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ENTREPRENEURIAL INTENTION AND ENTREPRENEURIAL ATTITUDES AMONG RURAL TUNISIAN WOMEN

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DEDICATION

First and foremost, I would like to thank God who gave me the strength and the patience to accomplish this work.

I dedicate this work to my parents and my dear sister all the words in this world cannot express the immense love that I have for them, nor the deep gratitude that I show them for all the efforts and the sacrifices that they have never ceased to make for my education and my well-being. It is thanks to their encouragement that I opted for this noble profession, and it is thanks to their criticisms that I realized myself.

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ABBREVIATIONS

EA: Entrepreneurial Attitude

EI: Entrepreneurial Intentions

FS: Family Support

GDP: Gross Domestic Product

GE: Government Effectiveness

GEM: Global Entrepreneurship Monitor

IFAD: International Fund for Agricultural Development

ILO: International Labor Organization

MENA: Middle Eastern and North Africa

MWE's: Migrant Women Entrepreneurs

ND: Necessity Driven

OD: Opportunity Driven

OECD: The Organization for Economic Cooperation and Development

PBC: Perceived Behavioral Control

RT: Risk Taking

SME: Small and Medium Enterprises

SN: Subjective Norms

TRA: Theory of Reasoned Action

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1. INTRODUCTION

Entrepreneurship has long been recognized as a crucial contributor to employment, innovation, and long-term economic growth and development (Langevang & Gough, 2012; Meyer & Meyer, 2017). However, during the 1980s period of global stagflation and severe unemployment, a fresh focus was placed on the importance of entrepreneurship and small enterprises. It has become clear that the primary drivers to economic growth are no longer giant corporations, but rather small and medium-sized firms (SMEs) that contribute significantly to the Gross Domestic Product (GDP) of specific nations. Globally, big industries have been changing to smaller, more resilient business models, and a substantial body of literature has arisen since the 1970s referring to the role and contribution of smaller entrepreneurial enterprises in economies (Toma, Grigore, & Marinescu, 2014).

The entrepreneurship literature has grown significantly over the last twenty-five years, with researchers investigating a wide range of topics range from exploring opportunities to having entrepreneurial intentions for founding, operating, and expanding a new business, as well as the factors (e.g., personal, environmental and institutional) that influence the survival, growth, competitiveness, and sustainability of these enterprises (Audretsch, Keilbach, & Lehmann, 2006). One area of research that has lately piqued the interest of both academics and policymakers is women's entrepreneurship, since some researchers have noticed that many of the challenges that impact entrepreneurship have a gender component to them (Pathak, Goltz, & Buche, 2013). For example, stereotyped conceptions of entrepreneurs are more male-oriented, while women are less likely to be entrepreneurs. Furthermore, women entrepreneurs have increased social identities such as wives and moms, which may contribute to the perception that women's duties are to be caregivers or housewives rather than company owners. Multiple identity links can either hinder or aid women's entrepreneurial efforts (Chasserio, Pailot, & Poroli, 2014; Khazami & Lakner, 2021c).

Specifically focusing on how these characteristics impact women's enterprises may yield insights that might help us better understand not only women's entrepreneurship but entrepreneurship in general (De Bruin, Brush, & Welter, 2007). Institutional level factors describe the institutional environment for entrepreneurship, such as educational capital and regulatory protection (H. P. Bowen & De Clercq, 2008). There are several pathways that women may follow to become company entrepreneurs. Women who establish, inherit, or purchase a business, women who start enterprises with husbands or business partners and work

in the front or back office, women who develop fast-growing corporations as well as those whose businesses are part-time or slow-growing are all examples of women business owners (Starr & Yudkin, 1996). Individual level elements, such as work status and fear of failure, define individual qualities associated to entrepreneurial activity (Ardagna & Lusardi, 2008). Different researches had been conducted to study how institutional and individual level factors impact nascent entrepreneurship, and some studies even use the terms nascent entrepreneurship and entrepreneurial intention interchangeably (E. R. Thompson, 2009). Often, being an entrepreneur is the outcome of a personal decision-making process that includes assessments of possibilities and their costs (being employed, jobless, or self-employed), risk-reward connections (what is at stake), and others. This choice is influenced by values, attitudes, and behaviours that are entrenched in the culture of a country and a location. Many factors and conditions contribute to entrepreneurial success, but having the proper skills and competencies to discover and realize opportunities, recognize obstacles in time, and respond to setbacks is critical (Khazami & Lakner, 2021b). Although there are certain identified factors that can influence entrepreneurship in general, narrowing down the research strategy to specific location can help understand better the role of these factors.

In this study, Tunisian entrepreneurship is discussed with different dimensions. Tunisia, formally the Republic of Tunisia, is Africa's northernmost country. It is located in North Africa's Maghreb area, surrounded by Algeria to the west and southwest, Libya to the southeast, and the Mediterranean Sea to the north and east. It became an independent state on 30th march, 1956. According to World Bank (2022), GDP of Tunisia climbed by an estimated 2.9 percent in 2021, due to the effective containment of the COVID-19 pandemic, which began in the second semester, and greater vaccination, which allowed for the relaxation of mobility restrictions throughout the country. Given the MENA region's worst GDP drop of 9.2 percent in 2020, the economic comeback was quite moderate. Further, the labour market's outcomes have remained constrained. With a modest decrease in labour force participation, the already high unemployment rate reached 18.4 percent by the third quarter of 2021. The unemployment rate is especially high among young people, women, and in the country's west (World Bank, 2022).

This data makes it clear that women are one of the most suffered due to unemployment however they are one of the most valuable assets of promoting the country’s economy through entrepreneurship. By 2005, Tunisia had about 5000 female entrepreneurs, which had more than quadrupled to 10,000 by 2008. The situation of Tunisian women in rural regions remains

exceedingly precarious: 40% of rural women are illiterate, and many rural women experience various health issues owing to a lack of access to free healthcare (Elrahi, 2015). Furthermore, these women are underrepresented in the economic and political spheres. Despite the legal extension of women's rights in Tunisia, deference to conventional gender norms continues to prevent women from pursuing entrepreneurial roles in society. According to Drine and Grach (2012), this might be explained by a "inadequate support structure" for Tunisian women who want to pursue professions in business (Drine & Grach, 2012). In 2021, 40% of the firm owners were found to be female in a survey conducted on 615 firms in Tunisia (Statistica, 2022). This shows that the drive for entrepreneurship exists among the Tunisian women which can also be explained by the high ratio of unemployment.

The level of entrepreneurship differs for the rural and urban women based on the opportunities and necessities for entrepreneurship. Input into productive decisions, asset ownership, and credit access and decisions contribute more to empowerment in rural regions of Tunisia than in urban ones, while the opposite was true for control over the use of money, group membership, public speaking, and leisure. Agriculture is significantly more prevalent in rural regions than in urban areas and the elements that contribute to rural empowerment are precisely those linked with agricultural output, such as input in productive choices, asset ownership, and access to financing. In contrast, metropolitan locations of Tunisia may offer more facilities for group membership in sports, cultural activities, or civil society, as well as a more diversified population living in non-traditional (single) households (ILO, 2018). By attempting to better knowledge of the underlying assumptions behind intents, research on entrepreneurial intention made considerable progress (Hayton, 2012). Examining the function and significance of mental prototypes, cognitive scripts, mental schemas, and maps gave insight on the creation of entrepreneurial intents and the process that leads from intention to conduct (Shinar, 2018). These ideas helped us understand that how human decision-making works through automated processing. Different factors of empowerment lead to different conditions for the development of intentions towards entrepreneurship. For this reason, entrepreneurial intentions (EI) are driven by various factors which contribute to the motivation or demotivation of entrepreneurial activities around Tunisia.

Entrepreneurship has long been presented as a masculine job connected with stereotypically male attributes such as aggression, competition, and risk taking in socially conditioned attitudes (Ahl, 2006; Byrne & Fayolle, 2010). Individuals' possibilities and motivations to pursue specific careers might therefore be shaped by widely held attitudes about gender roles. The

gendered nature of an entrepreneurial job can also impact the connection between female entrepreneurs and other service providers such as lenders, limiting women's capacity to acquire the required finances or family support to thrive as entrepreneurs (Powell & Eddleston, 2013). Furthermore, women may experience greater business–family conflict and, as a result, regard the environment as difficult and inappropriate for entrepreneurial activity (Zhao, Seibert, & Hills, 2005), with insurmountable impediments. Indeed, "women tend to regard themselves and their company environment in a less favourable light than males," and "perceive the entrepreneurial position as less adequate for them (Langowitz & Minniti, 2007; Santos, Roomi, & Liñán, 2016). As a result, it is not unexpected that several studies have shown disparities in EI between the sexes (Baughn, Cao, Le, Lim, & Neupert, 2006; Gupta, Turban, Wasti, & Sikdar, 2009; Maes, Leroy, & Sels, 2014; Shinnar, Hsu, & Powell, 2014).

