothesis 4a. Entrepreneurial Self-Efficacy is positively related to Entrepreneurial Career Choice Intentions of female employees.

Hypothesis 4b. Psychological Empowerment is positively related to Entrepreneurial Career Choice Intentions of female employees.

Hypothesis 5a. Entrepreneurial Self-Efficacy mediates the relationship between Employee Work Volition and Entrepreneurial Career Choice Intentions.

Hypothesis 5b. Entrepreneurial Self-Efficacy mediates the relationship between Career Adaptability and Entrepreneurial Career Choice Intentions of female employees.

Hypothesis 5c. Entrepreneurial Self-Efficacy mediates the relationship between Career Anchor and Entrepreneurial Career Choice Intentions of female employees.

Hypothesis 6a. Psychological Empowerment mediates the relationship between Employee Work Volition and Entrepreneurial Career Choice Intentions of female employees.

Hypothesis 6b. Psychological Empowerment mediates the relationship between Career Adaptability and Entrepreneurial Career Choice Intentions of female employees.

Hypothesis 6c. Psychological Empowerment mediates the relationship between Career Anchor and Entrepreneurial Career Choice Intentions of female employees.

Hypothesis 7a. Glass Ceiling Syndrome will moderate the relationship between Entrepreneurial Self-Efficacy and Entrepreneurial Career Choice Intentions, such that; the relationship will be stronger for female employees with a higher perception of Glass Ceiling Syndrome.

Hypothesis 7b. Glass Ceiling Syndrome will moderate the relationship between Psychological Empowerment and Entrepreneurial Career Choice Intentions, such that; the relationship will be stronger for female employees with a higher perception of Glass Ceiling Syndrome.

Chapter 3

Research Methodology

This chapter outlines the research design and methods employed in the present investigation, providing a detailed account of the approach used to collect and analyze data. In section 3.1 of the chapter, research design is given which includes the type of study in Section 3.1.1, study settings in Section 3.1.2, unit of analysis in Section 3.1.3, time horizon in Section 3.1.4, population in Section 3.1.5, sampling technique in Section 3.1.6 and sample in Section 3.1.7.

In section 3.2 of the chapter, measurements of various variables are stated to include employee work volition in Section 3.2.1, career adaptability in Section 3.2.2, career anchor in Section 3.2.3, entrepreneurial self-efficacy in Section 3.2.4, psychological empowerment in Section 3.2.5, glass ceiling syndrome in Section 3.2.6, entrepreneurial career choice intentions in Section 3.2.7. Subsequently, section 3.3 of the chapter highlights data collection and management, including procedures in Section 3.3.1, data collection in Section 3.3.2, and time lags in Section 3.3.3. In Section 3.4, pilot study testing alongside its results are reflected in section 3.4.1 and sample characteristics are reflected in section 3.5. At the end of the chapter, statistical analysis tools and techniques are given in section 3.6.

3.1 Research Design

Research design refers to the deliberate arrangement of strategies and methods for gathering and interpreting data, aiming to strike a balance between achieving

the research objectives and optimizing efficiency and resources (Sekaran, 2003; Terre Blanche & Durrheim, 1999). Based on the evidence collected, it helps researchers to get the answers to research questions. If the research design is good, it is expected to offer good outcomes for the study. Similarly, a good research design aids scholars to understand, and interpret the findings and assist in obtaining reliable findings (Wiersma, 1976). Hence, plenty of insight into Saunder's Research Onion was gathered before finalizing the research design (Saunder et al., 2007).

It has been established that the predominant research design in vogue since the nineteenth century has been quantitative due to its standardized tools and procedures and it can generate reliable and validated data (De Vaus, 2001). This thesis aims to discover the relationship between various variables in the framework of private services sector organizations in major cities across Pakistan. Hence, the self-administered as well as online questionnaires were used which helped in gathering data in a shorter timeframe. Further details of the research design are covered in various sub-sections below.

3.1.1 The Research Onion

Saunder's research onion gives a good insight to researchers regarding a decision to develop the research methodology. It is a widely used framework in research methodology, developed by Mark Saunders. It's a layered approach to designing and conducting research, helping researchers to systematically plan and execute their studies. By working through each layer, researchers can ensure a rigorous and well-planned approach to their study, increasing the validity and reliability of their findings. The research onion has provided a comprehensive framework for the current study, offering a spectrum of options that span from broad, high-level considerations to practical, tactical details. This framework enables a holistic approach to research design and methodology, allowing for a thorough and integrated understanding of the research process.

The onion has seven layers: (1) Define the research question or topic, (2) Determine the purpose of the study (exploratory, descriptive or explanatory), (3) Choose an appropriate research approach or strategy (qualitative, quantitative,

mixed-methods), (4) Select the research choice including research design, data collection methods, and sampling strategy, (5) Decide on data analysis techniques and procedures, (6) Consider the resource constraints and timeframe for the study, (7) Ensure ethical guidelines and considerations are followed, and necessary approvals are obtained. From the six layers of Saunderson's research onion, researchers peel one at a time to develop their research methodology.

The foundation of this study is established at Layer 1, which encompasses the research philosophy that underpins the entire investigation. This philosophical basis defines the underlying beliefs and assumptions that shape the research and is characterized by two interconnected aspects: ontology (which explores the nature of reality and what can be known) and epistemology (which examines how knowledge can be acquired and validated). Three primary research philosophies shape ontological and epistemological assumptions: positivism, interpretivism, and pragmatism. Positivists approach knowledge as either true, false, or lacking meaning. In contrast, interpretivists emphasize understanding human experiences and perceptions within a socio-cultural context. Pragmatists, on the other hand, prioritize selecting the most effective methods to investigate a phenomenon, regardless of philosophical biases. In the current study, positivist philosophy is being adopted. Layer 2 represents the research approach, which defines the overall methodological framework used to conduct the study. This layer involves either an inductive or deductive approach. The inductive approach involves generating theories from the research data, rather than starting with a preconceived theory. This approach is particularly useful in areas with limited existing knowledge, allowing for the discovery of new information and the formation of theories. In contrast, the deductive approach begins with an established theory, which is then built upon or tested through research. This approach is commonly used when investigating phenomena that are rooted in existing knowledge, such as evolutionary changes, and seeks to refine or expand upon the existing body of knowledge.

The research approaches are closely tied to the methods of data collection and analysis, namely qualitative and quantitative research. Qualitative research explores textual, visual, or audio data, while quantitative research focuses on numerical data. The inductive approach is often associated with qualitative research,

whereas quantitative research typically employs a deductive approach, rooted in positivist philosophy. In this study, we have adopted a deductive approach, as it enables us to build upon existing theories and test hypotheses. By applying Social Cognitive Career Theory (SCCT) in the context of Pakistani culture and private service sector organizations, it aims to determine how well the selected constructs fit within the framework of the theory.

Layer 3 of the research onion involves establishing the conceptual and intangible aspects of the study, which is referred to as the research strategy or research design. This layer encompasses various approaches, including (1) Experimental research, which examines the relationship between variables in a controlled environment to test existing theories; (2) Action research, which explores practical problems in natural settings to understand real-world interactions; (3) Case study research, which involves an in-depth examination of a single subject to gain detailed insights into a specific context; (4) Grounded theory, which aims to develop a new theory or model through data analysis; (5) Ethnography, which involves observing people in their natural environment to gain insights into cultural interactions; and (6) Archival research, which involves analyzing existing data or documents. The current study employs action research, which enables the exploration of real-world problems and interactions in a practical setting.

Layer 4, termed 'Choices', determines the diversity of data types employed in the research, encompassing mono, mixed, and multi-method approaches. Mono-method research relies on a single data type, either qualitative or quantitative. Mixed-method research combines both qualitative and quantitative data, while multi-method research incorporates a broader range of approaches, such as combining thematic and content analysis (qualitative) with a quantitative method. Layer 5, the 'Time Horizon', determines the duration of data collection, with options for cross-sectional (single point in time) or time-lagged approaches. Time-lagged studies often involve only two data points, with a specific time lag between them. In this study, a time-lagged approach was adopted, which helps in establishing the causal relationship between variables.

The final layer 6 is of techniques and procedures. It enables researchers to make decisions regarding what data is to be collected, what are the data collection

methods, and the sampling of the population (convenient, random, or snowball). Additionally, choose the suitable data analysis method to answer the research questions, either correlation analysis to investigate associations between variables or content analysis to identify patterns and themes in textual data. Further, setting up of material for the study including write up of questions for survey or interview. In short, the researcher decides what data to collect, and how to sample and analyze. In the current study, convenient sampling, correlation analysis, and survey technique through physical and online questionnaires have been adopted.

3.1.2 Type of Study

This study utilizes quantitative research, one of the two primary research approaches, with the other being qualitative research. According to [De Alwis and Bombuwela \(2013\)](#), quantitative research offers superior reliability, consistency, and effectiveness. [Chase, Teel, Thornton-Chase, and Manfredo \(2016\)](#) also emphasize the quantitative design's ability to yield authentic results. This study leverages quantitative data to examine the relationships between selected variables, collecting data through survey research. Surveys can take various forms, including online surveys, self-administered questionnaires, and phone interviews ([Creswell & Creswell, 2017](#)). The current study applies the technique of both self-administered as well as online questionnaires.

This study investigates how cognitive psychological factors (employee work volition, career adaptability, and career anchor) interact to influence entrepreneurial career choice intentions, with Entrepreneurial Self-Efficacy and Psychological Empowerment acting as mediating mechanisms to facilitate this process. It also weighs mediation effects of glass ceiling syndrome (as proximal environment influence/ barrier) in the overall settings of Social Cognitive Career Theory. This research is an explanatory study, that aims to investigate and explain the causal relationships or links between variables, typically by examining the effects of interventions, to answer research questions and provide insights into the underlying mechanisms ([Baxter & Wright, 2000](#)). An explanatory study is carried out if certain phenomenon is required to be explained comprehensively.

3.1.3 Study Setting

This study uses closed and structured surveys. Using the survey method, the current has been conducted, for which respondents of organizations were contacted on the ground. The organizations were various private entities of service sectors (universities, colleges, schools, technical institutes, banks, financial and legal institutions, IT companies, hospitals, hotels, construction, and estate agencies covering a wide geographic area, this research encompasses several major cities in Pakistan, namely Islamabad, Rawalpindi, Lahore, Peshawar, Karachi, Multan, and Quetta, representing various regions of the country.

The selected service sector organizations possessed their peculiar characteristics and socio-economic and cultural environment. The target population was female employees offering their services in these sectors. Furthermore, online responses to the questionnaire have been gathered from the female employees. Confidentiality of the data input was assured and respondents were encouraged to share their honest responses. This study was conducted in everyday, real-life settings, free from artificial manipulation or interference by the researcher, enabling a genuine and unobtrusive exploration of the research questions.

3.1.4 Unit of Analysis

The unit of analysis in research refers to the entity or level at which data is collected and analyzed. Unit of analysis usually includes individuals, groups, organizations or industries, cultures and countries; about whom researchers collect data and make useful analyses of the characteristics, to arrive at definite results. It is the basic component of the study that is being investigated or observed. The unit of analysis is selected based on the research question and objectives. Selecting the appropriate unit of analysis is crucial, as it determines the level of data collection and analysis, and ultimately, the conclusions that can be drawn from the study. In this study, the unit of analysis is individuals (female employees).

Keeping in view the scope of the study, there were various cultural, and socio-economic reasons to select female employees of the private services sector organization of Pakistan as the unit of analysis. It includes: (1) Significant gender

disparity and inequality including glass ceiling syndrome, (2) In the socio-cultural context, Pakistani society is largely patriarchal, and women's experiences and perspectives could provide valuable insights into their lives and challenges, (3) Females have lower literacy rates and educational attainment than males in Pakistan and it is important to explore ways to promote their uplift and empowerment, (4) Limited economic participation of females in Pakistan urge to investigate strategies to enhance female entrepreneurship, employment, and economic independence, (5) Underrepresentation and participation of females in senior leadership and decision making positions, (6) The demographic characteristics of Pakistan reveal a large and growing female population. Research on females can provide insights into their specific needs, preferences, and behaviours.

3.1.5 Time Horizon

This study is longitudinal and aims to segregate the data in various time intervals for the time being. A longitudinal study is a research design that involves the repeated collection of data from the same group of participants over an extended period, spanning months or even years, allowing for the examination of changes, developments, and patterns over time. This design allows researchers to examine changes and developments over time, identify patterns and trends, establish cause-and-effect relationships, collect data on the same variables repeatedly, and analyze individual differences and trajectories.

Time-lagged studies offer certain benefits to the researchers. First, it offers a rich and in-depth understanding of the research context and participants. Second, time-lagged designs enable researchers to establish causal relationships between variables. Third, by analyzing patterns and trends, researchers can make predictions about future outcomes. Fourth, time-lagged studies consider the historical and cultural context in which the research takes place. Fifth, the findings can be generalized to similar populations and contexts. Sixth, it reduces bias by controlling for individual differences and extraneous variables. Seventh, time-lagged designs enhance validity by measuring changes over time. Eighth, it provides valuable insights into human development, growth, and change.

In the current study, the data will be collected in three-time lags. In the first leg, employees were asked to answer about employee work volition, career adaptability, and career anchor. After sixty days, in the second lag, employees responded about entrepreneurial self-efficacy and psychological empowerment. In the third leg, after another sixty days, employees were again approached to respond about glass ceiling syndrome and entrepreneurial career choice intentions. The data for this study's model was gathered from a range of private sector service organizations in Pakistan over six months, with a time-lagged design that allowed for the collection of data at different points in time, enabling the capture of temporal effects and dynamics.

3.1.6 Population

According to [Sekaran \(2003\)](#), a population refers to the specific group of individuals, events, or phenomena that a researcher aims to study and investigate, encompassing the entire scope of the research inquiry. Due to constraints of time, resources, and study design, it was not possible to study the entire population. Hence, it was rather opted to draw a sample from selected service sector private organizations situated across four main cities of Pakistan. In the private sector of Pakistan, the female workforce mainly works in the agricultural, industrial and services sectors. In the current study, the sample size is approximately 450. The main sub-sectors of the target population were: IT, banking and education. In addition, females from other private services sectors also participated in the survey including construction or estate, tourism, hotel industry, manufacturing, engineering, legal and financial enterprises. It is important to assess the importance of the selected population offering services in the private sector in Pakistan. As regards to characteristics of the IT industry, it has a talented youth and a promising future. There are more than 1500 companies and approximately 10,000 professionals are joining the sector each year. The industry is presently offering services in web design and development, digital marketing, branding, IT, software and AI solutions, and digital transformation. In addition, mobile app development services and e-commerce solutions are part of it.

In the education service sector, it has witnessed significant growth in recent years. At present, the private education sector plays a key role in providing education services in Pakistan. It has emerged as a substantial service provider over the past three decades and makes up almost 43.8% of schools in Pakistan. The student's enrolment in these private institutions has risen dramatically since the 1990s and is fast gaining mass acceptance across various regions of Pakistan. In recent years, public-private partnerships have been effective in meeting the demand for education in Pakistan. Some private institutions are also offering additional services like study abroad programs, scholarships, personal statement assistance, visa facilitation, and professional training. In the services sector, private banks have made significant expansion and placement across all regions of Pakistan. Financial inclusion is one of the core themes, focusing on expanding banking services to the unbanked population. Digital banking and payment are becoming increasingly important. Private Banks are also focusing on enhancing customer experience through improved service quality, personalized banking, and streamlined processes. The private sector is experiencing a surge in credit growth and is rapidly embracing cutting-edge technologies like artificial intelligence, blockchain, and cloud computing to optimize efficiency, minimize costs, and deliver exceptional customer experiences.

It is perceived that testing the phenomenon of selected constructs will be more pertinent in private sector organizations. Further, a population sample from Pakistan was chosen due various reasons. First, the scholar has a good amount of access to Pakistani organizations situated in various cities. Second, Pakistani culture has high masculinity and entrepreneurial career choice intentions by women are considered the least preferred option. Third, due to gender discrimination and organizational hurdles including glass ceiling syndrome, the turnover of female employees in private organizations is perceived to be relatively high.

3.1.7 Sampling Technique

In management research, sampling techniques are employed to select a representative subset of individuals or cases from a larger population. The current study

had various sampling options, including: (1) Random sampling, where every population member has an equal chance of selection, (2) Stratified sampling, which involves dividing the population into subgroups and sampling from each, (3) Systematic sampling, where participants are selected at regular intervals from a list or population, and (4) Cluster sampling, which involves dividing the population into smaller groups and sampling from each cluster, (5) Quota sampling selects samples based on predetermined characteristics (e.g., age, gender), (6) Snowball sampling selects initial participants and asks them to refer others, (7) Convenient sampling in which participants are selected based on ease of access, (8) Judgmental Sampling selects participants based on researcher's expertise, (9) Purposive sampling selects participants based on specific criteria relevant to the research question, and (10) Theoretical Sampling in which participants are selected on the basis of theoretical considerations.

Each technique has advantages and disadvantages, and the choice depends on the research question, population, and resources. This research has utilized a non-probability sampling approach, specifically convenience sampling, for several reasons, including ease of access, time constraints, and feasibility. First, this technique offers ease of access, saving time and resources. Second, it is cost-effectiveness, as no additional costs are incurred to select participants being readily available. Third, this technique enables quick data collection, saving time and extends flexibility as researchers can easily modify the sample size or demographics as needed. Fourth, it helps to gain insights through exploratory research. Fifth, convenient sampling provides a practical solution with limited resources. Sixth, participants can be selected from a convenient location, such as a nearby bank, IT institution, university or community centre. Seventh, the convenient sampling allows for rapid data collection and analysis.

The choice of convenience sampling technique over other robust methods such as random or stratified sampling is due to certain considerations of this study. First is the lack of access/ availability of population listings of various regions across Pakistan. Second is time and cost constraints, as the data was required to be collected from distant places. Third, being exploratory, the focus of the study was to only get preliminary insights into the given phenomenon. Convenience sampling

certainly offered inherited constraints such as sampling bias and generalizability issues, which have been subsequently reflected in the limitations of the study.

3.1.8 Sample

This study has used a sample of female employees working in various sectors of private service organizations, which is considered an appropriate sample for research. Data was collected from junior, mid-tier/ middle, and senior female professionals. Data collection in prominent cities like Islamabad, Rawalpindi, Lahore, Peshawar, Karachi, Multan, and Quetta ensured a broader representation, thereby strengthening the generalizability and applicability of the research findings across various regions. Demographically, the breakdown of the sample was: (1) Varying age groups such as 16-25 years, 26-35 years, 36-45 years and 46 years and above, (2) Educational background such as Bachelor, Master, MPhil/ MS and PhD, (3) Employee of service sector organizations to include IT, Banking, Education and Miscellaneous (including legal, tourism, financial enterprises, tourism, hotel industry etc) (4) Task complexity or roles to include easy, routine, complex and challenging.

To start with, a location and sub-sector-wise list of potential service sector private organizations were prepared, followed by the identification of key or focal persons as well as professional contacts in these organizations. After gaining permission to conduct research, a list of employees was sought alongside details of their supervisors. Participants who consented to take part in the study were given questionnaires to complete. Accompanying the survey or online questionnaires was a cover letter that outlined the study's objectives, ensured the respondents of anonymity, and guaranteed the confidentiality of their responses.

This study adheres to ethical standards, ensuring participants' rights and dignity are respected. Informed consent was obtained, and confidentiality maintained through anonymous data collection and storage. It was ensured that respondents understood the purpose, risks, and benefits of the study. Participants were assured of confidentiality and anonymity, with all data collected and stored in a secure and encrypted manner. Participants' identities were protected, and data was stored

securely. Respondents were explained that they may refuse to participate at any stage during the data collection.

The sample size was determined based on statistical considerations and guidelines from previous research. Specifically, the GPower formula was employed, with a specified effect size of 0.05, a power of 0.90, and a single arrow pointing towards the endogenous construct. The GPower calculator indicated a minimum required sample size of 150, which was accordingly adopted for the study. Recently, the method of calculating sample size using G power has secured significant value in the research ([Muhammad et al., 2020](#)). By using G*Power to calculate sample size, researchers can ensure a well-designed study with adequate statistical power, increasing the validity, credibility, and impact of their research. In addition, using G*Power to calculate sample size demonstrates a rigorous approach to research design, enhancing the credibility of the study and its findings.

3.2 Measurements

The study employed a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), to measure all variables. Gender was coded as 1 (female) and 2 (male). Age was categorized as follows: 1 (18-25 years), 2 (26-35 years), 3 (36-45 years), and 4 (46 years and above). Education level was coded as 1 (bachelor's degree), 2 (master's degree), 3 (MPhil), and 4 (PhD). Employment duration was coded as: 1 (less than 2 years), 2 (2-5 years), 3 (6-11 years), 4 (12-17 years), and 5 (18 years and above). Regarding job complexity, 1 = easy, 2 = routine, 3 = challenging, and 4 = complex. The type of services sector was highlighted as 1 = IT, 2 = education, 3 = banking and 4 = other or miscellaneous. The responses were collected in three-times lags to avoid common method bias. The scales used were self-reported and employees of various service sector organizations recorded their viewpoints about given variables ([Kobe, Reiter-Palmon, & Rickers, 2001](#)). The responses were collected in three-times lags to avoid common method bias ([Podsakoff, MacKenzie, Lee, & Podsakoff, 2003](#)). Pertinent questionnaires were adopted to collect data from the target audiences.

3.2.1 Employee Work Volition

A modified version of the Work Volition scale, originally developed by (Duffy et al., 2012), was employed in this study. The scale comprises 14 items, but only 8 relevant items were selected for use here. Responses were rated on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Sample items include, “I’ve been able to choose the jobs I wanted”, “I feel that outside forces have limited my work and career options,” and “I feel able to change jobs if I want to.” The internal consistency of the scale, measured by Cronbach’s alpha, was 0.788, indicating a satisfactory level of reliability.

3.2.2 Career Adaptability

A modified version of the Career Adaptation scale, originally developed by the (Rottinghaus et al., 2005), was employed in this study. The scale consists of 11 items, assessing experiences related to career adaptability. Responses were rated on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Sample items include, “I can overcome potential barriers that may exist in my career”, “I am rarely in control of my career” and “I can adapt to change in my career plans”. The scale demonstrated high internal consistency, with a Cronbach’s alpha coefficient of 0.872, indicating excellent reliability.

3.2.3 Career Anchor

A modified version of Schein and Van Maanen (2013) Career Orientation Inventory was used in this study, incorporating 8 select items from the original 40-item Career Anchor scale. Participants responded using a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Sample items include, “I dream of a career in which I can solve problems or win in situations that are extremely challenging”, “The chance to do a job my own way, free of rules and constraints, is more important to me than security” and “I dream of a career that will permit me to integrate my personal, family, and work needs”. The scale demonstrated

high internal consistency, with a Cronbach's alpha coefficient of 0.843, indicating excellent reliability.

3.2.4 Entrepreneurial Self-Efficacy

A modified version of the Entrepreneurial Self-Efficacy (ESE) Scale, originally developed by (De Noble et al., 1999) and later adapted by Kickul and D'Intino (2005), was employed in this study. The original 35-item scale was truncated to 12 relevant items, which were rated on a 5-point Likert scale (1=strongly disagree to 5=strongly agree). Sample items include, "I can work productively under continuous stress, pressure and conflict", "I can identify and build management teams" and "I can develop a working environment that encourages people to try out something new". The scale demonstrated high internal consistency, with a Cronbach's alpha coefficient of 0.891, indicating excellent reliability.

3.2.5 Psychological Empowerment

A modified version of Spreitzer (1995, 1996) scale was employed to measure self-orientations towards work roles. The original 12-item scale was truncated to 8 relevant items, which were rated on a 5-point Likert scale (1=strongly disagree to 5=strongly agree). Sample items include, "I am confident about my ability to do my job", "I can decide on my own how to go about doing my work" and "I am self-assured about my capabilities to perform my work activities". The scale demonstrated high internal consistency, with a Cronbach's alpha coefficient of 0.893, indicating excellent reliability.

3.2.6 Glass Ceiling Syndrome

A modified version of the Glass Ceiling Syndrome scale, originally developed and validated by (Bazazo et al., 2017), was employed in this study. The scale consists of 7 items, assessing perceptions of career barriers and limitations. Responses were rated on a 5-point Likert scale (1=strongly disagree to 5=strongly agree). Sample items include, "I am not assigned to high visibility positions", "There are

few career opportunities for me” and “I am not given support to balance multiple roles”. The scale demonstrated acceptable internal consistency, with a Cronbach’s alpha coefficient of 0.749.

The first item of the given scale had a reverse question: “My work performance is fairly evaluated.” To adjust that in SPSS, reverse-coded items in the scale were recoded before analysis to ensure consistency. Responses were reversed i.e; Using Transform → Recode into different variables. After recording, frequencies were checked for accuracy, and the updated values were used in further analyses to maintain scale integrity.

3.2.7 Entrepreneurial Career Choice Intentions

A modified version of the entrepreneurial intention scale, originally developed by (Liñán & Chen, 2009), was employed in this study. The scale consists of 6 items, assessing an individual’s intention and determination to engage in entrepreneurial activities. Responses were rated on a 5-point Likert scale, ranging from 1 (minimum attraction/strongly disagree/strongly disapprove) to 5 (maximum attraction/strongly agree/highly approve). Sample items include, “I am ready to do anything to be an entrepreneur” and “I will make every effort to start and run my venture”, “I am determined to create a venture in the future”. The scale demonstrated high internal consistency, with a Cronbach’s alpha coefficient of 0.929, indicating excellent reliability.

3.3 Data Collection and Management

Female employees of private sector service organizations were contacted to collect data for the study. To mitigate the influence of social desirability bias, which can lead to respondents providing answers they perceive as socially acceptable rather than their genuine beliefs, this study employed a specific methodology to ensure accurate and unbiased responses. The research scholar approached the focal persons of service sub-sector organizations to gain access and authority to conduct

research. They were communicated about the purpose of the research and it was ensured that only willing female employees undertake the survey.

Certain key considerations and best practices for data collection and management during the current study were: (1) Ensure data privacy and confidentiality, (2) Using appropriate data collection tools, (3) Undertake data collection under a well-developed data management plan, (4) Store data securely and back up regularly, (5) Document data collection and management process, (6) Follow ethical guidelines for data collection and management, (6) No compromise on accuracy, reliability and good level of screening of data, leading to robust and meaningful for robust and research findings.

3.3.1 Procedures

A cover letter provided with a survey and online questionnaires was served to explain to the respondents the scope of the study and assure them that confidentiality will be maintained. For the online questionnaires, respondents were given the option to refuse to attempt the survey, if unwilling. The respondents were assured of providing findings of the study in exchange for input from them. The focal persons allowed the conduct of the survey only once they ensured that respondents fully understood the purpose of the research. The access to organizations was made sure through personal and peer contacts.

Data was collected from female employees only belonging to various private service sector organizations situated in major cities of Pakistan. The questionnaire was prepared in the English language, as it is the officially recognized medium of communication in both public and private sector organizations in Pakistan, ensuring widespread understanding and facilitating responses from a diverse range of participants. The authentic definition of each variable was written for easy understanding of the respondents. Further, both survey-based and online questionnaires were used which led to reliability in measuring variables and checking errors of measurements. There was support from top management of banks, education, IT, and miscellaneous service sector organizations. Besides, the professional networks of the researcher were fully utilized to reach the precise respondents.

3.3.2 Data Collection

While collecting data for this study, the procedure was designed with due consideration of reliability and rigour, as emphasized by (Aguinis, Cascio, & Ramani, 2021). The data was collected through personally administered survey-based questionnaires as well as online questionnaires. For both methods, selected focal persons of service sub-sector organizations were engaged to gain access and authority to conduct research. They were communicated about the purpose of the research and it was ensured that only willing female employees undertake the survey. A cover letter provided with a survey and online questionnaires was served to explain to the respondents the scope of the study and assure them that confidentiality will be maintained. For the online questionnaires, respondents were given the option to refuse to attempt the survey, if unwilling.

This study focused on collecting data from female employees working in various private service sector organizations located in major cities across Pakistan. To ensure clarity and accuracy, the questionnaire was prepared in English, which is the officially recognized language used for communication in both public and private sector organizations in Pakistan, and was distributed among female employees. The authentic definition of each variable was written for easy understanding of the respondents. Further, both survey-based and online questionnaires were used which led to reliability in measuring variables and checking errors of measurements. There was support from top management of banks, education, IT, and miscellaneous service sector organizations. Besides, the professional networks of the researcher were fully utilized to reach the precise respondents.

3.3.3 Time Lags

The data collection process was conducted in three-time lags or waves with four-week intervals. At T1, a total of 690 questionnaires (470 survey-based and 220 online) were administered to record demographics and respondents' perceptions about EWL. The study achieved a high response rate across all three phases. At T1, 626 questionnaires were returned out of 690 distributed, representing a 90.72% response rate. At T2, 549 questionnaires were received from the 626 respondents

at T1, yielding an 87.69% response rate. Finally, at T3, 488 questionnaires were received from the 549 respondents at T2, resulting in an 88.88% response rate. The consistently high response rates demonstrate the participants' commitment and contribute to the reliability of the findings.

To maintain data integrity, a thorough verification process was conducted to ensure code consistency across all three phases. After scrutiny, 23 questionnaires were excluded due to invalid responses, and 15 were discarded due to incomplete data. Ultimately, 450 questionnaires were deemed valid for data analysis, representing an overall response rate of 70.72% across the three phases, out of which 65.21% was a valid response. In a nutshell, this response rate is considered suitable keeping in view time lag data. Further, careful validation and scrutiny of the data strengthened the study's rigor.

3.4 Pilot Study

Before the main study, a pilot study was conducted to assess the reliability and validity of the research instruments, as recommended by (Vanneman, 2001). This preliminary study aimed to evaluate the effectiveness of the research tools and ensure clarity on research questions, methods, and topics, as emphasized by (Blaxter, Hughes, & Tight, 1996). The pilot test also enabled the identification of any flaws in the questionnaire design, allowing for necessary refinements to enhance its efficacy. A pilot study is a preliminary, small-scale investigation that serves as a precursor to a larger, more comprehensive research project. Its primary objective is to trial and refine research methodologies, instruments, and protocols to ensure their efficacy and accuracy. This initial study evaluates the practicality of the research design, assesses the effectiveness of data collection tools like surveys or interviews, and examines the reliability and validity of measurements. Additionally, it identifies potential biases and confounding variables, enabling researchers to make necessary adjustments before proceeding with the full-scale study. It is useful to gather preliminary data to inform the larger study, estimate the required sample size and ultimately refine the research protocol.

There are certain benefits of conducting the pilot study, which is: (1) It improves research design and methodology, (2) It enhances data quality and accuracy, (3) It reduces the risk of errors and bias, (4) It increases the efficiency of data collection, (5) It provides preliminary insights into the research question, (6) It helps to identify and address potential problems, (7) It allows for refinement of research instruments and protocols, (8) It enhances the validity and reliability of the study, (9) It can be used to justify funding or support for the larger study, and (10) It provides a platform for training and testing research staff. Conducting a pilot study enables researchers to optimize their larger study's design, methodology, and outcomes, thereby enhancing the overall quality, reliability, and applicability of their findings. By testing and refining their approach on a smaller scale, researchers can ensure a more efficient and effective use of resources, ultimately leading to more robust and generalizable results. For pilot testing, 80 questionnaires were distributed. To check the instrument or questionnaire reliability, Cronbach alpha was examined to check whether all the item values were up to the mark or otherwise. Correlation and regression analysis were further carried out to predict causal as well as relational effects among the constructed variables, respectively.

3.4.1 Pilot Testing Results

To carry out pilot testing through reliability analysis, SMART PLS 4 was used. SmartPLS 4 is a statistical software that is effective for pilot testing of research, offering numerous benefits. First, SmartPLS 4 is ideal for testing theoretical frameworks from a prediction perspective. Second, it efficiently handles complex structural models with numerous constructs, indicators, and relationships. Third, SmartPLS 4 offers several benefits: (1) it enables exploratory research for theory development by investigating new aspects of established theories; (2) it effectively handles formatively measured constructs in path models; (3) it is particularly suitable for small sample sizes or limited data; (4) it can manage distributional issues, such as non-normality; and (5) it provides latent variable scores for further analysis. These features make SmartPLS 4 a versatile and reliable tool for researchers

Overall, the reliability of all constructs was confirmed by evaluating composite reliability. The results were, for ECCI ($\alpha = 0.929$, $\rho_a = 0.931$, $\rho_c = 0.944$, AVE = 0.739), EWV ($\alpha = 0.788$, $\rho_a = 0.796$, $\rho_c = 0.854$, AVE = 0.539), CAn ($\alpha = 0.843$, $\rho_a = 0.856$, $\rho_c = 0.881$, AVE = 0.515), CAd ($\alpha = 0.872$, $\rho_a = 0.875$, $\rho_c = 0.900$, AVE = 0.530), ESE ($\alpha = 0.891$, $\rho_a = 0.896$, $\rho_c = 0.911$, AVE = 0.507), PE ($\alpha = 0.893$, $\rho_a = 0.899$, $\rho_c = 0.914$, AVE = 0.571), GCS ($\alpha = 0.749$, $\rho_a = 0.866$, $\rho_c = 0.819$, AVE = 0.537).

The indicator reliability or the internal consistency of the measurements was ascertained with the use of Cronbach's alpha, factor loading, composite reliability, and ρ_a (Hair, Risher, Sarstedt, & Ringle, 2019). Except for EWV6 and GCS2, the factors loading of all other items of the study was above 0.708, which explained a variance above 50% in the indicators. The factor loadings of EWV7 and EWV8 were below 0.60 and GCS1 and GCS7 below 0.70 and therefore removed, after which composite reliability, Cronbach's alpha, and ρ_a for all study constructs were more than 0.708, thus ensuring the consistency and accuracy of the measurements.

As regards to convergent validity of selected constructs, it was assessed with the help of the Average Variance Extracted (AVE) of the measurements (Hair et al., 2019). The AVE of all study variables was within range (above 0.50 and below 0.85) except EWV6 and GCS 2. This established the convergent validity of the measurements and is reflected in **Table 3.1**.