Over the last two decades, cognitive research on entrepreneurial intentions and their antecedents has advanced. Scholars have found and utilized a variety of psychological models to identify elements influencing people' establishment of EI. Various results concerning the importance of psychological factors on EI (Altinay, Madanoglu, Daniele, & Lashley, 2012; Engle et al., 2010; Volery, Müller, Oser, Naepflin, & Rey, 2013). Previous meta-analyses in social psychology based on data from correlational and experimental research revealed that intentions had high to moderate relationships with actual behaviour (Webb & Sheeran, 2006). Scholars in the entrepreneurial area have confirmed a favorable association between entrepreneurial ambitions and real entrepreneurial participation (Guzmán-Alfonso & Guzmán-Cuevas, 2012; Kautonen, Van Gelderen, & Tornikoski, 2013; Lanero, Vázquez, Gutiérrez, & García, 2011).

This study focuses on how various institutional and individual level variables influence entrepreneurial intentions. Further, we also seek to add to the body of knowledge on women's entrepreneurship through the emphasis on the main socio-cultural elements that either boost or discourage women's entrepreneurial goals. Furthermore, the research investigates if these characteristics are consistent across Tunisia (In urban and rural Tunisia), that is, whether these factors effect women differently depending on the area's level of economic development.

1.1 Objectives

This study was conducted (1) to evaluate the role of identified factors on the EI of Tunisian population, (2) to assess the effects based on the gender of the respondents, (3) to assess the

effects based on the residence of the respondents and (4) to compare the effects of all variable between the rural and urban Tunisian women

1.2 Hypothesis

Entrepreneurship is an important phenomenon in the world and it got stronger roots after the industrial revolution. It provided the countries to control world politics and economies based on the products they produce and the markets they capture. It decided the fate of many great nations such as China and America. For a developing country like Tunisia, its important is even greater as the economy of the country needs stronger backing by the entrepreneurs to sustain livelihood and to evolve into a great nation. This reason makes it more important to focus on the participation of the women who are more than capable of becoming successful entrepreneurs. However, the participation of women in entrepreneurship is faced by some unique challenges driven by a variety of factors, which define the entrepreneurial intent of women. This study will focus on studying the entrepreneurial intentions among Tunisians (especially women) and will examine the factors responsible for the development of positive or negative entrepreneurial intentions through the following hypotheses.

H1 = Positive entrepreneurial attitudes will affect positively the entrepreneurial intentions of respondents

Considering the importance of attitude in the development of EI, this study will investigate the role of attitude in the development of EI among tunisian men and women keeping in view the underlying cultural, economic, and societal challenges (Movahedi & Yaghoubi-Farani, 2012).

H2 = Family Support of the respondents will have a positive effect on subjective norms

A family is reflected through an individual which is why the importance of subjective norms developed by an individual are subjected to familial support (Moussa & Kerkeni, 2021). To assess the dependency of young Tunisian population on their family and the effect of familial norms on individual thinking, this research will look into the effects of family support on subjective norms development among individuals .

H3 = Government Effectiveness will affect positively the entrepreneurial intention of the respondents

Government policies and interventions has a direct effect on domestic and international businesses, which in turns effects the development of EI among individuals (Van Horne,

Huang, & Al Awad, 2011). This is why, this study assessed the role of government effectiveness on the development of EI among Tunisian population.

H4 = Perceived Behavioral Control of the respondents, will affect positively their entrepreneurial intention

Perceived behavioural control was found to be among the contributing variables having a substantial impact on the establishment of new businesses in the country (Ali & Jabeen, 2022) which is why, PBC was considered for its possible effects on EI.

H5 = Risk-taking way of behaving of respondents, will affect positively their entrepreneurial intention

The way of risk taking improve performance in business and the setup of new enterprises (Belanes & Hachana, 2009). However, limited opportunities hinder the process of risk taking making it a valuable factor in consideration for present research.

H6 = Positive subjective norms of the respondents, will have a positive impact on their entrepreneurial intention

The established of subjective norms towards entrepreneurhip can have a vital effect on deciding the fate of an enterpreneur especially in case of women (Eddleston & Powell, 2012). Identifying the effect of this important variable is another one of the characteristic features of our research.

Each of the constructed hypothesis was not only tested for the general overall model but also in the subsections of data to provide an in-depth understanding of the research questions. The subsection assessments included rural-urban model, men-women model and rural women-urban women model.

2. LITERATURE REVIEW

Entrepreneurship is today considered to be a relevant vehicle for economic development and women contribute to it significantly worldwide: indeed, in 2010, 187 million women were involved in creating and operating enterprises, meaning that almost 42% of entrepreneurs in the world were women (Kelley, 2013). True entrepreneurs are resourceful, highly motivated, and driven to succeed and improve their entrepreneurial skills. An entrepreneur is a person who operates a new venture and also inherits some risks and is able to look at the environment. The great ones are ready to be laughed at and criticized in the beginning because they can see their path ahead and are too busy working towards their dream. Originating in the U.S. and the U.K., women's entrepreneurship research is now conducted by scholars around the globe. Women may play a key part in the broader entrepreneurial phenomena and economic development, according to new research (Sarfaraz, Faghih, & Majd, 2014).

2.1 Background of women entrepreneurship

For many decades, societal conventions determined women's positions in business. Women's rightful place was at home, according to the "cult of domesticity" that influenced American culture in the early nineteenth century. "In 1972, women controlled 4% of all companies in the United States; by 1991, that number had risen to 38%. This is no small feat; these women-owned businesses generated $4 trillion in sales and employed 27 million people" (Linard, 2002). The mid-nineteenth century boom in the textile industry and rising industrialization; the creation of the national railroad system and the telegraph from 1880-1920; and the more recent information revolution all correspond to eras of peak industrial or economic upheavals (Linard, 2002).

"Women-owned enterprises were largely taverns and alehouses, millinery and retail stores, hotels and brothels up until the nineteenth century, and were typically managed as a method to generate an income for women who found themselves without a breadwinning male." Women have also been known to inherit companies from their dads or spouses and find themselves forced into typically male-dominated industries (Brand, 1991; Kirkby, 1997). Despite popular belief that the unpleasant world of business was unsuited for women's gentle and fragile natures, these ladies established enterprises. Business was a method for a woman in potentially severe circumstances to provide for herself rather than become a societal burden in these earlier periods. In any event, many women succeeded, like Rebecca Lukens, who, starting in 1825,

transformed her family's failing ironworks into a successful steel firm that lasted until the twenty-first century (Scheffler, 1999).

Many women entered the workforce during World War I, filling positions so that males could go out to fight." Many women were encouraged to explore beginning their own companies by the same patriotic enthusiasm (Grayzel, 2013). By the early 1960s, the shifting social and cultural landscape had offered fresh incentives for aspiring female entrepreneurs." During the 1960s, divorce rates rose, and single women looking for a way to combine childrearing and their new duties as providers viewed business as a viable answer. Ruth Fertel took out a mortgage on her house in 1961 to purchase Ruth's Chris Steak House. Others, such as beauty guru Mary Kay Ash and advertising executive Mary Wells, launched their own businesses as a method to express their independence in the male-dominated corporate sector (Bloor & Barrows, 2009).

2.2 The Start of Publications on Women Entrepreneurship

In recent years, there has been a tremendous increase in scholarly interest and engagement in the subject of women's entrepreneurship, which has helped to address the historical undervaluation of female entrepreneurs and their efforts. However, as the discipline develops and matures, there are more and more requests for academics to branch out and do new things with their study. In 1930s, a body of literature on mainstream entrepreneurship arose, concentrating mainly on the male entrepreneur. In the late 1970s, a distinct sub-domain of women's entrepreneurship emerged (Jennings & Brush, 2013). Schwartz (1976) published the first academic paper on female entrepreneurship in the Journal of Contemporary Business while the first policy report on the subject titled as “The bottom line: Unequal enterprise in America” was released in 1979 in Washington DC (The-Bottom-Line, 1979). At the Babson College Conference on Entrepreneurship, R. D. Hisrich and Brush (1983) gave the first academic conference presentation on women entrepreneurs. Goffee and Scase (1985) released the first scholarly book on female entrepreneurs. Initial entrepreneurship study thought that male and female entrepreneurs were essentially the same and that there was no need for a separate inquiry (Bruni, Gherardi, & Poggio, 2004). As a result, women's entrepreneurship did not emerge as a substantial sub-domain until the late 1990s to early 2000s (Jennings & Brush, 2013).

1980’s to 2000 reviews

D. D. Bowen and Hisrich (1986) published the first review paper on women entrepreneurs in 1986. They find only piecemeal studies on male and female entrepreneurs till the 1980s. They reviewed previously available literature and concluded that those studies did not looked at the elements that could influence a person's decision to pursue an entrepreneurial career. Furthermore, they claimed that little is known about female entrepreneurs compared to male entrepreneurs. They presented a career model that included factors of women's entrepreneurial activity, using the lens of career theory. The goal of this initial study review was to get insight into this topic and inspire women to start businesses in non-traditional areas.