TABLE 3.1: Construct Reliability and Convergent Validity

	Cronbach's Alpha	Composite Reliability (ρ_a)	Composite Reliability (ρ_c)	Average Variance Extracted (AVE)
ECCI	0.929	0.931	0.944	0.739
EWV	0.788	0.796	0.854	0.539
CAn	0.843	0.856	0.881	0.515
CAd	0.872	0.875	0.9	0.53
ESE	0.891	0.896	0.911	0.507
PE	0.893	0.899	0.914	0.571
GCS	0.749	0.866	0.819	0.537

ECCI: Entrepreneurial Career Choice Intentions; EWV: Employee Work Volition; CAn: Career Anchor; CAd: Career Adaptability, ESE: Entrepreneurial Self-Efficacy; PE: Psychological Empowerment; GCS: Glass Ceiling Syndrome.

3.5 Sample Characteristics

The demographic characteristics of the study's sample offer valuable information about the respondents' composition, which has significant implications for understanding the research findings and their applicability to the target population. The selected demographic factors include age, qualification, employment period, task complexity, and type of services sector help in understanding the representation and diversity of the sample. During analysis of the data, it was found that out of a total of 450 respondents, all were females.

By including female employees working in the IT, banking, education and other services sub-sectors of Pakistan, this study offers a true reflection on the relevant perspective and experiences of these employees especially in the context of the glass ceiling syndrome. The valuable input from various geographical regions across the country helps to capture a balanced participation of the workforce. This enables a comprehensive examination of the relationship between EWV and ECCIs within specific settings of service sector organizations in Pakistan.

The demographic results of the current study reflect interesting insights about the sample characteristics. The age of the maximum number of female respondents lies between 36 - 45 years (n=211, %=46.9) followed by 18-25 years (n=113, %=25.1), followed by 36-45 years (n=91, %=20.2), followed by females > 46 years (n=35, %=7.8). As regards educational qualification, the maximum number of female respondents were masters (n=186, %=41.3), bachelors (n=136, %=30.2), MS/ M/Phil (n=108, %=24.0) and PhD (n=20, %=4.4). The employment period details, first less than 2 years (n=136, %=30.2), followed by 2-5 years (n=124, %=27.6), then 6-11 years (n=95, %=21.1), 12-17 years (n=49, %=10.9) and lastly > 18 years (n=46, %=10.2).

The task complexity was made part of demographics to know the extant female employees are involved in various sets of jobs. It is interesting to note that the maximum number of employees undertake challenging tasks ($n=256$, $\%=56.9$), followed by routine tasks $n=137$, $\%=37.4$), very few undertaking easy tasks ($n=28$, $\%=6.2$) and similarly complex ($n=29$, $\%=6.4$). This reflects that female employees are usually not involved in complex tasks, though most females are into challenging tasks.

As regards to types of service sectors, utmost and careful efforts were made to keep a balance between three major sectors including IT, education, and banking. It was also planned to consider input from the respondents of other service sectors including construction or estate, tourism, hotel industry, manufacturing, engineering, legal and financial enterprises. The results are encouraging and partially the target to consider a balanced input was achieved. Input received in order of maximum numbers was: (1) Banking ($n=145$, $\%=32.2$), (2) Other or miscellaneous services sector ($n=127$, $\%=28.2$), (3) Education ($n=108$, $\%=24.0$), and (4) IT ($n=70$, $\%=15.6$).

The reasons to select IT, banking, education and other sectors for the current study are: (1) There is growing demand for digital services, flexible work arrangements, and relatively low startup costs. (2) There is an increasing focus on financial inclusion, and government initiatives supporting women's entrepreneurship. (3) There rising demand for quality education, potential for social impact, and relatively low barriers to entry for women entrepreneurs. (4) In Pakistan, hotel and tourism industry is growing fast, there are opportunities for women to lead law firms and in financial sector, women are fast availing opportunity to start fintech businesses.

The variation in age, educational qualification, employment length in the organizations, task complexity, and diverse services sub-sectors add richness to the data and allow meaningful analysis of the variables of the research. The sample's characteristics enhance the external validity of the research, allowing for more reliable generalizations and applications of the findings to the broader population of female employees in the service sector, thus; facilitating a profound understanding of the phenomenon under investigation. The sample characteristics are given in **Table 3.2**.

TABLE 3.2: Sample Characteristics

Demographics	Frequency (n=450)	Percentage
Age		
18-25 years	113	25.1
26-35 years	211	46.9
36-45 years	91	20.2
> 46 years	35	7.8
Education Qualification		
Bachelors	136	30.2
Masters	186	41.3
MS/ M/ Phil	108	24
PhD	20	4.4
Employment period		
Less than 2 years	136	30.2
2-5 years	124	27.6
6-11 years	95	21.1
12-17 years	49	10.9
> 18 years	46	10.2
Task Complexity		
Easy	28	6.2
Routine	137	30.4
Challenging	256	56.9
Complex	29	6.4
Type of Services Sector		
IT	70	15.6
Education	108	24
Banking	145	32.2
Other	127	28.2

3.6 Statistical Analysis Tools and Techniques

Both SPSS and PLS-SEM (Smart PLS 4) were used to carry out the preliminary and advanced data analysis. Both statistical software tools are used for data analysis, but they serve different purposes. SPSS is a very useful tool for preliminary data analysis such as data cleaning and processing, descriptive statistics (mean, median, mode, etc), data visualization (charts, graphs, etc), correlation analysis, basic inferential statistics (t-tests, ANOVA, etc). Additionally, this tool

can be employed for sophisticated data analysis techniques, including regression modeling, factor analysis, cluster analysis, discriminant analysis, and time-series analysis, to uncover deeper insights and relationships in the data.

SmartPLS 4, a PLS-SEM software, is primarily utilized for sophisticated data analysis, specifically in the areas of structural equation modeling (SEM) and partial least squares (PLS) path modeling, to examine complex relationships and causal interactions in data, confirmatory factor analysis (CFA), latent variable analysis, mediation and moderation analysis and multi-group analysis. In short, SPSS is a general-purpose statistical software, while PLS-SEM (SmartPLS 4) is specialized for advanced structural equation modeling and partial least squares analysis. SPSS is suitable for preliminary data analysis, while PLS-SEM (SmartPLS 4) is ideal for advanced data analysis and modeling complex relationships.

In the current study, SPSS was used for carrying out our data entry, coding, editing, reliability and correlation analysis. The data underwent a thorough screening process, which included the calculation of descriptive statistics and frequency analyses. Furthermore, tests for normality and common method bias were also conducted to ensure the data's integrity and validity. From the perspective of prediction, the theoretical framework was also assessed ([Becker, Cheah, Gholamzade, Ringle, & Sarstedt, 2023](#)). By evaluating the theoretical framework from a predictive lens, researchers can ensure that their theory is robust, accurate, and useful for explaining and predicting phenomena in their field of study.

To validate the measurement model, structural model, and hypothesis testing, PLS-SEM (SmartPLS) was employed. Following this, a comprehensive analysis of mediation and moderation effects in the theoretical model was conducted simultaneously. SmartPLS offers a distinct advantage over other data analysis tools, as it does not assume data normality and enables the estimation of complex models and structural paths in a single analysis.

PLS-SEM has gained popularity across various social science disciplines, including strategic management ([Hair, Sarstedt, Pieper, & Ringle, 2012](#)) and human resource management ([Ringle, Sarstedt, Mitchell, & Gudergan, 2020](#)), due to its ability to handle intricate research models.

The study employed simple linear regression to examine the direct relationships between employee work volition, career adaptability, and career anchor on three outcome variables: entrepreneurial self-efficacy, psychological empowerment, and entrepreneurial career choice intentions. Additionally, the direct effects of entrepreneurial self-efficacy and psychological empowerment on entrepreneurial career choice intentions were also investigated using simple linear regression. Furthermore, bootstrapping analysis was conducted to explore the mediating roles of entrepreneurial self-efficacy and psychological empowerment between employee work volition, career adaptability, career anchor, and entrepreneurial career choice intentions. By using bootstrapping to examine mediation effects, researchers can increase the accuracy and reliability of their findings, ultimately contributing to a better understanding of complex research questions.

Bootstrapping offers two significant advantages when analyzing mediation effects in research. Firstly, it provides more precise and reliable confidence intervals for mediation effects, particularly in cases where the sample size is limited or the data deviates from normality. Secondly, bootstrapping is a robust method that doesn't require any assumptions about the data distribution or mediation effects, making it an ideal choice for researchers. Third, it can detect mediation effects with greater power than traditional methods, especially in small samples. Fourth, bootstrapping can be applied to various mediation models, including simple and complex models, and multiple mediator models. Fifth, it reduces bias in estimating mediation effects, providing more accurate estimates. Lastly, it provides more precise estimates of mediation effects, allowing for a better understanding of the relationships between variables.

Chapter 4

Results and Findings

4.1 Introduction

This chapter gives details about data analysis and study results. In the subsequent sections, analyzing data and hypotheses testing data are given in Section 4.2, data scanning is covered in Section 4.3. It has contents such as data cleaning in Section 4.3.1, missing values in Section 4.3.2, outliers in Section 4.3.3, and descriptive statistics in Section 4.3.4. The data analysis is given in Section 4.4 which includes the measurement model in Section 4.4.1, Outer loadings in Section 4.4.2, reliability in Section 4.4.3 and structural model in Section 4.4.4. At the end of the chapter, a summary of the results is given in section 4.5.

4.2 Analyzing Data and Hypotheses Testing

The data was analyzed using Structural Equation Modeling (SEM) with Smart PLS, and the reliability and validity of the measurement model were evaluated to ensure the accuracy and consistency of the results. In the first step, data was prepared to include importing data into SmartPLS, checking for missing values and outliers and scaling/ normalizing data, if necessary. Subsequently, model specification is checked by defining the research model (measurement and structural) and specifying paths for relationships between variables. Model estimation

is done using the PLS algorithm and estimating standard errors using a bootstrapping procedure. In the end, model evaluation and refinement are carried out and results are reported after interpretation.

For hypothesis testing, the structural model was used. In addition, mediation and moderation analysis were also carried out during the process of hypothesis testing. SmartPLS provides a user-friendly interface to perform these steps, with features like graphical model specification, automatic model estimation and evaluation, bootstrapping and simulation procedures, comprehensive output and reporting options.

SmartPLS allows the testing of complex hypotheses involving multiple variables and relationships. It provides detailed output, including p-values, confidence intervals, and effect sizes, facilitating interpretation and decision-making. It also provides high precision in hypothesis testing, even with small sample sizes.

The data was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM), a powerful technique that integrates the predictive capabilities of PLS regression with the modelling strengths of SEM, enabling the simultaneous assessment of complex relationships and latent variables. There are two reasons for this, first, it serves as a good technique to check the new linkage in the framework of exploratory research and second, it is known to be a powerful tool to investigate constructs having prediction orientation. While using PLS-SEM as a prediction technique, the justification is that it has been introduced in the latest study by ([Shmueli et al., 2019](#)). Its application in the current study for checking the prediction of behaviour is very authentic.

Being prediction-oriented, PLS-SEM is designed for predictive modelling, focusing on predicting dependent variable(s) using independent variable(s). It is based on the SEM framework, which allows for the estimation of complex relationships between variables. It uses PLS regression to estimate the relationships between variables, handling both continuous and categorical data. Most importantly, it uses an iterative algorithm to estimate the model parameters, ensuring accurate predictions.

4.3 Data Screening

In the current study, data was screened to check missing values, outliers, distribution and linearity. Data screening is reviewing and evaluating data to ensure it is accurate, complete, and consistent before conducting statistical analyses or modelling. The goal is to identify and address any data quality issues that could impact the validity and reliability of the results. Checking the missing values involves identifying missing or null values and determining the appropriate approach to handle them (e.g., imputation, deletion). Similarly, distribution and linearity in the data screening process involve evaluating the characteristics of the data to ensure it meets the assumptions of various statistical analyses and modelling techniques.

4.3.1 Data Cleaning

The data cleaning was also performed in the current study. As suggested by past researchers (see [Hair, Sarstedt, Pieper, & Ringle, 2012](#)), the data was assessed to find missing values, outliers and normality, as to ensure accuracy of results, it is essential to clean the data. The data cleaning process typically involves (1) Data inspection or review for errors, missing values, and inconsistencies, (2) data validation by checking the data against external sources, (3) Data normalization meaning by standardizing data formats and scales, (4) Data transformation by converting data types or formats to meet analysis requirements, (5) Deciding on strategies to address missing data, such as imputation or deletion, (6) Eliminating duplicate records or observations, (7) Data quality check by verifying the data for consistency and accuracy, and (8) Data formatting to organize data into a suitable format for analysis.

4.3.2 Missing Values

Missing values arise as the respondents fail to fully extend the required information knowingly or unknowingly and this is usually common in research involving survey-based questions. It's important to identify missing values and determine

appropriate strategies for handling them so that data remains reliable and valid for analysis and interpretation. By identifying missing values, researchers and analysts can ensure the accuracy, reliability, and validity of their findings, ultimately leading to better decision-making and more credible research. Against the same backdrop, the missing values were adequately considered in the current study.

The missing values can occur due to various reasons including non-response by participants, data entry errors such as typos or incorrect coding, technical issues with the data collection instrument or devices, withdrawal of participants to attempt to respond or failure to complete all measurements, data collection limitations such as time, resources and access and loss of data due to storage or transfer issues. Sometimes participants may become tired or disengaged during long surveys and poorly designed surveys or questions may also make respondents unclear or confusing.

4.3.3 Normal Distribution

In simple terms, normality is covariance-based partial least structural equation modelling and normality tests are carried out to check whether the data is well-modeled by a normal distribution. According to some researchers, data transformation to normality can mask important data characteristics, a limitation of variance-based structural equation modelling (Hair et al., 2019). They propose identifying extreme values by examining skewness and kurtosis, following (Bollen, 1989) approach to evaluating univariate normality.

Skewness measures the distribution's asymmetry around the mean, with positive values indicating scores clustered below the mean and negative values indicating scores clustered above the mean (Thompson, 2009). Kurtosis, on the other hand, measures the distribution's tailedness, with positive values indicating a high peak with heavy and short tails (leptokurtic) and negative values indicating a low peak with thin and long tails (platykurtic) (Tabachnick & Fidell, 1996). When examining data distribution, significant skewness, kurtosis, or both may be present. Standard skewness ranges from -3 to 3, with values above 3 indicating positive

skewness and values below -3 indicating negative skewness (Tabachnick and Fidell, 1996). In this study, no significant skewness or kurtosis was detected, and all variables exhibited normal distribution within the prescribed range.

Skewness and kurtosis play a crucial role in research as they: (1) Reveal the shape of the data distribution, which is vital for choosing appropriate statistical tests and models, (2) Serve as indicators of potential outliers or errors in the data, necessitating further examination and correction (3) Skewness and kurtosis help determine whether parametric or non-parametric tests are suitable for the data, (4) Understanding skewness and kurtosis are crucial for the accurate interpretation of statistical results, such as means, medians, and regression analyses, (5) Failing to consider skewness and kurtosis can lead to misinterpretation of results, potentially resulting in incorrect conclusions, (6) The examination of skewness and kurtosis can reveal the necessity for data transformation to satisfy the requirements of certain statistical tests or models, thereby ensuring the accuracy and reliability of the results (7) Skewness and kurtosis can serve as indicators of data quality, helping researchers evaluate the reliability and accuracy of their data, and finally (8) Skewness and kurtosis can guide the selection of appropriate data visualizations, ensuring that the visual representation accurately represents the data.

4.3.4 Outliers

In research, an outlier is a data point that substantially differs from the majority of the data, indicating an unusual or abnormal observation. An outlier is a case or data point with scores that significantly depart from the rest of the cases or data. This deviation can result from measurement variability or experimental error. Since outliers contradict the assumption of normality, they can impact the findings. Univariate outliers occur when the extreme score is limited to a single variable, while multivariate outliers involve extreme scores in multiple variables. In large data sets, normally few outliers exist and for authentication of findings, the original metric is meaningful as compared to the transformed metric (Kline, 2005). It's important to identify outliers because they can skew analysis results, influence statistical models, affect data interpretation, hide patterns or relationships, and

indicate interesting phenomena. This study's hypothesized model was tested with and without multivariate outliers, and the results showed that their inclusion did not substantially affect the model's overall fit. The data was reviewed to ensure all values fell within the expected range of 1-5. Although a few outliers were identified, they were retained in the analysis, and no data transformation was performed in this study. Finding outliers is crucial to ensure data quality, prevent biased results, identify potential errors, gain insights into unusual behaviour, and improve model accuracy.

4.3.5 Descriptive Statistics

Descriptive statistics are a set of methods used to organize, summarize, and describe research data clearly and concisely. These statistical measures provide a univariate summary of individual variables, typically presented in a table. Descriptive statistics include essential information such as sample size, missing values, data range (minimum and maximum values), central tendency (mean), variability (standard deviation), and distribution shape (skewness and kurtosis).

Table 4.1 displays the descriptive statistics for the current study, which comprised a sample of 450 female participants. The mean represents the average value of a specific variable, providing a snapshot of the central tendency of the data. By considering the standard deviation (SD), a better understanding of the data's underlying characteristics can be obtained, which helps in making more informed decisions in the analysis. Using skewness and kurtosis, researchers can ensure that their data is properly understood, analyzed, and interpreted, ultimately leading to more reliable and accurate research findings.

The mean values of EWV, CAn and CAd were 3.38, 3.79 and 3.69 respectively, showing that these employees agreed with the role of these cognitive factors. The mean values of ESE and PE were 3.76 and 4.00 reflecting the agreeableness of employees' experiences in the organizations. Further, the mean value of GCS remained at 2.98, which shows that employees agreed with the phenomenon. Lastly, the mean value of ECCI was 3.64, which confirms the consent of employees on exhibiting such behaviour.

The scores of standard deviations for the current study were measured as, EWV (0.580), CAn (0.661), ESE (0.547), ESE (0.616), PE (0.656), GCS (0.677) and ECCI (0.956). The scores of skewness and kurtosis respectively for various constructs were measured as, EWV (-0.260, 0.469), CAn (-0.291, 0.080), CAd (-0.577, Kurt 1.467), ESE (-0.562, Kurt 1.156), PE (-0.864, 1.791), GCS (0.278, Kurt -0.141), and ECCI (SD=-0.709, -0.017).

Standard deviation in descriptive statistics reveals: (1) It measures how spread out the data is from the mean value, indicating the amount of variation in the data, (2) It provides a sense of the data's spread or dispersion from the average value, (3) It represents the amount of uncertainty or error in the data, helping to understand the reliability of the mean value, (4) It allows for comparisons between different datasets or groups, enabling the evaluation of relative variability, (5) It can indicate data quality issues, such as high variability suggesting measurement errors or inconsistencies.

TABLE 4.1: Descriptive Statistics

Constructs	N	Missing	Min	Max	Mean	SD	Skewness	Kurtosis
EWV	450	0	1	5	3.386	0.58	-0.26	0.469
CAn	450	0	1	5	3.79	0.661	-0.291	0.08
CAd	450	0	1	5	3.693	0.547	-0.577	1.467
ESE	450	0	1	5	3.762	0.616	-0.562	1.1564
PE	450	0	1	5	4.003	0.656	-0.864	1.791
GCS	450	0	1	5	2.988	0.677	0.278	-0.141
ECCI	450	0	1	5	3.644	0.956	-0.709	-0.017

ECCI: Entrepreneurial Career Choice Intentions; EWV: Employee Work Volition; CAn: Career Anchor; CAd: Career Adaptability, ESE: Entrepreneurial Self-Efficacy; PE: Psychological Empowerment; GCS: Glass Ceiling Syndrome.

Skewness measures the distribution's asymmetry around the mean, with positive values indicating scores clustered below the mean and negative values indicating

scores clustered above the mean (Thompson, 2009). Kurtosis, on the other hand, measures the distribution's tailedness, with positive values indicating a high peak with heavy and short tails (leptokurtic) and negative values indicating a low peak with thin and long tails (platykurtic) (Tabachnick & Fidell, 1996). When examining data distribution, significant skewness, kurtosis, or both may be present. Standard skewness ranges from -3 to 3, with values above 3 indicating positive skewness and values below -3 indicating negative skewness (Tabachnick & Fidell, 1996). In this study, no significant skewness or kurtosis was detected, and all variables exhibited normal distribution within the prescribed range.

Skewness and kurtosis play a crucial role in research as they: (1) Reveal the shape of the data distribution, which is vital for choosing appropriate statistical tests and models, (2) Serve as indicators of potential outliers or errors in the data, necessitating further examination and correction (3) Skewness and kurtosis help determine whether parametric or non-parametric tests are suitable for the data, (4) Understanding skewness and kurtosis are crucial for the accurate interpretation of statistical results, such as means, medians, and regression analyses, (5) Failing to consider skewness and kurtosis can lead to misinterpretation of results, potentially resulting in incorrect conclusions, (6) The examination of skewness and kurtosis can reveal the necessity for data transformation to satisfy the requirements of certain statistical tests or models, thereby ensuring the accuracy and reliability of the results (7) Skewness and kurtosis can serve as indicators of data quality, helping researchers evaluate the reliability and accuracy of their data, and finally (8) Skewness and kurtosis can guide the selection of appropriate data visualizations, ensuring that the visual representation accurately represents the data.

4.4 Data Analysis

Following data cleaning, the prepared data was subjected to the primary analysis, which employed partial least squares structural equation modelling (PLS-SEM) using SmartPLS version 4. The analysis involved simple linear regression to examine the direct influences of EWV, CAd, and CAn on ESE, PE, and ECCI. Additionally, the direct effects of ESE and PE on ECCI were investigated using

simple linear regression. To explore the mediating roles of ESE and PE between EWV, CAn, CAd, and ECCI, a bootstrapping technique was applied. Furthermore, to investigate the moderating effects of GCS on the relationships between ESE, PE, and ECCI, graph plots with +1 and -1 standard deviations were planned to visualize potential interaction effects.

The application of PLS-SEM has become increasingly prevalent across various social science disciplines, including strategic management ([Hair, Sarstedt, Ringle, & Mena, 2012](#)), international management ([Hair et al., 2019](#); [Ringle, Sarstedt, & Straub, 2012](#)), and marketing ([Hair, Sarstedt, Ringle, & Mena, 2012](#)), demonstrating its versatility and utility in these fields. The best part of PLS-SEM is the ability of the method to allow researchers to carry out the estimation of complex models having multiple constructs. Being a causal predictive approach, PLS-SEM emphasizes fair prediction during the estimation of statistical models ([Hair et al., 2019](#)). It has benefits to offer such as it overcomes the dichotomy in explanation and prediction. In addition, researchers recommend to apply PLSpredict to assess predictive power ([Shmueli et al., 2019](#)).

Its capabilities in prediction include (1) Continuous variables, such as attitudes, behaviours, or outcomes, (2) Categorical variables, such as group membership or binary outcomes, (3) Latent variables, such as constructs or factors, which are not directly observable, (4) Can model complex relationships between variables, including non-linear and interactive effects, (5) Test mediation and moderation hypotheses, examining the indirect and conditional effects of variables, (6) Predict multiple outcomes simultaneously, (7) Analyze longitudinal data, examining changes and predictions over time, (8) Analyze data from multiple groups, examining differences and predictions across groups, (9) Can handle large datasets, making it a powerful tool for big data analysis in social sciences.

Partial Least Squares Structural Equation Modeling (PLS-SEM), is a powerful statistical technique used in social science research for data analysis and prediction. By leveraging these capabilities, researchers in social sciences can use PLS-SEM to predict various outcomes, test complex hypotheses, and gain an understanding of the association between variables, ultimately contributing to the advancement of

knowledge in their fields. In the succeeding paragraphs, a measurement model is given that considers reliability and validity and in the subsequent part, hypothesis testing is made in the structural model.

It is pertinent to mention that due to certain cultural norms and social desirability, potential biases or limitations in the data analysis are likely. First, respondents may provide answers that align with traditional Pakistani cultural value, rather than their true opinions or experiences. Second, female professionals may feel pressured to provide answers that are deemed socially acceptable, rather than honest responses. Third, the sample may not be representative of the larger population of Pakistani females, potentially leading to biased results. Fourth, the findings may not be generalization to other contexts or populations, such as rural areas or different socioeconomic groups. Further, multiple data sources were used to validate findings. It was ensured that limitations and potential biases are clearly reflected in the study.

Common method bias (CMB) was assessed using the Variance Inflation Factor (VIF) values to ensure that systematic measurement errors did not unduly influence the results. Common method bias can arise when data for both independent and dependent variables are collected from the same source, potentially leading to inflated correlations and misleading conclusions ([Podsakoff et al., 2003](#)).

To detect CMB, the full collinearity approach was applied, wherein VIF values were computed for all constructs. According to [Kock \(2015\)](#), VIF values below the threshold of 3.00 indicate the absence of substantial common method variance. The analysis confirmed that all VIF values were below 3.00, suggesting that common method bias was not a significant concern in this study. Consequently, the results can be considered robust and free from distortions caused by common method variance.

4.5 Measurement Model

The evaluation of PLS-SEM results follows a sequential approach, starting with the measurement model. Only when the measurement model meets the necessary

criteria can the structural model be evaluated. This sequence is crucial, as the measurement model ensures that the latent constructs accurately reflect the observed variables, providing a reliable foundation for subsequent analyses. By evaluating the measurement model first, researchers can trust that their conclusions will be meaningful and reliable.

Evaluating it first ensures that the constructs are accurately captured. If the measurement model is not properly specified, it can lead to biased estimates in the structural model. Further, evaluating the measurement model first helps avoid misinterpreting relationships between constructs due to poor measurement. The measurement model evaluation establishes the validity of the constructs, which is essential for drawing meaningful conclusions. In addition, the measurement model helps identify measurement errors, which can be addressed before proceeding to the structural model. Thus, by ensuring accurate measurement, the structural model interpretation becomes more straightforward and reliable. Above all, by ensuring a well-specified measurement model, the overall model fit and accuracy are enhanced.

4.6 Outer Loadings

When evaluating the measurement model, the initial step is to examine the item loadings. A loading score exceeding 0.708 is considered acceptable, indicating a reliable relationship between the items and the underlying construct. In PLS-SEM, outer loadings represent the relationships between manifest variables (observed variables) and latent variables (constructs). If an outer loading falls below 0.708, it suggests a weak association between the observed variable and the latent construct, implying a potential issue with measurement reliability. The common practice is to consider outer loadings with values ≥ 0.708 (or 0.7) as substantial and meaningful, ≥ 0.5 to 0.7 as moderate and < 0.5 as weak and potentially irrelevant.

The scores of outer loadings of EWV have been EWV1=0.716, EWV2=0.686, EWV3=0.778, EWV4=0.766 and EWV5=0.722. The outer loading of EWV6, EWV7, and EWV8, being weak, were potentially irrelevant and, hence, removed.

In case of CAn, the achieved score has been CAn1=0.731, CAn2=0.792, CAn3=0.784, CAn4=0.698, CAn6=0.640, CAn8=0.674, CAn9=0.690. The outer loading of CAn5, CAn7, and CAn10, being weak, were potentially irrelevant and, hence, removed. As regards CAd, the achieved score has been CAd1=0.744, CAd2=0.709, CAd3=0.690, CAd4=0.759, CAd5=0.828, CAd6=0.767, CAd7=0.710. The outer loading of CAd8, CAd9, CAd10, and CAd11, being weak, were potentially irrelevant and, hence, removed.

In case of ESE, the score of outer loading has been ESE1=0.666, ESE2=0.646, ESE6=0.778, ESE7=0.691, ESE8=0.711, ESE9=0.724, ESE10=0.782, ESE11=0.775 and ESE12=0.745. The outer loading of ESE3, ESE4, and ESE5 being weak were potentially irrelevant, hence removed. As regards PE, the score of outer loading of all instruments has exhibited substantial outer loadings, the score of each has been PE1=0.764, PE2=0.741, PE3=0.811, PE4=0.762, PE5=0.738, PE6=0.716, PE7=0.767 and PE8=0.741. The outer loading score of GCS has been GCS3=0.613, GCS4=0.813, GCS5=0.853, and GCS6=0.615. The outer loadings of GCS1, GCS2, and GCS7, being weak, were potentially irrelevant and hence removed. Lastly, all outer loadings of ECCI achieved substantial scores; details are ECC1=0.759, ECC2=0.842, ECC3=0.874, ECC4=0.895, ECC5=0.900, and ECC1=0.879. The Outer loadings of the study are given below in **Table 4.2**.

TABLE 4.2: Outer Loadings

Items	EWV	CAn	CAd	ESE	PE	GCS	ECCI
EWV1	0.715						
EWV2	0.686						
EWV3	0.778						
EWV4	0.766						
EWV5	0.722						
CAn1		0.731					
CAn2		0.792					
CAn3		0.784					
CAn4		0.698					

Continued Table 4.2: Outer Loadings

Items	EWV	CAn	CAd	ESE	PE	GCS	ECCI
CAn6		0.640					
CAn 8		0.674					
CAn 9		0.690					
CAd1			0.744				
CAd2			0.709				
CAd3			0.690				
CAd4			0.759				
CAd5			0.828				
CAd6			0.767				
CAd7			0.710				
ESE1				0.666			
ESE2				0.646			
ESE6				0.778			
ESE7				0.691			
ESE8				0.711			
ESE9				0.724			
ESE10				0.781			
ESE11				0.782			
ESE12				0.745			
PE1					0.764		
PE2					0.741		
PE3					0.811		
PE4					0.762		
PE5					0.738		
PE6					0.716		
PE7					0.767		
PE8					0.741		
GCS3						0.611	
GCS4						0.813	
GCS5						0.853	
GCS6						0.615	

Continued Table 4.2: Outer Loadings

Items	EWV	CAn	CAd	ESE	PE	GCS	ECCI
ECCI1							0.759
ECCI2							0.842
ECCI3							0.874
ECCI4							0.895
ECCI5							0.900
ECCI6							0.879

ECCI: Entrepreneurial Career Choice Intentions; EWV: Employee Work Volition; CAn: Career Anchor; CAd: Career Adaptability, ESE: Entrepreneurial Self-Efficacy; PE: Psychological Empowerment; GCS: Glass Ceiling Syndrome.

4.7 Reliability

Reliability refers to the consistency of a measure, which is a fundamental requirement for validity (Walsh & Betz, 1995). There are several methods to evaluate reliability, including internal consistency, split-half reliability, and inter-rater reliability. In this study, we employed internal consistency and test-retest reliability measures to assess reliability. The commonly accepted threshold for composite reliability is 0.7 (Gefen, Straub, & Boudreau, 2000).

Composite reliability can be used to evaluate the internal consistency of a measure (Werts, Rock, Linn, & Jöreskog, 1978). While values between 0.6 and 0.7 are considered acceptable, values between 0.7 and 0.9 indicate good reliability, and values above 0.95 may suggest item redundancy, potentially negatively impacting construct validity (Diamantopoulos, Sarstedt, Fuchs, Wilczynski, & Kaiser, 2012).

Cronbach's Alpha (α) is a statistical measure used to evaluate the internal consistency of a survey or scale, assessing the reliability of the measurement tool. Ranging from 0 to 1, higher Alpha values indicate greater reliability, with a single reported value in research results representing the degree of relatedness among

survey or scale items in measuring a single construct. A high Alpha value signifies high consistency and reliability, while a low value indicates lower consistency and reliability.

Different values of Cronbach α typically indicate are $\alpha < 0.6$ = poor reliability, $\alpha = 0.6 - 0.7$ acceptable reliability, $\alpha > 0.8$ excellent reliability. As per achieved results, Cronbach alpha of various constructs has achieved acceptable and excellent reliability (EWV = 0.788, CAn = 0.843, Cad = 0.872, ESE = 0.891, PE = 0.893, GCS = 0.749, and ECCI 0.929). This indicates survey items are highly consistent and reliable in measuring various constructs. Ranging from 0 to 1, higher Alpha values indicate greater reliability, with a single reported value in research results representing the degree of relatedness among survey or scale items in measuring a single construct. A high Alpha value signifies high consistency and reliability, while a low value indicates lower consistency and reliability.

The measurement's indicator reliability or internal consistency was ascertained using Cronbach's alpha, factor loading, composite reliability and rho_a (Hair et al., 2019). The factor loading of EWV2, CAn4, CAn6, CAn8, CAn9, CAd3, ESE1, ESE2 and GCS3 were between 0.60 to 0.708, which was moderate and acceptable. The factors loading of all other study items were above 0.708, which explained a variance above 50% in the indicators.

The factor loadings of EWV6, EWV 7, EWV8, CAd8, ESE3, ESE4, ESE5, GCS1, GCS2 and GCS7 were below 0.60. Therefore these items were removed, after which composite reliability, Cronbach's alpha, and Rho_a for all study constructs were more than 0.708, hence establishing the reliability of the measurements.

The convergent validity of the selected constructs was evaluated using the Average Variance Extracted (AVE) measure (Hair et al., 2019). AVE is a statistical metric that assesses the validity of a construct by calculating the average variance in the indicators (items or variables) that is explained by the construct. AVE values range from 0 to 1, with higher values indicating stronger construct validity, thereby confirming the construct's ability to explain the variance in its indicators. Different values of AVE are AVE < 0.5 = poor construct validity (less than 50% of variance explained), AVE = 0.5 to 0.6 are acceptable construct validity (50-60%

of variance explained), $AVE = 0.7 - 0.8$ is good construct validity (70-80% of variance explained, and $AVE > 0.8$ is excellent construct validity (more than 80% of variance explained).

AVE is used in conjunction with other measures like Chronbach's alpha to assess the reliability and validity of the construct. The AVE of all study variables was within range (above 0.50 and below 0.85) except EWV6 and GCS 2. This established the convergent validity of the measurements and is reflected in **Table 4.3**.