Briely (1989) conducted a study to see if female entrepreneurs differed from male. Strategies used for market entrance is the main distinction found among female and male entrepreneurs. Almost all of the studied researches were descriptions of fundamental backgrounds and traits. It was necessary to investigate minor elements such as cultural conditioning and experiences. The author suggested that the disparities between men and women entrepreneurs should be examined in the context of their position and culture. Women's roles in most Western economies were viewed as those of a wife and mother until the 1980s. Women relied primarily on their homes for inspiration and lacked access to fundamental commercial networks. As a result, women's market entry preferences differed. According to the review report, the emergence of women-owned companies was a sign of a changing society. Women entrepreneurs' profiles were expected to change in the future to reflect changing circumstances and become more similar to male entrepreneurs' profiles (Briely, 1989).

According to Brush (1992), not only had the number of women company owners increased significantly over the last decade, but also the quantity of research papers on women business owners. Brush (1992) had a claim that, research had revealed certain similarities and differences between male and female company entrepreneurs during the last decade. Demographic characteristics, psychological qualities, and business skill sets were all been found to be similar. Educational backgrounds, occupations, desire to initiate a business plan and approaches to business development and growth were the ones that differed. She further concluded that the differences in the literature haven't been completely explored. Women, according to the integrated perspective, see their business as a cooperative network of ties that includes family, society, and personal relationships. Accordingly, this approach differs from the economic understanding of business formation and is most likely to explain disparities between entrepreneurs of different genders (Brush, 1992).

Fischer, Reuber, and Dyke (1993) proposed that women entrepreneurship requires theoretical foundations for sufficient actions to be taken for the promotion of a business women. Despite the fact that study on female entrepreneurs has grown significantly, they discovered a lot of supposition about the differences between male and female entrepreneurs that was primarily theoretical. They examined past studies in the field from the liberal and social feminist viewpoints. In addition to the review, they also included results from a poll of 136 manufacturing business owners (11 women), 156 retail firm owners (29 women), and 216 service firm owners (including 20 women). From a policy standpoint, the study of Fischer et al. (1993) showed that providing women entrepreneurs with access to industry apprenticeships can be helpful since it is the greatest method to prepare for starting a firm in a certain sector. Moreover, female entrepreneurs being exposed to new businesses was also believed to be beneficial in this regard. They suggested that using liberal and social feminist principles was a better method to understand defining male and female socialisation differences, which might explain why men and women manage their enterprises differently yet equally successfully (Fischer et al., 1993).

Mirchandani (1999) examined the literature on female entrepreneurship through the perspective of feminist theory on gendered work. The purpose of this research was to uncover and explain the similarities and distinctions amongst female and male businesspersons. It argued that discussions on two issues can help develop the subject of women's entrepreneurship. First, academics must examine the creation of female entrepreneur category itself, which lists gender above other forms of stratification. Second, the relationships between gender, occupation, and organisational structure must be explored, as well as their impact upon female vs male entrepreneurs (Mirchandani, 1999).

2000 to current reviews

Brush, De Bruin, and Welter (2009) examined the academic literature on women entrepreneurship using an organisational framework. They proposed a gender-sensitive framework for a deep understanding of female empowerment. They establish a framework around 3Ms (markets, money, and management) while adding two more constructs (motherhood and macro environment) which yielded in a 5M framework. According to them, the variable Motherhood is a metaphor for female entrepreneurs' home and familial settings. In the case of female entrepreneurs, this may have a far higher impact than in the case of male entrepreneurs. The meso/macro environment aimed to include sociological, cultural (macro),

intermediate structures, and institutional factors (meso) in addition to market effects (Brush et al., 2009).

Ahl and Nelson (2010) examined previous research on gender and entrepreneurship and offered suggestions for further study. They argued that empirical studies should be compared which analyzed gender based entrepreneurship as binary variables. They advised they need for more research into the differences in behaviour between male and female entrepreneurs in the context of societal influences that affect them. They believed that by framing gender as a socially created entity, a better discourse may be achieved. In other words, researchers should concentrate on figuring out how to discern between "what women do" and "what males do" when it comes to "doing entrepreneurship" (Ahl & Nelson, 2010).

In a later study, Ahl and Marlow (2012) re-shared their thoughts and argued the existence of an unspoken gender bias in the entrepreneurial discourse. This was in contrast to neoliberal perspectives on entrepreneurship, which emphasize personal work as the sole determinant of reward and prestige. They contended that gendered preconceptions restrict the epistemological scope of study in this field, portraying business oriented women as either unsuccessful or unwilling participants. The development of a reflexive critical viewpoint was considered necessary, which was believed to aid in analyzing existing theoretical approaches to women's entrepreneurship (Ahl & Marlow, 2012).

Women's entrepreneurship research, according to K. D. Hughes, Jennings, Brush, Carter, and Welter (2012), was on the verge of adolescence. This perspective was based on observable growth signs in the field, such as an increase in the number of conferences, journal special issue-call for papers, and specialized journals that had begun to publish in this area. There were other instances of other publications in the field of women's entrepreneurship, such as GEM reports, chapters, and books. K. D. Hughes et al. (2012) believed that there had been progress in the kind of questions asked and the explanations provided. They argued that in order to answer conventional and non-traditional issues, the necessity of being inclusive of various perspectives and the use of a constructionist approach is important. They also showed that most research collaborations in the field of entrepreneurship related to women’s business were still limited to national borders. This generated the requirement of future studies for creation of transnational networks (K. D. Hughes et al., 2012).

The next study by Goyal and Yadav (2014) examined the obstacles that women entrepreneurs confront in underdeveloped nations such as India. Female entrepreneurs faced greater hurdles

than their male colleagues, according to the study. Women in underdeveloped nations had these problems as more distinct and more complicated. These women in poor nations struggled to access money, face socio-cultural prejudices, and were reported to have low self-esteem, according to the researchers. They claimed that developing countries suffer from institutional gaps and a lack of entrepreneurship education. In a conclusion, the authors believed that these complex problems required to be addressed holistically in order to aid research and policy work on women entrepreneurs in developing nations (Goyal & Yadav, 2014).

Agarwal and Lenka (2015) examined secondary data with the purpose to investigate and conceptualize women entrepreneurs' work-life balance. Role conflict arousal as a result of the development of family duties and prospective roles was found to be common among most of the women in reviewed studies. To minimise role conflict, the authors advised that women create a balance between work and personal life. Finally, women started their own firms to get more flexibility and control over their job and personal obligations. They contribute to the nation's job creation, innovation, and economic growth through their entrepreneurial activities (Agarwal & Lenka, 2015).

Idris and Tan (2017) reviewed previously available literature on the subject on women entrepreneurship. The authors believed in the participation of women entrepreneurs and its importance in the transformation of social interactions along the gender lines. Various reasons were described to be important for a woman to become an entrepreneur. Among these, the desire for more free life, self-satisfaction, earning money, family support and greater self-respect. On discussing the work-life balance, according to Idris and Tan (2017), owning their own business allows them to regulate the amount of time spent working as well as time spent with family at home. This implies that they improve their standard of living without abandoning their family. Women entrepreneurs have their own ideas or opinions, thus they are prepared to take chances in their business. In concluding remarks, it was interpreted that most of the studies in previous years had focused on the encouragement of men entrepreneurs to start their own businesses while very few researchers discussed the hurdles a woman has to face in daily livings for the sake of developing a successful business. Further research on the subject was suggested for better directions to promote entrepreneurship among women (Idris & Tan, 2017).

Another study conducted by Panda (2018) examined and rated the restrictions experienced by female entrepreneurs in 35 studies conducted in 90 developing countries. The study concluded that in the future, experts should investigate successful women entrepreneurship initiatives

from other nations to better understand the reasons for their success. This was deemed significant due to the current perspective and constraints faced by women entrepreneurs, but availability of limited literature made it primary to look for more evidence about the factors which are deemed essential for the future success of women-based businesses and industries. According to the report, in addition to budgetary restrictions, unstable BEP settings should be addressed as high concerns (Panda, 2018).

Cho, Li, and Chaudhuri (2020) found three major constraints as a hurdle to women entrepreneurship in 8 Asian countries. These included traditional culture and religious beliefs; lower probability of appointing women to higher roles/leadership roles in Asia; many organizations in Asia remained as gendered workplaces where the existence of certain constraints was found which were mitigated by culture, religion and organizational values. Cho et al. (2020) gave insights on enhancing the potential of aspiring female entrepreneurs in quickly emerging Asian nations where a mix of expectations between traditional approaches and modernized ideals are found. It was anticipated that, despite the obstacles and difficulties that female entrepreneurs faced, the opportunities for business development that they established may serve as a model for aspiring female entrepreneurs in Asia and other countries (Cho et al., 2020).