TABLE 4.3: Convergent Reliability and Validity of Measurements

Measures	CA	CR (rho_a)	CR (rho_c)	AVE
EWV	0.788	0.799	0.854	0.539
CAn	0.843	0.856	0.881	0.515
CAd	0.872	0.875	0.900	0.530
ESE	0.891	0.897	0.911	0.507
PE	0.893	0.896	0.914	0.571
GCS	0.749	0.867	0.819	0.536
ECCI	0.929	0.932	0.944	0.739

ECCI: Entrepreneurial Career Choice Intentions; EWV: Employee Work Volition; CAn: Career Anchor; CAd: Career Adaptability, ESE: Entrepreneurial Self-Efficacy; PE: Psychological Empowerment; GCS: Glass Ceiling Syndrome.

We assessed the discriminant validity of the measurements using the Heterotrait-Monotrait (HTMT) ratio ([Becker et al., 2023](#)). The HTMT ratio determines whether a construct is empirically distinct from other constructs in the study. It

compares the correlation between different constructs (heterotrait) with the correlation between the same construct measured with different methods (monotrait). HTMT ratio values range from -1 to 1, with values closer to 0 indicating better discriminant validity. The interpretation of HTMT ratio values is as follows: values less than 0.9 indicate good discriminant validity (constructs are empirically distinct), while values greater than or equal to 0.9 indicate poor discriminant validity (constructs are not empirically distinct).

The square root of the AVE of given constructs was more than their correlations with other constructs of the study. In addition, the correlation between corresponding constructs of the study was lesser than 0.90, hence the discriminant validity of measurement was established using HTMT as reflected in **Table 4.4**.

TABLE 4.4: Discriminant Validity (HTMT Ratio)

Variables	CAd	CAn	ECCI	ESE	EWV	GCS	PE
CAd							
CAn	0.627						
ECCI	0.324	0.529					
ESE	0.643	0.608	0.429				
EWV	0.422	0.253	0.208	0.348			
GCS	0.129	0.199	0.181	0.123	0.256		
PE	0.594	0.576	0.255	0.718	0.449	0.129	

ECCI: Entrepreneurial Career Choice Intentions; EWV: Employee Work Volition; CAn: Career Anchor; CAd: Career Adaptability, ESE: Entrepreneurial Self-Efficacy; PE: Psychological Empowerment; GCS: Glass Ceiling Syndrome.

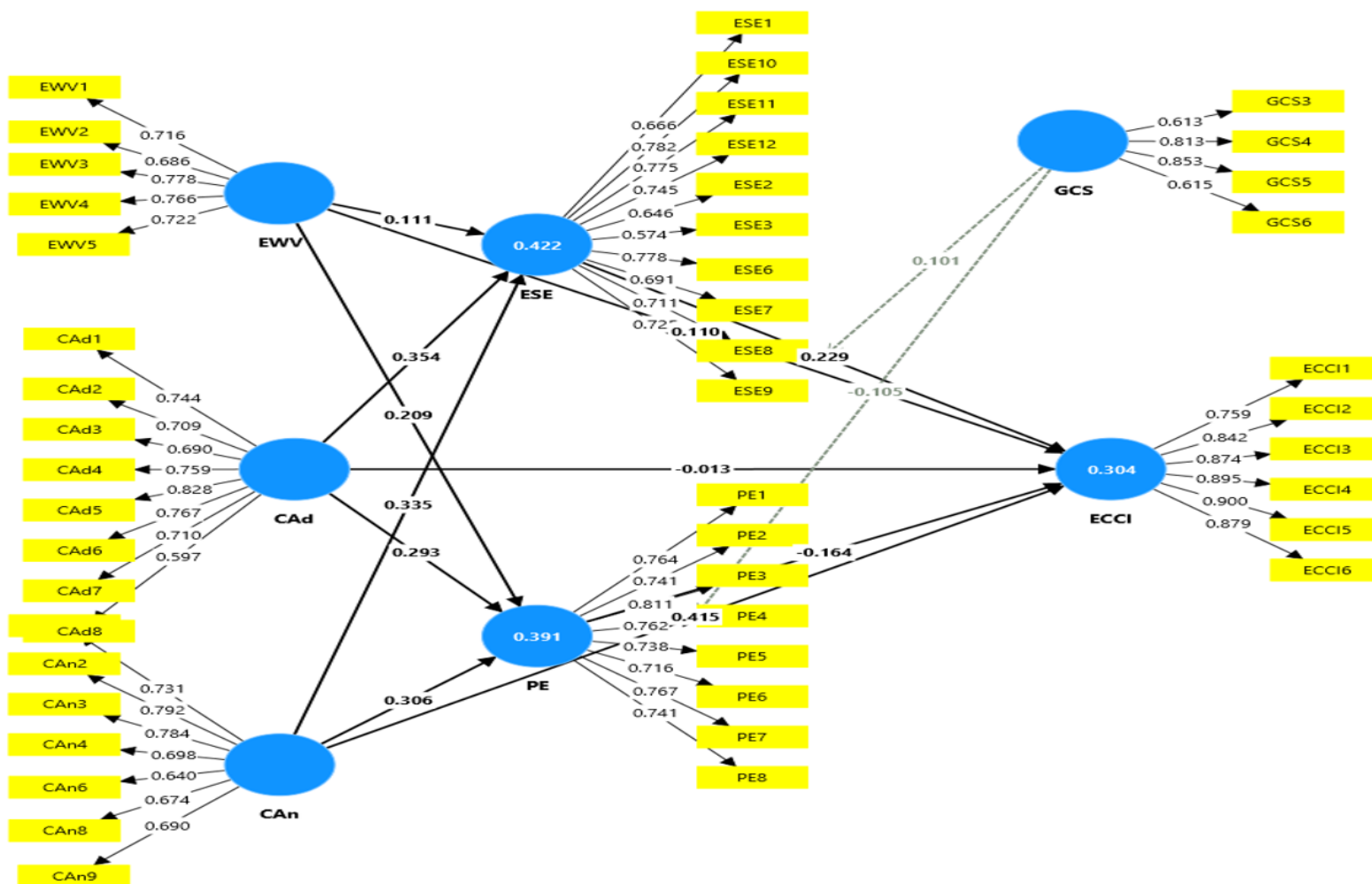


FIGURE 4.1: Measurement Model

4.7.1 Structural Model

The issue of multicollinearity among the constructs was assessed using the Variance Inflation Factor (VIF) values. Multicollinearity occurs when independent variables in a regression model are highly correlated, which can distort statistical estimates and compromise the reliability of the findings. To ensure that the constructs were not excessively correlated, VIF values were computed. According to established guidelines, VIF values below 3.00 indicate an acceptable level of collinearity and suggest that multicollinearity is not a concern ([Hair et al., 2019](#)).

The analysis results revealed that all VIF values were below the threshold of 3.00, confirming that multicollinearity was not an issue in this study. Hence, the constructs could be reliably included in the subsequent analyses without the risk of inflated standard errors or misleading interpretations.

Before testing the structural model and hypothesis, the outer model, which represents the reliability and validity of the measurement model, was evaluated ([Ringle et al., 2020](#)). The analysis of the reflective measurement model was performed using the PLS algorithm with path weighting and standardized results in PLS-SEM ([Memon, Cheah, & Ramayah, 2021](#)). The inner model, also known as the structural model, represents the relationships between the constructs (variables) in the research model. It is the core of the research model, illustrating the hypothesized relationships between the variables. The measurement model is depicted in **Figure 4.1**.

The inner model is important to be assessed for several reasons, which include: (1) It allows researchers to test their hypotheses about the relationship between variables, (2) It helps to develop and test theories, explaining how variables interact and influence each other, (3) It enables researchers to predict outcomes and explain phenomena, providing insights into the underlying mechanisms, (4) Assessing the inner model ensures that the research model is valid, reliable, and accurately represents the relationships between variables, (5) It informs decision making, policy development and intervention strategies in various fields, such as business, healthcare, and social sciences.

Evaluating the inner model involves examining the path coefficients to determine the strength and direction of the relationships between variables, assessing the R-squared value to determine the amount of variance explained by the model, and reviewing fit indices such as chi-square, RMSEA, and CFI to determine how well the model fits the data.

Additionally, residual analysis is conducted to ensure that the model accurately represents the data. By assessing the inner model, researchers can verify that their research model is robust, reliable, and provides valuable insights into the relationships between variables, thereby ensuring the validity and reliability of their findings.

The inner model was assessed by using various systems of measurement including coefficient determination (R^2), lateral collinearity, the relevance of path coefficients and statistical significance (Becker et al., 2023). The structural model was evaluated using PLS-SEM (Smart PLS) with the bootstrapping technique, which involved generating 10,000 subsamples, setting a two-tailed significance level of less than 0.05 with fixed seeds, and producing standardized results with path weighting schemes and percentile confidence intervals. The structural model is elucidated in **Figure 4.2**.

After evaluating the measurement model, the structural model is assessed to determine the outcomes of PLS-SEM. The standard evaluation criteria include the "Blindfolding-based cross-validated redundancy measure Q^2 " and the "coefficient of determination (R^2)". R^2 , which ranges from 0 to 1, indicates the variance explained in endogenous constructs (Shmueli et al., 2019), with higher values signifying greater explanatory power.

The thresholds of 0.25, 0.5, and 0.75 represent weak, moderate, and substantial explanatory power, respectively (Henseler, Ringle, & Sinkovics, 2010). Additionally, researchers evaluate the predictive power using the PLSpredict procedure (Shmueli et al., 2019). A Q^2 value greater than zero indicates predictive accuracy in the structural model, with values above 0.25 and 0.5 representing medium and large predictive relevance, respectively.

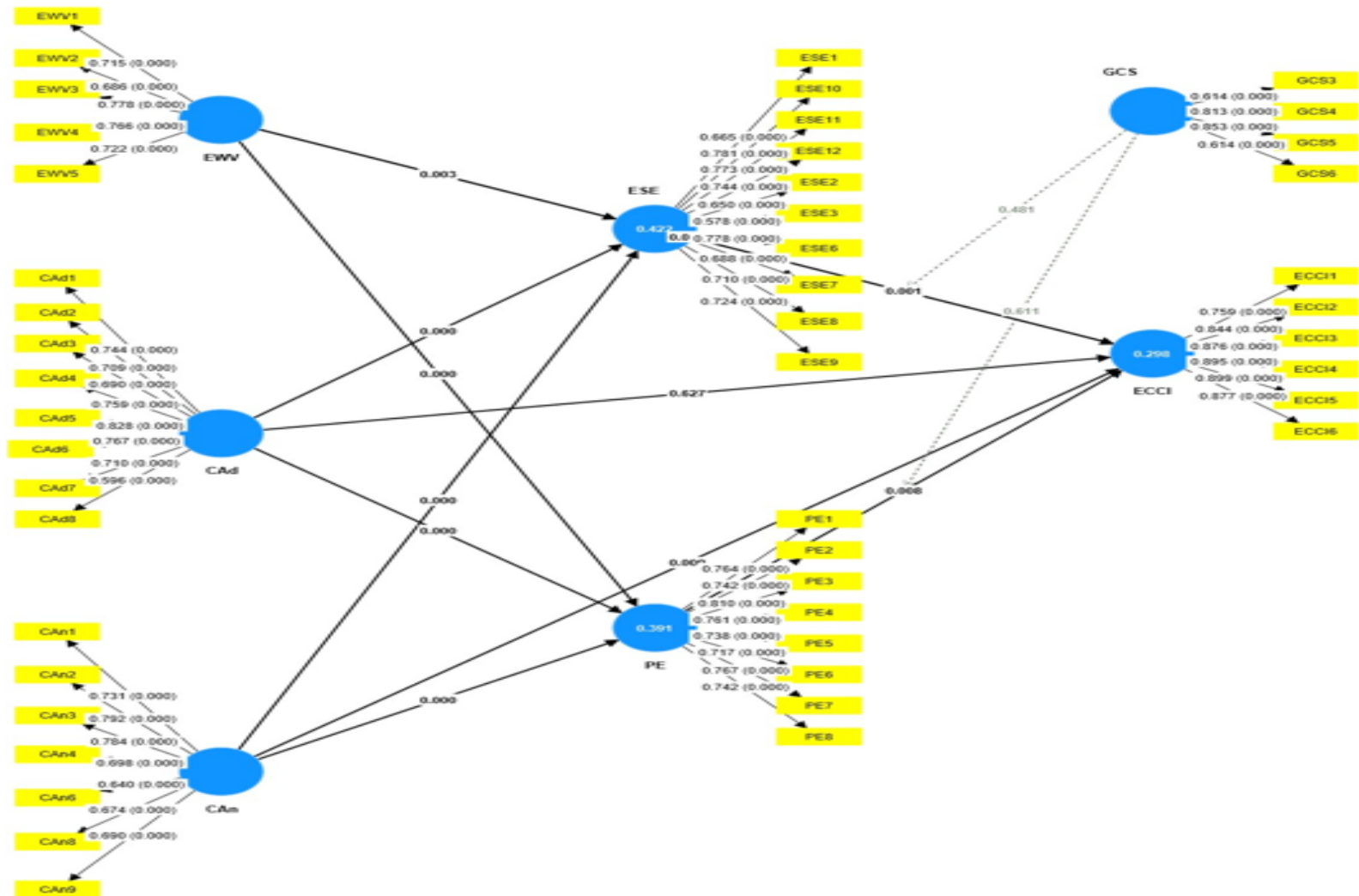


FIGURE 4.2: Structural Model

The Variance Inflation Factor (VIF) of study constructs was observed less than 3.0, which indicates the nonexistence of collinearity among the constructs. VIF is a statistical measure used to detect multicollinearity between variables in a regression analysis. It indicates the extent to which the variance of a regression coefficient is increased due to correlation with other variables. VIF values are < 5 = no multicollinearity, 5-10 = moderate multicollinearity and > 10 = high multicollinearity. No multicollinearity indicates that the construct is not highly correlated with other variables, and the regression coefficient is reliable.

The model's in-sample explanatory power was assessed using the coefficient of determination (R^2), which measures the proportion of variance in the outcome variable explained by the predictor variables. R^2 values, ranging from 0 to 1, indicate the model's goodness of fit, with higher values signifying a better explanation of the outcome variable by the predictors.

In research results, R^2 values for study constructs indicate that low R^2 = 0 to 0.3, suggesting that predictors poorly explain the outcome and other factors may be influential. Moderate R^2 = 0.3 to 0.6 indicating moderate explanation of outcome by predictors. Similarly values of High R^2 = 0.6 to 0.9 and very high = 0.9 to 1. The value of variance of ECCI to predictors was found to be 0.294 (low), ESE 0.422 (moderate) and PE 0.391 (moderate).

The effect size (F^2) quantified the impact of the exogenous construct on the endogenous construct, revealing the practical significance of their relationship. F^2 measures the change in the outcome variable resulting from a one-unit change in the predictor variable while accounting for other variables in the model. The F^2 values indicate the magnitude of this effect, with 0 indicating no effect, < 0.15 indicating a small effect, 0.15-0.35 indicating a medium effect, and > 0.35 indicating a large effect. A small effect denotes a slight change in the outcome when the predictor changes, a medium effect encompasses moderate changes and a large effect implies substantial change.

The effect size of changes of various predictors on the outcomes are, EWV on ECCI = 0.014 (small), CAn on ECCI = 0.141 (small), CAd on ECCI = 0.001 (small), EWV on ESE = 0.019 (small), CAn on ESE = 0.137 (small), CAd on

ESE = 0.140 (small), EWV on PE = 0.062 (small), CAN on PE = 0.109 (small), CAd on PE = 0.091 (small), ESE on ECCI = 0.043 (small), and PE on ECCI = 0.020 (small).

The hypothesis testing was conducted using PLS-SEM (Smart PLS) with bootstrapping to examine the direct, mediating, and moderating relationships between the constructs. The bootstrapping technique involved 10,000 subsamples, a two-tailed significance level of less than 0.05 with fixed seeds, and produced standardized results with path weighting schemes and percentile confidence intervals. The path coefficients were evaluated based on beta (β), p-values, and t-values. The standardized path coefficients ranged from -1 to +1. A hypothesis was considered supported if the beta value was at least 0.10, the t-value was greater than 1.96, and the p-value was less than 0.05 (Hair et al., 2019; Ringle et al., 2020). The results of the hypothesis testing are presented in **Table 4.4**.

Hypotheses testing serves several purpose in the research: (1) It tests whether the proposed theoretical model is supported by data or not, (2) It facilitates to verify whether the model accurately predicts the outcome or not, (3) It serves the purpose to examine the strength and direction of relationship between variables, (4) It compares the performance of different models or competing theories, (5) It assists to determine which predictor have a significant impact on the outcome, (6) It estimates the magnitude of the effects of predictors on outcome, (7) Test whether variable mediate or moderate the relationship between other variables, and (8) It evaluates how well the model fits the data, using matrices like R², RMSEA, and SRMR.

Continued Table 4.5: Hypothesis Testing

Hypothesis	Relationships	β	t values	p values	Results
H-1a	EWV > ESE	0.111	2.963	0.003	Accepted
H-1b	CAd > ESE	0.354	7.332	0	Accepted
H-1c	CAn > ESE	0.335	7.315	0	Accepted
H-2a	EWV > PE	0.208	5.24	0	Accepted
H-2b	CAd > PE	0.293	5.708	0	Accepted
H-2c	CAn > PE	0.306	6.36	0	Accepted

TABLE 4.5: Hypothesis Testing

Hypothesis	Relationships	β	t values	p values	Results
H-3a	EWV > ECCI	0.116	2.319	0.02	Accepted
H-3b	CAd > ECCI	-0.03	0.486	0.627	Rejected
H-3c	CAn > ECCI	0.417	7.178	0	Accepted
H-4a	ESE > ECCI	0.25	3.415	0.001	Accepted
H-4b	PE > ECCI	-0.167	2.672	0.008	Accepted
H-5a	EWV > ESE > ECCI	0.028	2.143	0.032	Accepted
H-5b	CAd > ESE > ECCI	0.088	3.061	0.002	Accepted
H-5c	CAn > ESE > ECCI	0.084	3.16	0.002	Accepted
H-6a	EWV > PE > ECCI	-0.035	2.236	0.025	Accepted
H-6b	CAd > PE > ECCI	-0.049	2.467	0.014	Accepted
H-6c	CAn > PE > ECCI	-0.051	2.334	0.02	Accepted
H-7a	GCS x ESE > ECCI	0.038	0.705	0.481	Rejected
H-7b	GCS x PE > ECCI	0.024	0.509	0.611	Rejected

ECCI: Entrepreneurial Career Choice Intentions; EWV: Employee Work Volition; CAn: Career Anchor; CAd: Career Adaptability, ESE: Entrepreneurial Self-Efficacy; PE: Psychological Empowerment; GCS: Glass Ceiling Syndrome.

4.7.2 Direct Effects

The hypothesis testing results indicate significant relationships among the variables examined. Specifically, the impact of EWV on ESE (H1a) was supported with a path coefficient (β) of 0.111 and a p-value of less than 0.003. Additionally, the impact of CAd on ESE (H1b) was also supported, showing a strong path coefficient (β) of 0.354 and a highly significant p-value of less than 0.000. Similarly,

the influence of An on ESE (H1c) was supported with a path coefficient (β) of 0.335 and a p-value of less than 0.000.

The analysis further revealed significant impacts on PE. The hypothesis that EWV impacts PE (H2a) was supported, with a path coefficient (β) of 0.208 and a p-value of less than 0.000. The impact of CAd on PE (H2b) was supported as well, showing a path coefficient (β) of 0.293 and a p-value of less than 0.000. Additionally, CAn was found to significantly impact PE (H2c), with a path coefficient (β) of 0.306 and a p-value of less than 0.000.

When examining the impact on ECCI, the hypothesis that EWV impacts ECCI (H3a) was supported, with a path coefficient (β) of 0.116 and a p-value of less than 0.020. However, the impact of CAd on ECCI (H3b) was not supported, as indicated by a path coefficient (β) of -0.030 and a non-significant p-value of 0.627. In contrast, the hypothesis that CAn impacts ECCI (H3c) was supported, with a path coefficient (β) of 0.417 and a highly significant p-value of less than 0.000.

Lastly, the analysis showed that the impact of ESE on ECCI (H4a) was supported, with a path coefficient (β) of 0.250 and a p-value of less than 0.001. The hypothesis that PE impacts ECCI (H4b) was also supported, though the relationship was negative, with a path coefficient (β) of -0.167 and a p-value of less than 0.008.

4.7.3 Mediating Effects

The mediation analysis yielded several significant findings. The mediation effect of ESE on the relationship between EWV and ECCI (H5a) was supported, with a path coefficient (β) of 0.028, a p-value of less than 0.032, and a 95% confidence interval ranging from LLCI: 0.011 to ULCI: 0.055. Similarly, the mediation effect of ESE on the relationship between CAd and ECCI (H5b) was supported, indicated by a path coefficient (β) of 0.088, a highly significant p-value of less than 0.002, and a confidence interval of LLCI: 0.046 ULCI: 0.144. The mediation effect of ESE on the relationship between CAn and ECCI (H5c) was also supported, with a path coefficient (β) of 0.084, a p-value of less than 0.002, and a confidence interval from LLCI: -0.089 to ULCI: -0.019.

Additionally, the mediation effect of PE on the relationship between EWV and ECCI (H6a) was supported, showing a path coefficient (β) of -0.035, a p-value of less than 0.025, and a confidence interval from LLCI: -0.063 to ULCI: -0.013. The mediation effect of PE on the relationship between CAd and ECCI (H6b) was similarly supported, with a path coefficient (β) of -0.049, a p-value of less than 0.014, and a confidence interval from LLCI: -0.085 to ULCI: -0.02. Lastly, the mediation effect of PE on the relationship between CAn and ECCI (H6c) was supported, indicated by a path coefficient (β) of -0.051, a p-value of less than 0.020, and a confidence interval from LLCI: -0.089 to ULCI: -0.019.

4.7.4 Moderating Effects

For hypothesis H7a, which examined the moderation effect of GCS on the relationship between ESE and ECCI, the findings indicated that GCS had no influence on this relationship ($\beta = 0.038$, $p < 0.481$). This suggests that varying levels of GCS did not lead to notable changes in how ESE impacts ECCI within the parameters tested.

All three lines have a positive slope, indicating that as ESE increases, ECCI also increases across different levels of GCS. When GCS is high (+1 SD), the positive relationship between ESE and ECCI is stronger. When GCS is low (-1 SD), the positive relationship is weaker. Thus, individuals with higher GCS show a stronger positive response in ECCI to changes in ESE compared to those with lower GCS. Surprisingly, this is against the statistical findings which reflect insignificant moderating effects ($\beta = 0.038$, $p < 0.481$). Therefore, while the moderating graph shows a positive slope, indicating that as ESE increases, ECCI also increases across different levels of GCS, hypothesis H7a is rejected due to no statistical significance.

Similarly, for hypothesis H7b, which explored the moderating role of GCS in the relationship between PE and ECCI, the results also did not support moderating effect ($\beta = 0.024$, $p < 0.611$). Thus, differences in GCS levels did not alter the strength or nature of the relationship between PE and ECCI as anticipated.

All three lines have a negative slope, indicating a negative relationship between PE and ECCI. As PE increases, ECCI decreases across all levels of GCS. When

GCS is low (-1 SD), the negative relationship between PE and ECCI is stronger. When GCS is high (+1 SD), the negative relationship is weaker. The decreasing steepness of the lines from red to blue to green indicates that higher levels of GCS mitigate the negative effect of PE on ECCI. Surprisingly, this is against the statistical findings which reflect insignificant moderating effects ($\beta = 0.024$, $p < 0.611$). Therefore, while the decreasing steepness of the lines from red to blue to green indicates that higher levels of GCS mitigate the negative effect of PE on ECCI, hypothesis H7b is rejected due to no significance.

The discrepancy between no significance statistical results and visual indications of moderating effects can be attributed to sample size, effect size, variability, model specification, and human interpretation. While graphs are useful for exploratory analysis, statistical tests provide a rigorous evaluation of hypotheses. Therefore, relying on statistical significance is crucial for drawing valid conclusions about moderating effects.

4.8 Hypotheses Summary

TABLE 4.6: Hypotheses Summary

Hypothesis	Statement	Result
H1a	Employee Work Volition is positively related to Entrepreneurial Self-Efficacy of female employees.	Supported
H1b	Career Adaptability is positively related to Entrepreneurial Self-Efficacy of female employees.	Supported
H1c	Career Anchor is positively related to Entrepreneurial Self-Efficacy of female employees.	Supported
H2a	Employee Work Volition is positively related to Psychological Empowerment of female employees.	Supported
H2b	Career Adaptability is positively related to Psychological Empowerment of female employees.	Supported
H2c	Career Anchor is positively related to Psychological Empowerment of female employees.	Supported
H3a	Employee Work Volition is positively related to Entrepreneurial Career Choice Intentions of female employees.	Supported
H3b	Career Adaptability is positively related to Entrepreneurial Career Choice Intentions of female employees.	Not supported

Continued Table 4.6 Hypotheses Summary

Hypothesis	Statement	Result
H3c	Career Anchor is positively related to Entrepreneurial Career Choice Intentions of female employees.	Supported
H4a	Entrepreneurial Self-Efficacy is positively related to Entrepreneurial Career Choice Intentions of female employees.	Supported
H4b	Psychological Empowerment is positively related to Entrepreneurial Career Choice Intentions of female employees.	Supported
H5a	Entrepreneurial Self-Efficacy mediates the relationship between Employee Work Volition and Entrepreneurial Career Choice Intentions of female employees.	Supported
H5b	Entrepreneurial Self-Efficacy mediates the relationship between Career Adaptability and Entrepreneurial Career Choice Intentions of female employees.	Supported
H5c	Entrepreneurial Self-Efficacy mediates the relationship between Career Anchor and Entrepreneurial Career Choice Intentions of female employees.	Supported
H6a	Psychological Empowerment mediates the relationship between Employee Work Volition and Entrepreneurial Career Choice Intentions of female employees.	Supported
H6b	Psychological Empowerment mediates the relationship between Career Adaptability and Entrepreneurial Career Choice Intentions of female employees.	Supported
H6c	Psychological Empowerment mediates the relationship between Career Anchor and Entrepreneurial Career Choice Intentions of female employees.	Supported
H7a	Glass Ceiling Syndrome will moderate the relationship between Entrepreneurial Self-Efficacy and Entrepreneurial Career Choice Intentions, such that; the relationship will be stronger for female employees with a higher perception of Glass Ceiling Syndrome.	Not supported
H7b	Glass Ceiling Syndrome will moderate the relationship between Psychological Empowerment and Entrepreneurial Career Choice Intentions, such that; the relationship will be stronger for female employees with a higher perception of Glass Ceiling Syndrome.	Not supported

Chapter 5

Discussion and Conclusion

5.1 Discussion

This chapter discusses the study's results by stating the outcome of every hypothesis (supported or not supported) and providing theoretical support and justification keeping in view the past literature. Overall, the proposed model was largely endorsed by achieved results. Out of a total of 19 hypotheses, 16 hypotheses were accepted and 3 were rejected. There were 11 direct hypotheses, 6 mediation hypotheses and 2 moderation hypotheses. This chapter concludes with a discussion of the theoretical, managerial, and practical implications of the research findings, followed by an outline of the study's limitations and potential avenues for future research.

This study has largely focused on testing both proximal and distal parts of SCCT. This is in comparison to past research which mostly focused on proximal factors of theory, ignoring distal parts ([Adebusuyi et al., 2022](#)). Further, it was aimed to test the interaction, mediation and moderation effects of intricate models ([BarNir et al., 2011](#); [Fitzsimmons & Douglas, 2011](#); [Pollack et al., 2012](#)). Further, to check the transition to entrepreneurship during the career path of female employees in a developing country, a newer variety of antecedents and outcomes were important to be explored ([Pérez-López et al., 2019](#)). It was meaningful to assess the level of empowerment, the extant of glass ceiling syndrome in the purview of the country's culture, and societal norms as recommended by researchers in the past ([Liguori et](#)

al., 2019) (Shakir, 2017). In this regard, specific economic sectors were selected, which have remained unexplored (Martínez-Fierro & Lechuga Sancho, 2021). To fill these major gaps, this study extends the past literature by checking the impact of various constructs, details of which are given below.

5.1.1 Impact of Employee Work Volition on Entrepreneurial Self-Efficacy

This study hypothesized a positive relationship between employee work volition and entrepreneurial self-efficacy (H1a), which was supported by the results. The findings indicate that female employees who exhibit high levels of work volition tend to develop stronger entrepreneurial self-efficacy. This supports the notion that entrepreneurial self-efficacy is influenced by volitional factors, as suggested by (To et al., 2020).

Further, work volition positively connects with social and cognitive constructs including domain self-efficacy, interests, goals and career decision self-efficacy (Duffy et al., 2014; Van Nguyen et al., 2021). The results prove that work volition has a linkage to the self-control perception of a person and has a positive association with entrepreneurial self-efficacy. Hence, employees may consider entrepreneurship to be a planned affair and its conduct can be greatly influenced through controlled volition, which is intrinsically intentional.

5.1.2 Impact of Career Adaptability on Entrepreneurial Self-Efficacy

This study also hypothesized that career adaptability positively influences entrepreneurial self-efficacy (H1b), which was confirmed by the results. The findings demonstrate that career adaptability enhances entrepreneurial self-efficacy, enabling employees to navigate changing work environments, regulate their career trajectory, and adapt to unforeseen events by modifying their career plans

([Rottinghaus, Buelow, Matyja, & Schneider, 2012](#)). This highlights the importance of career adaptability in fostering entrepreneurial self-efficacy, as it facilitates resilience, confidence, and mindset growth. The results show that individuals with high career adaptability are more likely to possess entrepreneurial self-efficacy, underscoring the interconnectedness and reciprocal reinforcement of these two concepts.

5.1.3 Impact of Career Anchor on Entrepreneurial Self-Efficacy

This study hypothesized a positive correlation between career anchor and entrepreneurial self-efficacy (H1c), which was confirmed by the research findings. The results showed a significant link between career anchor and entrepreneurial self-efficacy, indicating that individuals with a strong career anchor tend to have higher levels of entrepreneurial self-efficacy. Literature has argued that situations have a connection with intrinsic and extrinsic motivations and they also complement the behaviour of individuals ([Bowles & Polania-Reyes, 2012](#)). As per [Schein \(1980\)](#), people maintain peculiar career anchors which include values, motives and talents and relating motivation of employees, self-efficacy is a vital concept. The positive association between career anchor and entrepreneurial self-efficacy prove the point of past research that entrepreneurs trust the ability of their self-efficacy, are economically motivated and exercise freedom of choice ([Chinyamurindi & Shava, 2019](#)). In a nutshell, individuals with the right career anchor are more likely to have higher entrepreneurial self-efficacy.

5.1.4 Impact of Employee Work Volition on Psychological Empowerment

Further, as per the findings of this study, employee work volition has a positive association with psychological empowerment, hence hypothesis H2a is supported. As per available literature, the said association has not been studied much. However, the positive association of both constructs reinforce the elucidation of ([Chamberlin](#)

[et al., 2018](#)) that volition is related to psychological empowerment. Hence, the findings of this study contribute to the body of knowledge, as work volition emerges as a positive contributor to cultivating psychological empowerment in employees. Volition can thus, influence the individual's self-evaluation, which is linked to psychological empowerment. Further, volition can enhance intrinsic motivation, which drives psychological empowerment.

5.1.5 Impact of Career Adaptability on Psychological Empowerment

This study proposed that career adaptability is positively associated with psychological empowerment (H2b). The results of the study support it; hence the proposed hypothesis stands confirmed. Hence, in the light of the results, the conclusion of past studies is endorsed that career adaptability provides an individual necessary power and capability to prepare him/ her for future work demands and also enables adaptation to sudden changes in work conditions ([Yen et al., 2023](#)). It is thus evident that career adaptability helps individuals move through career transitions, leading to increased psychological empowerment and resilience. As career adaptability fosters proactive behaviour, such as seeking opportunities and developing new skills, which is the hallmark of psychological empowerment. Further, career adaptability promotes personal development and growth, leading to increased psychological empowerment.

5.1.6 Impact of Career Anchor on Psychological Empowerment

The study proposed that career anchor is positively associated with psychological empowerment (H2c). The results of the study supported the relationship between career anchor and psychological empowerment. Existing literature has supported the notion that career self-concepts or career anchors play a pivotal role in the association between organization and employee and that; these insights may contribute towards approaches of psychological empowerment ([Wils et al., 2010](#)). The

outcome of the association between given constructs reinforces the fact that a career anchor reflecting an individual's core career values can influence his/ her sense of purpose and meaning, ultimately leading to psychological empowerment.

5.1.7 Impact of Employee Work Volition on Entrepreneurial Career Choice Intentions

Further, as per the conclusions of this study, employee work volition has a positive association with entrepreneurial career choice intentions, hence hypothesis H3a is supported. In the light of Social Cognitive Career Theory, cognition has a noteworthy impact on the growth of promising attitudes of an individual towards entrepreneurship. It includes beliefs, experiences, personal disposition and knowledge (Bandura, 1991, 2012; Kuhl & Fuhrmann, 1998). As suggested in past research, volition acts as a disposition to transform entrepreneurship intentions into action (Hikkerova et al., 2016).

Hence, given constructs are related concepts that can influence each other for various reasons. First, work volition is linked to autonomy, a key aspect of entrepreneurial career choice. Second, employees having more work volition tend to be more proactive, a trait essential for entrepreneurial success. Thirdly, employees having more work volition tend to be more innovative, a trait that is highly valued in entrepreneurial careers.

5.1.8 Impact of Career Adaptability on Entrepreneurial Career Choice Intentions

This study hypothesized a positive relationship between career adaptability and psychological empowerment (H3b), but the results did not support this hypothesis, leading to its rejection. Despite the lack of significant findings, previous research has neglected to explore the relationship between career adaptability and entrepreneurship (Tolentino et al., 2014). However, the literature suggests that entrepreneurship is an adaptive behaviour driven by an individual's self-regulatory

capacity ([Savickas, 2013](#)), indicating that career adaptability may serve as a self-activating resource to foster entrepreneurial intentions and venture creation.