2.3 Current State of Women Entrepreneurs in Developed Economies

Though, women entrepreneurs are key role players in boosting the economies of developed nations, still, there are some restraints which are unique to the society they live in. Devine, Molina Sieiro, Michael Holmes, and Galdino (2020) discussed studied the work-life balance of informal female entrepreneurs in Latin-America. Women entrepreneurs make up a disproportionately large part of the informal sector. Therefore, using role congruity theory, the study hypothesized that women were disproportionately influenced to formalise when work-life balance concerns are present. Using a sample of 810 informal entrepreneurs from Argentina, Guatemala, and Peru, the study discovered that women entrepreneurs were less likely than males to plan to formalise, and that work-life balance concerns impact women entrepreneurs differently than men in terms of formalization intentions (Devine et al., 2020).

Wang (2019) looked at how gender interacts with race and ethnicity in the female entrepreneurship process, as well as how women entrepreneurs' experiences influence and were shaped by their communities. Data from the American Community Survey from 2010 to 2014 was examined. The data was then evaluated after an in-depth interview and focus group

discussions with 40 female company owners. Women entrepreneurs had reported to confront the obstacles and difficulties of balancing family and career responsibilities. However, they showed great resilience and deliberately thrived to attain a social status, freedom and a purpose of life in a society, majority of which is based on masculanity. Their embeddedness within local communities, gives purpose, possibilities, and functional methods for their entrepreneurial activity (Wang, 2019).

Vershinina, Rodgers, Tarba, Khan, and Stokes (2020) provided insights into the essential role played by stakeholder connections in female-owned high-technology enterprises in Russia, in pursuit of the legitimacy required to obtain the resources that would contribute to long-term innovation and company growth. By summarizing the findings of interviews with Russian female company owners, it was found that, when faced with the liabilities of smallness and newness, which are compounded by gender-related liabilities, these entrepreneurs created ways to help their entrepreneurial enterprises. Within the fledgling global high-technology realm, these female entrepreneurs gained credibility for their worldwide operations by gaining access to external international players, which led to the acquisition of much-needed financial and expertise resources. Furthermore, their connections with foreign stakeholders allowed them to obtain credibility among internal Russian stakeholders, improving the creativity and performance of their operations (Vershinina et al., 2020).

Further, M. Solesvik, Iakovleva, and Trifilova (2019) examined the motivations of female entrepreneurs in Norway, Russia and Ukraine. A qualitative research method was used to investigate the social and profit-driven motivations of female entrepreneurs. A total of 45 female entrepreneurs from the areas of consideration were analyzed for their motives. Additionally, the data gathered from interviews was triangulated with information gleaned from the internet, corporate reports, and media publications. The findings revealed that in the study area, women frequently pursue business opportunities to meet social needs rather than focusing on traditional business goals such as growth or profit. However, contrasting circumstances — the difference in the environment of the three countries – appeared to impact desire to launch new companies differently. According to the study, female founders in Norway had a higher motivation to contribute to the needs of society than their counterparts in Russia and Ukraine. On these bases the study suggested that, in comparison to Russia and Ukraine, the cultural and social environment of a mature nations, such as Norway, likely affords more opportunities for female entrepreneurs which provides them with the drive to face and overcome challenges posed by the society (M. Solesvik et al., 2019).

Another study looked at the fashion designers' entrepreneurial careers in Russia. Based on in depth interviews, Gurova and Morozova (2018) explored fashion designers' entrepreneurial experiences and labour practices in the context of precarity: that is, structural conditions defined by a lack of social, economic, and emotional stability induced by a transfer in labour market obligations from the state to people. The study addressed the subject of how young entrepreneurs belonging to the field of fashion designing deals with such structural challenges through state assistance, support from the community, organisational practices and managing emotions from the standpoint of designers' agency. The study also considers creative labour in the perspective of the conditions of a creative class under an authoritarian regime. According to the findings, fashion designers desired to keep independence from the state and adapt their lifestyles to the utilization of community, organisational, and individual resources (Gurova & Morozova, 2018).

Kovaleva, Hyrynsalmi, Saltan, Happonen, and Kasurinen (2023) studied gender disparity in technology, science, and engineering and considered it a global issue. The authors found a shortage of women in digital entrepreneurship where, most success stories included male entrepreneurs. Different elements that influenced women's decisions to pursue a career in technology and become entrepreneurs in the field were studied. Certain hazards and challenges that may had an impact on the appeal of the tech industry and particularly technology entrepreneurship were also studied. The researchers performed a series of surveys and interviews to better understand the variables influencing women's interest in entrepreneurship in the technology industry. Overall, ten female company founders were interviewed, and two surveys were conducted with women working, interested in, or studying in the tech sector. The study reported that the most common factors limiting individuals' interest in entrepreneurship, such as financial risks or high responsibilities, might not be gender-related, but there were also aspects such as social acceptance, discrimination, and a lack of role models that affected particularly women interested in the possibilities of becoming a tech entrepreneur.

Using a mixed model of study, Kalu and Okafor (2021) analyzed the mechanism and conditions related to demand and supply of the migrant women in Canada to ensure the greater precision and applicability of the study. Empirical research from the study demonstrated huge unmet requirements for entrepreneurial support programmes. The failure of settlement agencies to address the entrepreneurial demands of new immigrants was mostly due to the prioritizing of other support services and a lack of resources. The study identified prejudice, difficult-to-satisfy business rules, and unusual inclinations of immigrants to seek assistance as some of the

significant hurdles to immigrant women in Canada in addition to an unfamiliar Canadian environment. The authors believed that these problems, may be mitigated through improved entrepreneurial trainings, awareness campaigns regarding business information, and more financing, among other things (Kalu & Okafor, 2021).

Coleman, Henry, Orser, Foss, and Welter (2019) conducted cross-country research, aimed at increasing women entrepreneurs' access to financial resources. An analysis of laws/policies and practices/implementation in countries across Europe and the United States using feminist theory was made. Further, the investigation of policy assumptions as well as eligibility requirements, norms, and regulations for practices was also made. Findings of this research showed that four of the five studied countries had policies that are based on a neoliberal paradigm that views women entrepreneurs as economic assets. The findings also indicated that existing initiatives aimed at expanding women entrepreneurs' access to financial capital were dominated by neoliberal feminist ideas. The authors provided insights on potential for updating rules and practices in ways that would strengthen the legitimacy and access to financial resources of a more diversified range of women entrepreneurs (Coleman et al., 2019).

Anggadwita and Indarti (2023) reviewed previous literature on women's entrepreneurship in the internationalisation SMEs by examining the research profile, internationalisation entry modes and the theories underpinning them, key variables using the AMO framework and suggestions for potential potentiators. This study employed bibliometric analysis to pick 62 relevant publications from authentic sources while using a content analysis to identify the possible gaps. During the period 1994-September 2022, the number of papers published varied, demonstrating a rising trend of women's entrepreneurship research in the internationalisation of SMEs being published in several respected journals by well-known publishers. This investigation also discovered various additional internationalisation entry options, while export remains the most commonly utilised.

Römer-Paakkanen and Takanen-Körperich (2022) analyzed how the careers of older women linguists grew and led to self-employment, not necessarily in a chronological career stage pattern among Canadian women. Beyond economic concerns, the emphasis was on understanding the variables that motivate older women to begin or stay in an entrepreneurial lifestyle. This study was based on semi-structured interviews with 10 informants and brief narratives on their late-career motives and decisions. The findings of the authors indicated that the careers of these self-employed older women evolved in parallel, exploratory, or expertise

routes. Clearly, economic considerations (having) appeared to affect these women's decision to continue their jobs as entrepreneurs. They also made a significant point about other aspects of happiness, such as relationships (loving), self-realization learning (being), entrepreneurship as a lifestyle (acting), and meaningful extension of one's profession (belonging).

Cannon and Kurowska (2013) attempted to investigate the gap in the entrepreneurial researches in the North of England while responding to population change. A variety of research methodologies were used to explore the influence of these demographic shifts on new company formation rates and business stock. The study discovered an increasing interest in self-employment the elderly (50 and above). Men, on the other hand, were more inclined to want ongoing work, whilst women were more interested in self-employment and business formation. There were also distinctions between the sexes in terms of their business goals and the sorts of ventures they intended to start. The study focused on the prospects for entrepreneurial policy interventions that may come from the reorganization of the public sector at the local, regional, and sectoral levels. However, there were impediments to capitalizing on these possibilities, particularly evidence of high levels of risk aversion among public sector employees (Cannon & Kurowska, 2013).

Wynarczyk and Graham (2013) analyzed the extent of the influence of technology on women's home-based business operations in the England. The study discovered that technology has reframed the notion of 'home economics,' creating an effective route for engaging women in the labour market, based on an empirical review of 98 women-owned home-based firms. The authors emphasized that Home-based business ventures should be promoted further through appropriate government with the help of proper policy channels and entrepreneurial support networks that can serve as a viable employment opportunity, as well as a solution to the dual-role conflict that some women face, which may deter them from taking active roles in local and regional economic development (Wynarczyk & Graham, 2013).