The negative outcome of the association of these constructs may be due to various cultural and societal factors. First, Pakistani females may face pressure to prioritize family and domestic responsibilities over career aspirations, making entrepreneurial pursuits less feasible. Second, females of Pakistan may face challenges in accessing funding, networks and other resources, making career adaptability less effective in pursuing entrepreneurial goals. Third, females in Pakistan may be discouraged from undertaking entrepreneurial careers due to societal expectations and cultural norms that prioritize their traditional gender roles. Lastly, females in Pakistan may prioritize work-life balance and family responsibilities over entrepreneurial pursuits.

5.1.9 Impact of Career Anchor on Entrepreneurial Career Choice Intentions

The association between career anchor and entrepreneurial career choice intentions was supported, hence supporting H3c. Though there are eight general competencies of career anchors, the relationship of given constructs will depend upon specific career anchors and its alignment with entrepreneurial values. Though, the results of the study generally yield a positive impact of career anchor on entrepreneurial career choice, however, the association between the two can be complex.

As per the literature, career anchor has not been studied before as a predictor of entrepreneurial behaviour ([Saif, 2022](#)). It was emphasized to check the role of career anchor's influence on career choices to make career planning more effective. A possible relationship is of entrepreneurial career anchor in which individuals are more likely to pursue entrepreneurial careers, as they are driven by a desire to create and build their ventures. Further, individuals with freedom/ autonomy career anchors will value pursuing entrepreneurial careers, which offer greater flexibility and independence.

5.1.10 Impact of Entrepreneurial Self-Efficacy on Entrepreneurial Career Choice Intentions

This study hypothesized a positive relationship between entrepreneurial self-efficacy and entrepreneurial career choice intentions (H4a), which was confirmed by the results. The findings align with previous research suggesting that motivation is a key driver of entrepreneurial intentions ([Chen et al., 1998](#); [Gielnik et al., 2020](#)). Entrepreneurial self-efficacy provides individuals with the confidence and assurance that they possess the necessary skills and abilities to successfully perform entrepreneurial tasks and roles ([To et al., 2020](#)), thereby fostering intentions to pursue an entrepreneurial career. Hence, the outcome of the results supports the past findings.

There are many ways through which entrepreneurial self-efficacy influences entrepreneurial career choice intentions. First, it boosts confidence in one's capability to commence a business, making indentureship a more appealing career choice. Second, higher self-efficacy leads to a willingness to take risks. Third, it makes the individuals better at identifying business opportunities and have the confidence to pursue them. Fourth, it helps individuals to bounce back from setbacks or failures, a crucial ability for entrepreneurs. Lastly, it fosters a desire for independence and autonomy, thereby; preferring entrepreneurship over traditional employment.

5.1.11 Impact of Psychological Empowerment on Entrepreneurial Career Choice Intentions

Further, as per the conclusions of this study, psychological empowerment has a positive association with entrepreneurial career choice intentions, hence hypothesis H4b is supported. Researchers have described psychological empowerment as an active orientation and an increased intrinsic task motivation ([Spreitzer, 1995](#)). Similarly, research has established that entrepreneurship calls for both intrinsic and extrinsic motivation ([Bénabou & Tirole, 2003](#)) and a person's desires and willingness compel him/ her to exhibit entrepreneurial activities ([Haivas et al.,](#)

2013). In recent research, a positive association of these two constructs has been found (Sengar et al., 2020).

There are some ways through which psychological empowerment can influence entrepreneurial career choice. First, it boosts confidence in one's capability to run a business. Second, it fosters a desire for independence and autonomy. Third, psychological empowerment helps individuals connect their work to their values and passions, making entrepreneurship a more appealing career choice. Fourth, it enhances confidence in one's skills and abilities, essential for entrepreneurial success. Lastly, it encourages individuals to be proactive by taking initiative and pursuing opportunities, a key aspect of entrepreneurship.

5.1.12 Mediation of Entrepreneurial Self-Efficacy between Employee Work Volition, Career Adaptability, Career Anchor and Entrepreneurial Career Choice Intentions

The current study proposed that entrepreneurial self-efficacy mediates the association between selected cognitive psychological attributes (employee work volition, career adaptability, career anchor) and entrepreneurial career choice intentions (H5a, H5b and H5c). The results of the study do correspond positively; hence the proposed hypotheses stand accepted. SCCT (Lent et al., 1994) maintains self-efficacy as a vital mediator which plays a crucial role between learning experiences and entrepreneurial intentions. Being a key psychological construct, entrepreneurial self-efficacy has a noteworthy role in the field of entrepreneurship (Miao et al., 2017).

Mediation results concerning predicting variables confirm that entrepreneurial self-efficacy offers a sound bridge and enhances the impact on entrepreneurial career choice intentions. The more autonomy and control individuals have at work, the more confident they become in their entrepreneurial abilities, which in turn increases their intention to pursue an entrepreneurial career path. Previous research has established that entrepreneurial self-efficacy plays a mediating role in

the relationship between career adaptability and entrepreneurial intentions (Tolentino, 2014). Moreover, the mediating effect of entrepreneurial self-efficacy between career anchor and entrepreneurial career choice intentions underscores the significance of aligning one's career aspirations with entrepreneurial values and developing the confidence and skills necessary for entrepreneurial pursuits through training, mentorship, or experience. Common to all predictors is to encourage individuals to leverage their entrepreneurial self-efficacy to pursue entrepreneurial career paths.

5.1.13 Mediation of Psychological Empowerment between Employee Work Volition, Career Adaptability, Career Anchor and Entrepreneurial Career Choice Intentions

This study proposed that psychological empowerment mediates the association between selected cognitive psychological attributes (employee work volition, career adaptability, career anchor) and entrepreneurial career choice intentions (H6a, H6b and H6c). The results of the study do correspond positively; hence the proposed hypotheses stand accepted. In recent studies, it has been established that psychological empowerment offers positive mediation effects on various predictors and outcome variables (Atoum et al., 2018; Yaghi, 2016; Ahmed et al., 2023; Dust et al., 2018). This study made an effort to research the direct and mediating relationship of newer psychological cognitive attributes selected for this study and see its impact on entrepreneurial career choice intentions, which have not been studied before. The results of the mediation effect of psychological empowerment are hence encouraging.

According to the Social Cognitive Career Theory (SCCT) (Lent et al., 1994), outcome expectations can serve as an additional mediator, alongside self-efficacy, to enhance the mechanisms linking learning experiences to career-related behaviours (Wang et al., 2018). This suggests that both self-efficacy and outcome expectations play important roles in mediating the relationship between learning experiences

and career-related behaviours. It is proved that employees with stronger work volition will be psychologically empowered to make occupational choices (Du et al., 2015). Besides, positive outcomes of career adoption can also lead to cognitive flexibility, openness, resilience and empowerment to opt for entrepreneurship. Similarly, career anchor encourages employees to utilize intrinsic motivation. Overall, mediation of psychological empowerment has a positive impact on making career decisions, especially for those who move from traditional employment to entrepreneurship.

5.1.14 Moderating Role of Glass Ceiling Syndrome between Entrepreneurial Self-Efficacy, Psychological Empowerment and Entrepreneurial Career Choice Intentions

In this study, the glass ceiling syndrome was considered a moderator of the relationship between Entrepreneurial Self-Efficacy, Psychological Empowerment and Entrepreneurial Career Choice Intentions and weighed its strength for female employees having a higher perception of glass ceiling syndrome. In the overall theoretical framework of SCCT, glass ceiling syndrome was considered as a proximal environment or background influencer i.e.; barrier or support. The results of the study did not support both hypotheses (H7a, H7b); hence the proposed hypotheses stand rejected. In the cultural settings of Pakistan, earlier researchers have mostly studied the glass ceiling as a predictor to check its impact on varying outcomes such as women's turnover intentions (Masood, Nawab, & Shafi, 2021), and women's career satisfaction (Khalid & Ayub, 2017).

As per available literature and scholars' knowledge, the moderation effect of GCS has not been tested before. The outcomes of these hypotheses are hence counterintuitive, as it is revealed that the glass ceiling does not have a pronounced effect on the female employees of private service sector organizations while deciding choice goals or actions. There could be various reasons for the insignificant results and rejection of hypotheses. First, probable presence of a glass ceiling throughout the

social structure viz helplessness faced by Pakistani females owing to cultural barriers, which may not let them escape from discrimination. Second, It may be due to varying organizational policies prevailing in various organizations across all regions of Pakistan, each may pose a unique environment and hidden challenges for the female employee in the path of their career. Third, being the masculine society, in Pakistan, family and social pressures may not encourage women to prioritize entrepreneurship. Lastly, miscellaneous factors could be socioeconomic background, lack of confidence, limited access to professional networks, gender stereotypes and bias, fear of failure, and work-life balance concerns.

5.1.15 Theoretical Contributions

This research makes a significant contribution to the fields of entrepreneurship and career development, particularly among female employees, by expanding existing knowledge and offering valuable theoretical insights. By applying Social Cognitive Career Theory (SCCT) to the context of entrepreneurship, this study responds to the calls of various researchers (Carsrud et al., 2009; Linan & Fayolle, 2015; Liguori et al., 2019) and adds diversity to the existing body of work (Vanevenhoven & Liguori, 2013; Lanero et al., 2016; Liguori et al., 2019). The findings demonstrate the effectiveness of SCCT in understanding entrepreneurial career development and intentions, highlighting the crucial roles of self-efficacy, outcome expectations, and goals in shaping entrepreneurial career aspirations and behaviors.

Second, the vigorous ability of overarching theory (SCCT) has been effectively tested to see its effects in shaping entrepreneurial career choice intentions and career development of females, such as: (1) Self-efficacy beliefs help females develop a strong sense of self-efficacy, enabling them to pursue entrepreneurial goals with confidence, (2) Various environmental and background factors, including prior work experience, exposure to family businesses, and social environment, have a profound influence on the development of entrepreneurial self-efficacy and outcome expectations in women, (3) The outcome of study explains how person inputs and environmental inputs influence entrepreneurial intentions and actions in females,

(4) The theoretical framework of SCCT guides females in exploring their interests, values, and abilities, leading to informed career choices and development in entrepreneurship.

Third, by using the theoretical framework of SCCT, the outcome of the study fosters career resilience in females by emphasizing the importance of learning from failures, seeking feedback, and persisting through challenges in entrepreneurial endeavours. It emphasizes the role of self-efficacy and psychological empowerment and encourages females to take ownership of their career growth, set goals, and strive for excellence in entrepreneurial pursuits. Above all, it inspires females to adopt an entrepreneurial mindset, viewing challenges as opportunities for growth and innovation in their careers. Personal inputs such as employee work volition, career anchor and career adaptability can enhance self-efficacy and empower the employees to develop entrepreneurial career choice intentions.

Fourth, distal parts of the theory have also been focused instead of merely proximal facets, as indicated by past research ([Adebusuyi et al., 2022](#)). In Social Cognitive Career Theory (SCCT), proximal and distal variables refer to the different levels of influence on career development and behaviour. Proximal variables include self-efficacy (confidence in one's abilities), outcome expectations (anticipated consequences of actions), goals (personal and career aspirations) and feedback (responses to actions and progress). Distal variables include personal, environmental inputs and contextual factors, which were hypothesized in the current study. These distal variables indirectly influence career behaviour and development by shaping the proximal variables, providing the context in which career decisions and actions are made.

Fifth, the study settings offer to test a variety of constructs which may help female employees of private sector organizations in Pakistan to shape career development and decision-making processes. This research explores the complex relationships between various psychological factors including work volition, career adaptability, career anchor and their impact on entrepreneurial career choice intentions. Additionally, the study examines the mediating roles of entrepreneurial self-efficacy and psychological empowerment, which are closely linked and interdependent concepts. Notably, the research investigates the moderating effect of glass ceiling

syndrome, a previously untested factor, addressing a significant gap in existing literature. This study responds to previous calls for more comprehensive models that account for interaction, mediation, and moderation effects (BarNir et al., 2011; Fitzsimmons & Douglas, 2011; Pollack et al., 2012; Linan & Fayolle, 2015).

Sixth, the outcome of the relationship of various antecedents, mediation, moderation and outcome provides a reasonable yardstick to better understand the standing of female employees in developing countries. These female employees working at traditional workplaces may opt to choose entrepreneurship at some stage of their careers. Since entrepreneurship offers flexible schedules, it may allow them to balance family and personal responsibilities. Further, they may get relieved from the hurdles of gender bias or stereotypes in certain private organizations and can exercise will and control over their work and decisions, free from organizational constraints.

Seventh, this study may assist in assessing relevant factors which may foster the spirit of entrepreneurship amongst Pakistani females who may be aspiring to become entrepreneurs at some stage of their careers. The cognitive psychological attributes of this study can be very helpful for females for personal growth, continuous learning and skill development. The study offers lessons for the females to exercise flexibility, and adapt to changing circumstances in their careers for a more fulfilling and meaningful career path. Hence, female professionals will be able to fulfil their desire to pursue their passion and innovative ideas, which may not be possible within traditional organizational structures.

Eighth, the outcome of the study may shed light on the peculiarities of female professionals of the country working in private organizations, their level of psychological empowerment and their mindset to opt for entrepreneurship as an alternative career choice at some stage of their career or not. The approach of Pakistani female professionals working in private organizations reveals their desire to identify business opportunities and pursue them to supplement income, achieve autonomy and improve financial independence. They can gradually undertake a transition from traditional employment to entrepreneurship, pursuing ventures aligned with their passions and interests.

Ninth, the current study contributes to the global applicability of Social Cognitive Career Theory. In the Pakistani context, an endeavor has been made to highlight the importance of considering cultural, social, and economic factors when examining entrepreneurial career choices and intentions. The study has contextualized how its principles, such as self-efficacy and outcome expectations, can operate in cross-cultural and diverse environments. By examining the interplay between individual and contextual factors, the study highlights the importance of considering cultural, social, and economic factors when applying Social Cognitive Career Theory globally. The study's findings inform the development of career development initiatives that cater to the unique needs of women entrepreneurs in diverse cultural contexts.

Lastly, in the current study, female employees of service sector organizations were carefully weighed; as to how far the glass ceiling syndrome, acting as a proximal environmental influence (support or barrier during choice-making) may influence them to opt for entrepreneurship as an alternative career choice and does it contribute to strength, opportunity or threat. Though the direct effect of predictors, and mediators with entrepreneurial career choice intentions has been supported in the results, however, the moderating effect of the glass ceiling syndrome has not been supported. This indicates that the proximal environmental influence did not contribute as a barrier towards the relationship between entrepreneurial self-efficacy, psychological empowerment and entrepreneurial career choice intentions.

5.2 Managerial Implications

The present study may offer useful insights for female professionals, who may opt for entrepreneurship as a career choice at some stage of their professional life. By considering these implications, researchers, training institutions, policymakers and government officials can effectively formulate potent measures for developing entrepreneurial career intentions in females, promoting gender diversity in entrepreneurship and unlocking economic growth. These implications can also be directly useful for female professionals who may consider opting for entrepreneurship at some stage of their careers.

First, for government and academic institutions, the outcome of the study is expected to produce worthwhile conclusions for concerned officeholders of the government to positively uplift the role of females in entrepreneurship through the right policies, initiatives or programs, such as: (1) Through training and mentorship programs, the government may offer entrepreneurship coaching to selected female employees tailored to women's needs, (2) Organize events, conferences, and workshops to connect interested female professionals with investors, mentors, and peers, (3) Establish programs providing resources, funding, and support specifically for female entrepreneurs, (4) Promote successful female entrepreneurs as role models to inspire and motivate others, , (5) Conduct studies and gather data to understand the needs and challenges of female employees aspiring to become entrepreneurs and make informed policy decisions, and lastly, (6) Develop programs that support female entrepreneurship, such as incubators, women's business development centers, accelerators, or funding initiatives.

Second, Pakistani families, educational institutions and policymakers should encourage an entrepreneurial mindset in the females and foster a culture that supports innovation, risk-taking, and creativity. In addition, it is important to encourage females to progressively develop a strong sense of self-efficacy and confidence in their abilities. In this regard, educational and training institutions should offer a wide range of workshops, courses, and certification programs on entrepreneurship, business management, and skills development and facilitate organizing networking events, conferences, and trade shows.

Third, private service sector organizations may offer flexible work arrangements and support for the entrepreneurial pursuits of their female employees, to comply with the government's overall policy to enhance the level and extent of entrepreneurship in the country. Some of the measures are: (1) Allowing flexible schedules, telecommuting, or part-time work, (2) Enabling two or more employees to share a full-time role, (3) Providing paid leave for female employees to pursue entrepreneurial ventures or offering a leave of absence to focus on their business, with the option to return to their job, (4) Creating flexible career paths that allow for entrepreneurial pursuits alongside traditional career advancement, (5) Adjusting performance metrics to accommodate entrepreneurial pursuits, (6) Create a

bias-free environment that encourages females to pursue entrepreneurial careers, (7) Expose females to entrepreneurial experiences through internships, projects, or competitions.

Fourth, the employees must consider giving due recognition to underlying cognitive psychological factors generating self-belief or perception in shaping affective and behavioural components of attitude. Besides the predictors of the current study, other attributes which may be considered by female employees to inculcate the spirit of entrepreneurship could be risk tolerance, creativity, resilience, growth mindset, autonomy, intrinsic motivation, goal-oriented thinking, problem-solving skills, adaptability, confidence in own abilities and judgement, innovative thinking, proactivity, flexibility, passion etc.