Robb and Watson (2010) analyzed the disappearance of performance difference among the male and female business setups (SME's). The study was performed using two large longitudinal (four-year) databases from Australia and US. Most of the women-controlled SMEs in both of the analyzed countries were found to be more prone to closure as compared to male controlled SME's. This difference remained significant from startup to 3 years of business yet at 4th year, the change in closure rates men or women-controlled SMEs was non-significant especially in USA. Men controlled SME's had better business life as compared to women

SME’s while the number of employees were less in Women SME’s as compared to male SME’s. After correcting for key demographic variations, the findings of study indicated that SME’s of female business owners do not fall behind male-controlled SMEs in terms of rates of survival, return on assets (ROA), and risk-adjusted terms (Sharpe ratio). These findings, according to the authors, demonstrated conclusively that SME’s of female owners do not differ from male-controlled SMEs in terms of performance both at early-stage as well as in well-established business setups when alternative size measures (such as sales, employment, and assets) are used instead of the traditional size measures used in previous research studies (Robb & Watson, 2010).

Akehurst, Simarro, and Mas-Tur (2012) investigated the features of female entrepreneurs and the businesses they run in Spain, in order to contribute to a better understanding of female business creation, as well as the elements that influence the activities of female entrepreneurs. The findings of this research revealed that several internal and external factors influence the motivation, barriers to success, and performance of female-founded businesses. The external variables examined in the study effected the motivation among entrepreneurs of female gender and the challenges they must overcome in various ways. For starters, short term expansion had an impact on work unhappiness among female entrepreneurs. Second, family loans supported women entrepreneurs' objectives and lessen conciliation issues, whereas subsidies assist women who were dissatisfied with their current employment position in starting their own firms. Furthermore, bank funding alleviated competition and customer management issues. Among internal variables, women who started a firm at a younger age had more difficulty managing employees but less difficulty training and locating infrastructure. Younger female entrepreneurs also shared family obligations with their spouses to a lesser level. The lack of a partner at the time of forming the firm appeared to have a beneficial impact on the desire to establish a business. Conciliating family (as one might expect) becomes more difficult as the number of children increases. Larger organisations and those that have previously grown were more likely to extend their activities in the near future in terms of external variables such as expansion and finance. Profits were shown to be greater for enterprises created with family members' funding. Internal female variables such as age, marital status, family, and so on had little influence on eventual firm performance. The type of financial backing, demographic features, the age of the new firm venture, the use of family loans, and the original size of the operation all had a part in future business success (Akehurst et al., 2012).

van Hulten (2012) studied Australian female and male entrepreneurs to evaluate the difference in their growth and desire for funding, as well as their rates of denial, discouragement, and financial limitation, and their sources of finance. Data derived from a thorough survey of Australian SME's performed in 2010 was used for the study. Female entrepreneurs had lower growth ambitions than men after controlling for a number of firm, owner, and risk characteristics, but there was no difference in desire for business finance. Enterprises owned by women were smaller and younger than firms controlled by males. They were also more likely to work from home and in the service industry. Female owned business were less likely than male owners to make money from foreign or interstate sales, implying geographically limited markets. Gender had no influence on the likelihood of rejection, discouragement, or financial constraint when reporting. Gender had no influence on the likelihood that a corporation had previously obtained a loan from a Bank, collected money from informal sources like relatives and friends, or sourced equity investments from current owners (OWNERS). In terms of financial sources, female migrants were no different from other categories. This indicated that the sorts of financing used by men and women were not considerably different (van Hulten, 2012).

Azmat and Fujimoto (2016) used qualitative methodologies to investigate the opinions of women migrants (Migrant women entrepreneurs [MWE]) in Australia, concerning their entrepreneurial experiences from the standpoint of family embeddedness. More precisely, the investigated how various characteristics impact the familial embeddedness of Indian MWEs, which in turn influences their entrepreneurial experience. Data from the study implied that entrepreneurship among the migrants of indian origin was a complex phenomenon impacted by their nationality, gender and identities of the country they currently resided in. Results indicated that MWEs and their partners' strong family orientation was influenced by Indian cultural norms. MWEs saw both good and bad effects from living in joint households which was practiced by more than half of the study respondents. It was also discovered that, in addition to the assumption that women take on family obligations, the joint family setting might create new situations for MWEs, forcing them to combine work and family domains. However, an interesting dynamic that emerged from the research was the gradually shifting perspectives of men and women, particularly in respect to sharing domestic activities that were traditionally seen as primarily the responsibility of women. This shift in conceptions of women's duties was believed to be the consequence of both MWEs and their spouses' absorption and embedding into the host country's society as Australians (Azmat & Fujimoto, 2016).

Collins, Morrison, Basu, and Krivokapic-Skoko (2017) studied the influence of Indigenous culture on entrepreneurs in Australian SME's. 38 Indigenous entrepreneurs including from different regions of Australia were a part of this study. The link between Indigenous culture and Indigenous entrepreneurship was considered to be complicated and occasionally conflicting. A number of factors were believed to be the cause of this complexity. These factors included diversity among Australian Indigenous community; presence of non-indigenous partners; and the impact of racism on the communities and culture of Indigenous people in the parent country. The impact of culture was prominent in the identities and practices of various entrepreneurs, as well as the narratives of the things they created and marketed. While it appeared that the most significant effect of Indigenous culture on firms was how family was treated and kin relationships were preserved. Several entrepreneurs in our research had a legal business partnership with their spouse, and many of these partners were also key actors in the Indigenous sector. This research clearly shows that Indigenous entrepreneurship in small businesses has a huge potential to grow even quicker in the next decades (Collins et al., 2017).

2.4 The Concept of Entrepreneurship in Developing Countries

One of the fundamental flaws in the existing entrepreneurship literature is that it almost entirely focuses on the United States, Canada, and the OECD nations, i.e., the Northwest or mature capitalist market democracies. "Entrepreneurship in underdeveloped nations is the most understudied significant global economic phenomena today," (Lingelbach, De La Viña, & Asel, 2005). The definitions and methodologies created by various Western thoughts, ideologies and scholarly traditions do not represent all of the dimensions and consequences of entrepreneurial trends and activities in the developing world, and this is no exception in the Middle East and North Africa (MENA).

The numerous definitions of entrepreneurship and the various techniques used to research the phenomena are discussed in this debate. The discussion's goal is neither scholarly nor theoretical. Rather, it attempts to establish an operational definition of entrepreneurship that is best suited to Tunisia's socioeconomic and political difficulties, as well as those of the MENA region. The major components of entrepreneurship will be highlighted throughout this process, and the perspective from which the phenomena will be approached will be formed in dialogue with the literature.

Global Entrepreneurship Monitor (GEM) is a determined effort to research entrepreneurship in a wide range of countries, which includes the countries falling outside the boundaries of the

west and the most focused among those are the emerging nations. GEM defines entrepreneurs as "active adults in the process of starting a business," which is a very practical and fundamental description. Such individuals might (partially) own a company or might perform the duties of managing an active company. This definition is comparable to those who argue that venture development is the most appropriate topic of entrepreneurial studies (Reynolds et al., 2005). Total Early-stage Entrepreneurial Activity is GEM's primary instrument for cross-country comparison (TEA) (Peris-Ortiz, Ferreira, & Fernandes, 2018). TEA shows the percentage of individuals in each economy who are active in business start-up - emerging activity - or who have been operating new businesses for less than 3.5 years.

Surprisingly, greater TEA rates are negatively connected to income, according to GEM, nations with lower income had shown to have higher TEA rates in comparison with the industrialized countries (Lecuna, 2014). This result runs counter to the widely held belief that increased entrepreneurial activity is connected with increased growth and employment creation. Conversely, poorer nations who possess little growth rates in addition to lower productivity and significant rates of unemployment have the highest score (Dvouletý & Orel, 2019). To clear things up, GEM distinguishes between two types of entrepreneurships depending on the motive of the entrepreneurs: necessity vs opportunity entrepreneurship.

Is Entrepreneurship Driven by Necessity or Opportunity?

The term "necessity entrepreneurship" was used by Evans and Leighton (1990) and Reynolds, Storey, and Westhead (1994) to characterise self-employed individuals who enter the market owing to a lack of income and high unemployment rather than the pursuit of a market opportunity. Shopkeepers and marginal entrepreneurs, sometimes known as necessity entrepreneurs, are less driven to develop and create jobs, and their productivity and capital are typically low. Van Stel, Carree, and Thurik (2005) titled necessity-driven (ND) entrepreneurs "refugee entrepreneurs," and elaborated on the shopkeeper effect, which they defined as "start-ups that guarantee employment for the business owners but generate no growth" due to a lack of wage-jobs "coupled with low entry barriers may lead to start-ups that guarantee employment for the business owners but generate no growth" (Evans & Leighton, 1990; Reynolds et al., 1994)

In fact, entrepreneurship that originates from a strong drive of necessity dominates in most MENA nations, including Tunisia – while GEM suggests that the former has a considerably greater rate than the latter. ND entrepreneurs are typically located in the sidelined areas of

business or the informal sector and fall under the tiny and micro-enterprise category (Storey, Fanelli, & Mendez, 2013). ND businesses, according to Naudé (2008), are not considered entrepreneurial since they "do not contribute significantly to economic growth and development". In addition, many people turn to self-employment because of necessity or a desire to avoid the activities of laws, taxes, and other exploitative forces (Naudé, 2008).

The ND entrepreneur is not dismissed by GEM. It simply means that its influence on economic growth and in creation of formal and informal employment is limited since it is largely focused on sustenance rather than profit and growth. According to Wong, Ho, and Autio (2005), entrepreneurship has a major influence on economic growth only when it has a high growth potential. This conclusion is consistent with previous research findings that fast-growing new companies, rather than new firms in general, account for the majority of new job creation. The Global Entrepreneurship Development Index (GEDI) defines entrepreneurship more conservatively than the GEM. However, it comes to the same result as the previous study, demonstrating that an entrepreneurship practice that is based on high-productivity is linked to high income and vice versa (Wong et al., 2005).

Criticism to the Necessity vs. Opportunity Entrepreneurship Dichotomy

Distinguishing between need and opportunity-driven (OD) entrepreneurs in developing economies is far more difficult than it appears. In emerging countries, opportunity is assumed in the following indicators and research (Bushra & Wajiha, 2015). Secondly, simply questioning entrepreneurs about their motivations and objectives is not sufficient. Rather, it reflects constraints imposed by the environment. The flip half of the informality coin, which accounts for the majority of private economic activity in most developing countries, is ND entrepreneurship. It would be oversimplifying to choose between informality and low productivity. They seldom represent an entrepreneur's desire or ambition to develop, profit, or operate with little or no access to cash or capital (Desai, 2011). In reality, many necessity-driven entrepreneurs in underdeveloped nations avoid regulatory frameworks by establishing businesses in the informal sector.

Furthermore, in the most formalistic and abstract meaning, economic opportunity is described as a gap between demand and supply that an entrepreneur identifies and uses in order to produce profits, rents, and growth for his or her firm. Nonetheless, a range of social, economic, and even political factors determine opportunity. As a result, ND entrepreneurship, which accounts for the vast majority of entrepreneurial activity in the unindustrialized world, is not solely to

blame for poor productivity and slow development. Rather, it's an impact that emphasizes the structural and institutional variables that decide whether or not opportunity exists at all (Acs & Virgill, 2010).

GEM provides a detailed and comprehensive interpretation of entrepreneurial practices in a great number of countries and nationalities, that vary in sizes, locality, residence and formal/informal sectors. This make it clear for us that a meaningful comparison of any sorts between underdeveloped, developing and industrialized nations can be made using the same concepts. Motivation, which is the key criterion for separating ND from OD entrepreneurship, has significant consequences in industrialised countries with a solid institutional, legal, and regulatory framework and a level playing field. This is sometimes the case in underdeveloped nations, when uncertainty about the environment, rather than the market, and the preservation of massive information power disparities may prevent enterprises from taking risks (Desai, 2011).

Using business start-ups as the primary metric of entrepreneurship has revealed the same problem. TEA was shown to be higher in developing economies, but with worse productivity and economic prospects, as previously stated (Dvouletý & Orel, 2019). Admission to the formal market, which entails better access to financial and non-financial resources - technology, markets, information, and so on - and, as a result, improved productivity and growth, is what matters most in emerging countries. It's a bit of a tautology to blame ND entrepreneurship for lower productivity in underdeveloped nations. It's analogous to rationalising underdevelopment by citing a lack of funds, although that latter is only a symptom of the former, not the reason. Instead, consider why entrepreneurship is powered by necessity and defined by low production.

Surprisingly, Banerjee and Duflo (2007) discovered that the poor avoid taking chances and are hesitant to “commit themselves mentally to a goal of generating more money.” In response to this result, Naudé (2008) suggests that chances that are unknown may be undesirable (for the poor) since the possible losses may outweigh the prospective rewards. As a result, manager-owners, family firms, and home enterprises frequently struggle to innovate and incorporate new technologies (Banerjee & Duflo, 2007; Naudé, 2008).

In line with these findings, the study of World Economic Forum (*World Economic Forum Global Competitiveness Report*, 2012) on entrepreneurship in the Arab world recommends that necessity-driven microenterprises be excluded from the definition of entrepreneurship. They

are expected to employ just themselves, have few alternative options, and rarely strive to expand the firm beyond their immediate requirements. As a result, executives must pay more attention to entrepreneurs who are truly imaginative — those who build new markets by combining know-how and cash — or who identify and capitalise on a market need or supply imbalance. These types of entrepreneurial activity have a favorable impact on employment creation and economic development.

Such a statement is blatantly contradictory. The report made the strange assumption that some individuals would prefer to limit their activities to subsistence level and forego the opportunity to earn. Surprisingly, the study states that "more than 80% of entrepreneurs in the MENA area operate extremely small-scale enterprises with an enterprise value of less than US$ 15,000 (*World Economic Forum Global Competitiveness Report*, 2012). Many microenterprises do not make it to the next level of growth and become viable small businesses." The statement indicates that there are major barriers to the establishment and survival of a broad base of private businesses, which prevent them from becoming small businesses (Taneja, Pryor, & Hayek, 2016). Instead of implementing policies that benefit those who are already favoured, as the study suggested, public policy should address these limitations with the goal of decreasing the obstacles to expansion of the greatest population of private companies.

The institutional factor appears to be at play in the OECD report on new entrepreneurs and high-performance firms in MENA. "A limited number of well-established companies in the region profit disproportionately from strong market positions," according to the research. This is due to restrictive regulatory frameworks and networks of corporate, financial, and political interests that have little incentives to innovate and push change. As a result, compared to OECD nations and dynamic emerging markets, the overall number of companies driven by economic opportunity and functioning nominally in higher productivity areas is lower (Storey et al., 2013).

Finally, economic analysis ignores a number of variables that influence risk and opportunity in this context, such as social marginalisation, the distinctiveness of market institutions, the imbalance of property rights, and a cronyistic setting where power and information discrepancies create politically-inspired prospects rather than market opportunities (Vecchio, 2003). As a result, when the entrepreneurial opportunity is not available, there is little area to analyse motivation, ambition, or particular entrepreneurial talent.

Lundström and Stevenson (2002) deconstructs the necessity-versus-opportunity-driven entrepreneurial divide in this way. “If people are extremely driven to establish enterprises but lack capacity (lack of entrepreneurial skills), even if they have technical abilities, the business is unlikely to expand beyond the fledgling stage unless the environment is very helpful and nurturing”. Of course, the ideal condition for a society would be for people to be highly motivated, have a lot of opportunities, and have a lot of skills” (Lundström & Stevenson, 2002).

As a result, studying entrepreneurs in the undeveloped nations cannot be done apart from the larger context of economic transition to capitalism. Entrepreneurship is inextricably linked to larger business issues such as the capacity building of private property protection, which necessarily involves, among other things, a highly functional rule of law, enforcing contracts, real estate registration, solid financial intermediation, access to information and competition.

In the developing world, entrepreneurship cannot be separated from other concerns such as job creation, poverty relief, and growth enhancement. It is not the same as the policy and scholarly concerns about entrepreneurship as a source of growth and innovation in the Global North. “The concern is with entrepreneurship starting and accelerating growth and providing impetus to the structural transformation of economies in developing countries; in advanced economies, the concern is largely with obtaining new sources of productivity growth, which underpins competitiveness,” according to Naudé (2008). In reality, the notion of entrepreneurship was introduced to development studies to answer issues about poverty alleviation, economic upgrading, and unemployment (Naudé, 2008).

Finally, eliminating ND entrepreneurship in favour of focusing on high-growth enterprises is equivalent to throwing out the baby with the bathwater. It will likely to perpetuate the same prejudices against small and microbusinesses, female entrepreneurs, and the informal sector at the policy level. “Micro, informal (non-registered), and necessity-driven companies are vital generators of revenue and employment, particularly for the lowest sections of society” (A. Hughes, 2000). “Even necessity driven enterprises are a seedbed for experimentation and could lead to the development of higher-opportunity ventures in the future, especially for the better educated entrepreneurs,” as suggested in an entrepreneurial study (Stevenson, 2010).

Some academics have studied and debated frugal innovation in low-tech economies (Zeschky, Widenmayer, & Gassmann, 2011). With reference to emerging economies such as China and India, this academic group affirmed that innovation might start happening in response to resource limitations (Christensen, 2013; Ray & Ray, 2009). Such concepts are important

because they attempt to capture how things are evolving on the ground in a wide range of developing countries. Furthermore, they do not limit themselves to high-tech industries that may have great development potential but are typically segregated from the economy's core sectors.