The study's findings suggest that the glass ceiling syndrome does not significantly impact the relationship between entrepreneurial self-efficacy, psychological empowerment, and entrepreneurial career choice intentions. This indicates that women may not perceive the glass ceiling syndrome as a dominant factor when considering entrepreneurship as a career option, and instead, may be more influenced by their beliefs in their abilities and sense of empowerment. For policymakers, it may be interesting to note that, in Pakistani females, internal motivation, entrepreneurial self-efficacy, growth mindset, resilience and personal control may be more strongly pronounced to contribute towards an entrepreneurship mindset.

Sixth, this study offers interaction of more intricate models of interaction, moderation and mediation concerning entrepreneurial intentions as a career, as emphasized by past researchers. This will greatly aid female employees in comprehending the power of 'self' to determine their future path. The findings of the study reveal a great deal about the peculiarities and strengths of Pakistani females, which could be useful for the researchers, such as: (1) They possess passion, purpose, driving motivation and commitment, which can align them with entrepreneurial pursuits, (2) They possess a growth mindset, to embrace challenges, learn and continuously develop their skills and knowledge, (3) They are confident and ambitious to set goals, creating a roadmap for entrepreneurial success and lastly, (4) They possess a strong self-belief, enabling to trust their abilities and judgement, crucial for entrepreneurial endeavours.

Seventh, the research findings could be helpful as regards their practical applications of findings of research by offering concrete strategies for organizations to reduce glass ceiling barriers. As regards organizational strategies, it could contribute to: (1) Establishing formal mentoring programs that pair female employees with senior leaders or mentors, providing guidance, support, and networking opportunities, (2) Designing and implementing flexible work policies and arrangements, such as telecommuting, flexible hours, or job sharing, to help women balance work and family responsibilities, (3) Design leadership development programs specifically for women, focusing on skills development, networking, and career advancement, (4) Provide unconscious bias training for all employees, particularly those in leadership positions, to raise awareness and reduce biases, (5) Implement diversity and inclusion initiatives that promote a culture of inclusivity, respect, and equal opportunities.

Finally, considering the results and findings of the study, it can be safely concluded that entrepreneurial career choice intentions may emerge as an attractive alternative option for female employees of private services sector organizations in Pakistan, which can ultimately contribute to their occupational promotion in a befitting manner. In the present era, there is a growing trend that more number of females are choosing entrepreneurship as a career option. This may be due to dissatisfaction with corporate careers, desire for autonomy and independence, achieving flexibility and work-life balance, urge to exploit their entrepreneurial potential and access to resources, support and opportunities.

5.3 Limitations and Future Research Directions

Considering the limitations of the current study, several promising future research directions may be considered. Recognizing the limitations of this study may help to conceptualize the findings and interpret them realistically and acknowledging limitations may demonstrate transparency, thereby; enhancing the credibility of the research. Further, it will also help in addressing potential biases and improve the validity of findings. The future directions for research is also important as it may guide the direction for subsequent studies, lead to discoveries, refining theory

and practice. Most importantly, it will help address the gaps in the existing literature, advancing our understanding of the current research area and overall promoting rigour in the research.

Firstly, to enhance the generalizability of the findings, future research may explore the possibility of imitating the survey by using a larger and more diverse sample across various regions of Pakistan. In the current study, female employees of only major cities across all regions of Pakistan were considered, not necessarily depicting the population of minor cities, and towns. This implies replicating the current study with different samples, background and contextual factors, or methods to confirm and expand the findings. Other specific service sectors including transport, tourism, marketing, audit and taxation may be considered.

Secondly, the current study did not consider the glass ceiling syndrome by incorporating minorities besides female employees, which is equally applicable considering the diverse sampling. The selection of female respondents was intentionally kept due to the focus and scope of the study. Future studies may focus on this very aspect and recruiting participants from various minority groups or factions with different religious and social backgrounds, ages, and genders can enhance the external validity.

Thirdly, besides predictors of the current study i.e; employee work volitions, career adaptability and career anchor, other cognitive psychological factors may be incorporated into future studies such as career adaptability, career anchor, career orientation, occupational commitment, risk tolerance, creativity, resilience, growth mindset, confidence in own abilities and judgment, innovative thinking, proactivity, flexibility, passion etc. Similarly, besides ECCI, other behavioural outcomes, choice goals or actions such as career success, venture creation/ performance, autonomy, entrepreneurial alertness, and team performance may be studied.

Fourthly, besides the existing moderation of glass ceiling syndrome, the moderating effects of various cultural dimensions on the relationship between various cognitive psychological factors and choice goals or actions may proffer solid insights. The cultural dimensions may include Hofstede's and Trompenaars' dimensions. It is important to study culture for several reasons: (1) Culture provides context

to behaviours, attitudes and values and helps researchers understand why people think and act in a certain way, (2) Ignoring culture can lead to incomplete or misleading findings, (3) Cultural considerations inform practical interventions, (4) Including culture promotes diversity, inclusivity and reduce researcher bias.

Fifthly, in the current study, only private services sector organizations working in various regions of Pakistan were considered. In future studies, a comparative view of the public and private service sector organizations may be studied, which can give a clear view of the employees' mindset regarding choosing entrepreneurship as an alternative career choice or not. Similarly, besides conducting country-specific research (the current study being Pakistan-specific), cross-cultural research in different cultural contexts can offer more useful insights and extend the generalizability of the findings of cross-cultures. Collaborative research may be conducted through collaboration with other teams to expand the diversity of the research.

Sixthly, the current study was a time-lagged study in which data was collected at two or more points in time, with a specific time gap between measurements. Time-lagged studies aim to establish causal relationships between variables, examining how changes in one variable affect another variable over time. For future research, it is recommended to conduct a series of studies on the given phenomenon using cross-sectional time horizons and multiple-method approaches. It will help to triangulate findings and increase the validity of the research.

Seventhly, in the organizational context, the current study mainly focused on private companies. Future research may be carried out in a much diverse and larger framework to include: (1) public sector organizations (to include ministries, departments and agencies), (2) private sector organizations including small and medium enterprises (SMEs), multinational corporations (MNCs), (3) family-owned businesses with their unique dynamics and challenges, (4) Non-governmental organizations, (5) education and health care institutions, (6) technology and IT organizations (software houses, startups and e-commerce companies) and, (7) manufacturing and industrial organizations, government-owned enterprises, joint ventures, social enterprises and startups. Lastly, by conducting a meta-analysis to synthesize findings across multiple studies relevant to Pakistani populations and

contexts, generalizability can be enhanced. This will help in providing a comprehensive understanding of the phenomenon under study, integrating findings from multiple studies. Usually, the estimates of the meta-analysis are more precise than individual studies, providing more accurate information. It can also reveal valuable insights into cultural influences and organizational behaviour. Later, the meta-analysis can be further extended across various cultures and regions to arrive at useful findings and recommendations.

5.4 Conclusion

The current study examines when and why female employees may opt for entrepreneurship at some stage. Using the theoretical framework of social cognitive career theory, the study has investigated the impact of certain potent cognitive psychological attributes (employee work volition, career adaptability and career anchor) on entrepreneurial career choice intentions, the mediating role of entrepreneurial self-efficacy, psychological empowerment and the moderating effect of glass ceiling syndrome, acting as a proximal environmental influencer i.e.; support or barrier. Being a quantitative study, the study offers useful insights into female employees working in private services sector organizations across various regions of Pakistan.

The findings suggest that Pakistani female employees' entrepreneurial career choice intentions are shaped by a complex interplay of personal, cultural and environmental factors including family support, education, societal norms and self-efficacy. The findings of the results have addressed all research questions effectively. Most of the results of predictors and mediation reveal a positive relationship with entrepreneurial career choice intentions. However, the relationship of career adaptability with entrepreneurial career choice intentions was not supported. It may be because of collectivist culture, social expectations of society from females, limited women's empowerment, and limited exposure to entrepreneurship.

Inconsistent effects have been observed regarding the moderation effect of the glass ceiling syndrome on the relationship between entrepreneurial self-efficacy,

psychological empowerment and entrepreneurial career choice intentions. Hence, the findings do not support the research questions of moderation. It could be due to various reasons. First, it may be due to cultural nuances, as the glass ceiling barriers may manifest differently across various regions, industries, occupations, or organizations. Secondly, it could be due to individual differences, as women's experiences and perceptions of glass ceiling barriers may vary based on factors like education, socioeconomic status, or personal characteristics. Lastly, the patriarchal nature of Pakistani society and cultural norms may influence women's career choices and experiences of glass ceiling barriers.

The results highlight the importance of removing cultural and societal barriers, coupled with friendly government policies to pursue entrepreneurial careers. It is of utmost important to encourage the culture of entrepreneurship in society through education, training, and fostering support networks. By understanding these factors, educators, policymakers and organizations can develop targeted interventions to empower Pakistani females to realize their entrepreneurial potential, contributing to the growth and development of Pakistan's economy. The study expands the understanding and application of social cognitive career theory and offers theoretical and practical insights. Overall, the findings, limitations and future directions of the current study are expected to extend good guidance for the researchers, practitioners and policy-makers.

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Appendix-A

Dear Respondent,

My name is **Muhammad Ali Malik**. I am a research scholar of Ph.D. HRM, undergoing a program at Capital University of Science and Technology Islamabad. I am collecting data for my research thesis with the title, **“Interplay of Cognitive Psychological Factors to Burgeon Entrepreneurial Career Choice Intentions in the Realm of Glass Ceiling Syndrome”**.

I have enclosed a questionnaire having seven sections. It will approximately take about 20-30 minutes to furnish the information, which will be very valuable for the findings of my study. I assure you that data will be kept confidential and will only be used for any other purpose but academic use. To ensure anonymity, you may not write your name or the name of the organization anywhere in the questionnaire.

Thanks a lot for your help and support!

Sincerely,

Muhammad Ali Malik

Ph.D (HRM) Research Scholar

Email: guides4352@gmail.com

Faculty of Management and Social Sciences

Capital University of Science and Technology Islamabad, Pakistan.

Section 1: Demographics

Gender	1- Male 2- Female
Age(years)	1 (18-25) 2 (26-33), 3 (34-41), 4 (42-49), 5 (50-above)
Qualification	1 (Bachelor), 2 (Master), 3 (MS/M.Phil.), 4 (PhD)
Experience(years)	1 (1-5), 2 (6-11), 3 (12-17), 4 (18 and greater)
Position	1 (Novice), 2, (Asstt Manager), 3, (Manager), 4, (Senior Manager), 5 (Director)
Duration of Service	1, (Less than 2 years), 2, (2-5), 3, (6-11), 4, (12-17), 5, (18 years and above)
Task Complexity/ Type	1 (Easy), 2 (Routine), 3 (Challenging), 4 (Complex)
Type of Services Sector	1 (Estate/ Construction), 2 (IT), 3 (Engineering), 4 (Education), 5 (Audit, Account & Taxation), 6 (Banking), 7 (Other/ Business services)

Section 2: Employee Work Volition

Please tick the relevant choices: 1= strongly disagree, 2= Disagree, 3 = Neutral, 4= Agree, 5= Strongly Agree.

Sr. No.	Statement					
1	I've been able to choose the jobs I wanted.	1	2	3	4	5
2	I can do the kind of work I want, despite external barriers.	1	2	3	4	5
3	I feel total control over my job choices.	1	2	3	4	5
4	I've learned how to find my own way through the world of work.	1	2	3	4	5
5	I feel able to change jobs if I want to.	1	2	3	4	5
6	When looking for work, I'll take whatever I can get.	1	2	3	4	5

7	I feel that outside forces have really limited my work and career options.	1	2	3	4	5
8	Negative factors outside my personal control had a large impact on my current career choice.	1	2	3	4	5

Section 3: Career Adaptability

Please tick the relevant choices: 1= strongly disagree, 2= Disagree, 3 = Neutral, 4= Agree, 5= Strongly Agree.

Sr. No.	Statement					
1	I am good at adapting to new work settings.	1	2	3	4	5
2	I can adapt to change in my career plans.	1	2	3	4	5
3	I can overcome potential barriers that may exist in my career.	1	2	3	4	5
4	I enjoy trying new work-related tasks.	1	2	3	4	5
5	I can adapt to change in the world of work.	1	2	3	4	5
6	I will adjust easily to shifting demands at work.	1	2	3	4	5
7	Others would say that I am adaptable to change in my career plans.	1	2	3	4	5
8	My career success will be determined by my efforts.	1	2	3	4	5
9	I tend to bounce back when my career plans don't work out quite right	1	2	3	4	5
10	I am rarely in control of my career.	1	2	3	4	5
11	I am not in control of my career success.	1	2	3	4	5

Section 4: Career Anchor

Please tick the relevant choices: 1= strongly disagree, 2= Disagree, 3 = Neutral, 4= Agree, 5= Strongly Agree.

Sr. No.	Statement					
1	I dream of having a career that will allow me the freedom to do a job my own way, on my own schedule.	1	2	3	4	5
2	I am always looking for ideas that will permit me to start my own enterprise.	1	2	3	4	5
3	I dream of a career in which I can solve problems or win in situations that are extremely challenging.	1	2	3	4	5
4	I will feel successful in my career only if I can develop my technical or functional skills to a very high level of competence.	1	2	3	4	5
5	Building my own business is more important to me than achieving a high-level managerial position in someone else's organization.	1	2	3	4	5
6	I will feel successful in my career only if I have succeeded in creating or building something that is entirely my own product or idea.	1	2	3	4	5
7	The chance to do a job my own way, free of rules and constraints, is more important to me than security.	1	2	3	4	5
8	I am most fulfilled in my work when I have been able to use my special skills and talents.	1	2	3	4	5
9	I seek out work opportunities that strongly challenge my problem-solving and/or competitive skills.	1	2	3	4	5
10	Working on problems that are almost unsolvable is more important to me than achieving a high-level managerial position.	1	2	3	4	5

Section 5: Entrepreneurial Self-Efficacy

Please tick the relevant choices: 1= strongly disagree, 2= Disagree, 3 = Neutral, 4= Agree, 5= Strongly Agree.

Sr. No.	Statement					
1	I can originate new ideas and products.	1	2	3	4	5
2	I can react quickly to take advantage of business opportunities.	1	2	3	4	5
3	I can tolerate unexpected changes in business conditions.	1	2	3	4	5
4	I can work productively under continuous stress, pressure and conflict.	1	2	3	4	5
5	I can react quickly to unexpected change and failure.	1	2	3	4	5
6	I can identify and build management teams.	1	2	3	4	5
7	I can tap the expertise of others.	1	2	3	4	5
8	I can persuade others to accept my viewpoint.	1	2	3	4	5
9	I can formulate a set of actions in pursuit of opportunities.	1	2	3	4	5
10	I can articulate vision and values of the organization.	1	2	3	4	5
11	I can develop a working environment that encourages people to try out something new.	1	2	3	4	5
12	I can encourage people to take initiatives and responsibilities for their ideas and decisions, regardless of outcome	1	2	3	4	5

Section 6: Psychological Empowerment

Please tick the relevant choices: 1= strongly disagree, 2= Disagree, 3 = Neutral, 4= Agree, 5= Strongly Agree.

Sr. No.	Statement					
1	I am confident about my ability to do my job.	1	2	3	4	5
2	I have significant autonomy in determining how I do my job.	1	2	3	4	5
3	My job activities are personally meaningful to me.	1	2	3	4	5
4	I can decide on my own how to go about doing my own work.	1	2	3	4	5
5	I have considerable opportunity for independence and freedom in how I do my job.	1	2	3	4	5
6	I have mastered the skills necessary for my job.	1	2	3	4	5
7	The work I do is meaningful to me.	1	2	3	4	5
8	I am self-assured about my capabilities to perform my work activities.	1	2	3	4	5

Section 7: Glass Ceiling Syndrome

Please tick the relevant choices: 1= strongly disagree, 2= Disagree, 3 = Neutral, 4= Agree, 5= Strongly Agree.

Sr. No.	Statement					
1	My work performance is fairly evaluated.	1	2	3	4	5
2	There are few career opportunities for me.	1	2	3	4	5
3	There is gender discrimination in my workplace.	1	2	3	4	5
4	I am not assigned to high visibility positions.	1	2	3	4	5
5	I have to work extra hard to be recognized.	1	2	3	4	5
6	I am not given support to balance multiple roles.	1	2	3	4	5
7	I am not respected by male colleague.	1	2	3	4	5

Section 8: Entrepreneurial Career Choice

Intentions

Please tick the relevant choices: 1= strongly disagree, 2= Disagree, 3 = Neutral, 4= Agree, 5= Strongly Agree.

Sr. No.	Statement					
1	I'm ready to do anything to be an entrepreneur.	1	2	3	4	5
2	My professional goal is to become an entrepreneur.	1	2	3	4	5
3	I will make every effort to start and run my own venture.	1	2	3	4	5
4	I am determined to create a venture in the future.	1	2	3	4	5
5	I have very serious thoughts of starting a venture.	1	2	3	4	5
6	I have a strong intention to start a venture some-day.	1	2	3	4	5