Similarly, many academics regard entrepreneurship as requiring a high level of growth potential. These expansion-oriented businesses are those that expand and generate jobs, contributing to the broader economy's growth. Only firms with a strong growth potential appear to overlap with opportunity-driven entrepreneurs. Growth-oriented firms affect entrepreneurs – the missing middle (gazelles), according to organization for economic cooperation and development (OECD), research on high-grown businesses in the MENA area – are differentiated by their capacity to expand economies quicker and further than micro-enterprises or little companies. They also provide more economic value and create more new employment than long-established firms (OECD, 2013).

The OECD (2013) research highlights the financial and non-financial hurdles that small and microbusinesses confront in MENA nations, and proposes a solution by focusing on enterprises with strong development potential. However, the research recognizes that identifying gazelles in underdeveloped countries is difficult. Ex ante or ex post, it's unclear if high-growth firms can be identified. Focusing on high-performing companies may result in the repetition of marginalization and exclusion patterns against the region's widest base of private entrepreneurs, which are tiny and micro-firms functioning in the informal sector. In reality, the region's "missing middle," as noted by OECD (2013) and Stevenson (2010), suggests that there is a structural and institutional issue preventing small and micro-firms from ever realizing their development potential and transitioning into middle-sized businesses. As a result, a solid development plan should not favour the "winners," but rather help tiny and micro-firms get beyond board policies and institutional instruments that may function as roadblocks to formal market entry and expansion of the high-growth but underserved middle (OECD, 2013; Stevenson, 2010).

Considering the debate above, the question of whether definition of entrepreneurship is best for studying the situations of Egypt and Tunisia arises. The one proposed by Lundström and Stevenson (2002), who used a broader definition of entrepreneurship, is the most appropriate: It's not just something that entrepreneurs do; it's a social phenomenon that occurs in the context of a larger society and involves a variety of players. According to Lundström and Stevenson

(2002) Entrepreneurship is a system that comprises current and future businesspeople, institutions, and government activities, as well as the intended policy goal of more entrepreneurial behavior. The aim of governments and institutions is to create circumstances that generate a steady stream of new enterprises (Lundström & Stevenson, 2002).

2.5 Entrepreneurial Process and Barriers Among Women of Developing Countries

A study by Ghouse, McElwee, Meaton, and Durrah (2017) looked at the obstacles that rural women entrepreneurs face in Oman. The study focused on women who desire to do more than their conventional household duties and live in rural and mountain locations. It highlights a variety of challenges, including the struggle to secure financing for new businesses and creative endeavours, a lack of skill-based training, and a lack of family support. Despite the fact that Oman is one of the more advanced Arab nations in terms of gender equality and women's empowerment, the findings revealed socio-cultural issues that stifle women's entrepreneurial venture development and success. The authors suggested that Omani authorities consider how women entrepreneurs may be better supported so that they could vary their family income by starting new firms while also contributing to the region's socioeconomic progress (Ghouse et al., 2017).

The study of Afza, Osman, and Rashid (2010) was conducted with the purpose to determine the enterprising behaviour of enterprise-less rural women entrepreneurs living in remote areas of Pakistan in order to assess their enterprising behaviour, their capacity as women to handle business marketing, and finally the factors that influence their decision-making environment. Rural women's entrepreneurship is a new phenomenon that is gaining traction at this time of economic downturn. Women's rural entrepreneurship is being promoted across the world in order to control economic imbalances in society and to empower women socially and economically. In the lack of a baseline study, the issue of rural women entrepreneurship in Pakistan was understudied, and governmental initiatives to encourage rural women's interest in entrepreneurship were misdirected. As a result, the research was directed to evaluate the entrepreneurial behaviour of rural women entrepreneurs, their ability to manage their firms' marketing, and the variables that impact their decision-making environment. Structured interviews with enterprise-less women entrepreneurs were used to obtain primary data from the neighboring rural areas of two selected cities in Khyber Pakhtunkhwa, Pakistan. Study findings revealed that rural women entrepreneurs in Pakistan's enterprising behaviour was

being harmed by a lack of comprehension of the entrepreneurial process. Furthermore, their inability to manage their firms' management and marketing affairs had a negative impact on their development and profitability (Afza et al., 2010).

Fosić, Kristić, and Trusić (2017) designed a study to evaluate motivating variables of women entrepreneurs working in Croatia. A total of 1,157 Eastern Croatia respondents were undertaken to evaluate the variables of interest. The main goal of the study was to find out the most peculiar motives which decides the prospective future decision makings of a women entrepreneur to establish their own businesses. According to the findings, women were more financially driven than males. As concluding remarks the author suggested that the fact that earlier study on real-life female entrepreneurs found slightly different reasons indicated that there still existed an opportunity for improvement in entrepreneurship education (Fosić et al., 2017).

Further, Mwobobia (2012) sought to identify the challenges facing small scale women entrepreneurs in Kenya and initiatives put in place to counter the challenges. Women tended to own businesses that were traditionally linked with women's responsibilities, such as hairstyling. SMEs play a significant role in the Kenyan economy, such as employment creation, but they confront several obstacles, such as a lack of money, prejudice, issues with the city council, multiple obligations, limited access to justice, and a lack of knowledge. The study found that a variety of public and private sector stakeholders were working to empower women entrepreneurs in Kenya (Mwobobia, 2012).

Anggadwita, Mulyaningsih, Ramadani, and Arwiyah (2015) researched with the purpose to present an overview of the idea and dimensions of women entrepreneurs from an Islamic viewpoint, whether as a social or spiritual conviction. The study was performed on 150 Muslim women entrepreneurs in Indonesia as a key data source in order to explore their issues and hurdles, as well as their desire to pursue a career in entrepreneurship. According to the results of the survey, Muslim women entrepreneurs in Indonesia conducted their businesses as a kind of prayer to God. In Islam, whatever must have the purpose to be blessed in order for it to be perpetuated. Entrepreneurship is a wonderful profession that has earned a respectable place in Islam, since Allah has authorized the selling and acquisition of goods while forbidding usury (Al-Baqarah: 275). Furthermore, the survey results showed that the majority of respondents started their firm when they were 25 years old. High school grads dominate in terms of educational background. The main challenges for Muslim women entrepreneurs in Indonesia

were connected to the business environment, which included external issues such as competition and availability of access to information and capital loans from financial institutions (Anggadwita et al., 2015).

The relevance of motivating factors in the entrepreneurial success of women in the Indian environment was highlighted by Agarwal, Agrawal, and Agrawal (2018). Women entrepreneurs data from several locations in Uttar Pradesh was used for this analysis. The acquired data was analysed using exploratory factor analysis (EFA), and the components associated to entrepreneurial motivation and success were investigated. Using regression coefficients, the researchers discovered a positive association between motivational (Independence, earning, satisfaction, security and recognition) and success components (Competitiveness, government support, market awareness, social characteristics and personal characteristics). Women's enterprises must be revitalized in order to sustain gender justice and equality across the world (Agarwal & Lenka, 2016).

Kungwansupaphan and Leihaothabam (2016) devised a study with the goal to look at the roles of four distinct capital variables in rural women's entrepreneurship: human, social, institutional, and financial capitals. The emphasis was on the handloom industry in Manipur, India. This work employed qualitative research technique and a case study approach. In-depth interviews were used to obtain data for seven examples of rural women entrepreneurs. Findings of the study revealed that the purchase of each source of money throughout the business start-up phase varies, and family entrepreneurial experiences have a big impact on the startup period. Women entrepreneurs with a history in the handloom industry rely on internal resources to acquire and utilize human and social capital for their firms. They often obtain financial funding from internal sources and do not use government resources during the startup phase of a firm. Because, each capital element is interconnected, attaining integration among them were believed to cause significant improvement in entrepreneurial performance (Kungwansupaphan & Leihaothabam, 2016).

2.6 Tunisia and Women Entrepreneurship

Tunisia, a Muslim country in North Africa, is a contemporary Arab republic attempting to catch up with more industrialized countries. Tunisia has been inhabited by indigenous Berbers since antiquity. The Ottoman Empire took authority in 1574 and ruled for nearly 300 years, until Tunisia was captured by the French in 1881. Tunisia became independent in 1957, thanks to the efforts of Habib Bourguiba, who established the Tunisian Republic. The majority of

Tunisian women were veiled, illiterate, and performed household tasks for their husbands and fathers when Tunisia was still a French colony. With the start of the country's independence struggle, however, a voice for gender equality arose (Moghadam, 2005). In fact, by the early 20th century, many urban families were educating their daughters. According to the data presented by Statistica, the current population of Tunisia is approximately 12 million with 5.96 million females and 5.86 million males contributing to the overall figure (Statistica, 2021). According to another reported published by Trading Economics (2021), the rate of urbanization is 69% in 2021 which was reported to be 66% in 2010. This shows that people are favoring to migrate to urban areas.

Regional Economic Disparities in Tunisia

Former President Moncef Marzouki observed, "When the revolution of December 2010 erupted in provincial towns such as Kasserine, Thala, and Douz, it was because people there could no longer bear their poverty and humiliation in contrast to the wealth of the developed coastal cities - and the coastal cities themselves could no longer put up with the corruption and denial of France" (Fritsch & Mueller, 2004). Tunisia is currently at a crossroads following a revolution that shocked the Arab world by igniting the Arab Spring and led the country onto a path of democratic economic change. However, it continues to face significant challenges, including unemployment and poverty, all of which have a direct impact on the youth population. In 1999, Tunisia's unemployment rate was at 31.25% for youth, a rapid spike was observed in the year 2011 where the unemployment rate reached 42.63%, the most recent data from 2019 suggests a youth unemployment of 35.78% in Tunisia (Statistica, 2019).

Background

Regional inequalities in Tunisia are firmly established on a structural and institutional level, resulting in a sense of social unease in the country's interior. Under the Ben Ali administration, an ambitious political and economic development strategy focused on the coastal areas, while distant parts of the nation remained undeveloped and isolated from modernization. Indeed, the previous president placed a strong emphasis on tourism and the textile sector, as well as encouraging the consolidation of companies along the shore, particularly through the use of foreign supply chains (Gasse & Tremblay, 2011). The main highways are extending along the coast, isolating the interior areas geographically. This strategy has a direct influence on infrastructure. "Historically, infrastructure investment has been neglected, physically isolating communities and undermining their efforts to attract foreign companies to vast tracts of land

and select natural resources; similarly, irrigation investment has limited these regions' potential agricultural bounty, limiting many farmers' ability to use the elements available to them" (Amara & Jemmali, 2018).

- **High Rates of Unemployment**

  Regional differences have resulted in a rise in unemployment in the country's interior areas, which are much poorer than the rest. Indeed, in 2009, more than 35% of persons aged 18 to 29 in the Central Western area (Sidi Bouzid, Kasserine, Kairouan) were unemployed, compared to 26% in the Central Eastern region (Monastir, Sousse, Mahdia, Sfax). Youth unemployment is notably high in the northwest (Beja, Jendouba, Kef, Siliana) and south west (Gafsa, Tozeur, Kebili), with rates of 45 percent and more over 50 percent, respectively, compared to 30 percent in Greater Tunis. The large disparity between them confirms, unsurprisingly, that young people aged 18 to 29 residing in Tunisia's western regions confront a more challenging job market than those living near the coast. Due to a greater share of women in the total Tunisian population and limited resources, women suffer more in these circumstances as compared to men (Stampini & Verdier-Chouchane, 2011).

- **Health Care System: An Inability to Deliver Services**

  One of the most severe consequences of our record of underinvestment in Tunisia's interior regions, which accounts for only 35% of public investment, is the inadequate healthcare system in those areas. Indeed, "in the Kasserine region, there are 140,000 inhabitants for every one pediatrician (the country's second highest ratio)" (African Development Bank (2011). Interior regions are neglected and suffer from a significant lack of infrastructure in terms of healthcare demands (Brisson & Krontiris, 2012).

- **Education System**

According to The Reboot's study, the number of illiterate persons in the Kasserine area exceeds "15% of the young people between the ages of 10 and 29". The absence of infrastructure, such as schools, transportation, and roads, makes it difficult to develop an effective education system, since distance becomes a barrier. Poverty is a serious setback in those areas once again. As a result, "a young girl from coastal Nabeul will likely be relatively well educated, have her health requirements substantially addressed, commute to school on excellent roads, and have access to technology that connect her to the rest of the globe on par with areas of Europe". In

a remote community, her peer is less likely to finish high school (Brisson & Krontiris, 2012). More broadly, education and unemployment are linked. Graduates' unemployment is first and mostly linked to their bachelor test outcomes. Indeed, average results inevitably lead to a limited number of further education alternatives. Those alternatives frequently result in a clogged labour market (Broecke, 2013). Unemployment is also linked to one's geographic origins and the occupational group to which one belongs. More precisely, unemployment among university graduates is a product of students', parents', and instructors' individual dedication, as well as a type of geographical heritage and societal handicap. Personal efforts are essential, but they appear to be insignificant in comparison to the obstructive regional and societal narrative (Clarke, 2018). To put it another way, neither on a national nor regional level, the school no longer serves as a social elevator.

- **Impact of Entrepreneurship on Regional Development**

Foelster (2000) tried to find the possible link between entrepreneurship and regional development by examining the impact of self-employment, or entrepreneurship in general, in several Swedish areas. "Significant evidence for the concept that greater self-employment has a beneficial influence on employment" came from his research. He himself pointed out two major flaws in his research. The first was that we must consider the many forms of entrepreneurship and adjust public policy accordingly, because "it is far from obvious that this artificially generated self-employment has the same features and employment impacts." The second issue was that the method used to simulate the lag between the peak of start-up activity and its influence on employment, which was used as a measure of economic growth, was inaccurate (Foelster, 2000).

From a German viewpoint, Fritsch and Mueller (2004) offered another assessment of the influence of entrepreneurship on the regional level. They did not evaluate regional economic growth just in terms of job creation; instead, they recognized that the actual additional value came from "supply-side impacts," such as increased efficiency, more innovation entry, and faster structural transformation (Fritsch & Mueller, 2004).

2.7 Rural Tunisia and the Status of Entrepreneurship

Tunisia has made significant progress in moving to an open and democratic style of administration since the Arab Spring in 2011. Following in the footsteps of colonial powers, modern Arab governments have focused on the socioeconomic growth of cities, notably the capital, while neglecting the provinces. Peasants are often seen by rulers and nationalist

intellectuals as backward and stuck in "tradition," which can only obstruct the elites' advance toward modernity. Agriculture is critical to Tunisia's food security and is an important part of the Tunisian economy. This is why majority of the rural population is related to agriculture for their earnings and daily living. Despite Tunisia's gender equality legislation, few young Tunisian women work. In rural Tunisia, less than one in five young women (18.5 percent) and less than two in five in urban Tunisia (39.8%) have work. Women have much lower employment rates than males among Tunisian young people who are not in education, employment, or training World Bank (2013). Tunisia's poverty rate remains high: 15.5 percent of the population lived below the national poverty line in 2016, with a significant difference between urban (10%) and rural (10%) areas (26 per cent). There are significant differences between regions rich in natural resources, such as the North East (10.3%), and environmentally vulnerable areas, such as the mountainous areas of the Central West (32.3%) and the North West (25.7%), and desert areas in the southern parts of the country, where poverty rates are high (19.7 per cent) (IFAD, 2020). In Tunisia, rural poverty is caused by regional inequalities in basic infrastructure and economic activity, which influence access to transportation, education, health, employment, and housing (Hasnaoui & Belhadj, 2016). Smallholder farmers confront obstacles such as restricted access to financial services, climate change, and a lack of training and assistance that would allow them to progress further in their growth.

Self-Employed Youth

Self-employment is rather frequent among young males, with one out of every ten being self-employed. In urban Tunisia, almost 13.1 percent of all young males are self-employed, about twice as high as the 7.9 percent in rural Tunisia. The unusually high proportion of young men who start businesses indicates the presence of a strong entrepreneurial spirit mixed with a scarcity of job options. Self-employment among older generations, particularly among males, is significantly greater, ranging from 18 percent in rural regions to 22.7 percent in metropolitan areas among those aged 30 to 59. Self-employment among young women, on the other hand, is almost non-existent, with only 2.2 percent in rural regions and 1.5 percent in metropolitan areas. Young women working from home, in offices, or in shops would likely be able to develop value-added companies thanks to a diverse range of market niches, reasonably high education levels, and excellent internet abilities. Women in both rural and urban regions indicated a great desire to create their own revenue-generating businesses (World Bank, 2013).

Overall, self-employment is more prevalent in the coastal and southern regions. The rate of youth self-employment is lowest in the interior, with only 8.1 percent of young males working

for themselves. In the coastline area and the southern governorates, however, 12.1 percent of young males are self-employed. As previously said, self-employment among young women is an uncommon occurrence, and even in the coastal region, where female self-employment is largest, it only accounts for 2.1 percent of the total. Almost all self-employed teenagers operate without any sort of legal registration, leaving them without access to money and frequently subject to abuse and extortion by police and other government authorities. The difficulty of the administrative processes and laws necessary to register a small business is reflected in the fact that almost all self-employed youngsters work informally (World Bank, 2013).

Skill Levels of Tunisian Youth

Self-employed adolescents have relatively low levels of education, and the majority have not completed secondary school. Rural regions have the lowest educational levels, with the majority of self-employed youngsters dropping out before completing secondary school (83.0 percent). In rural Tunisia, around one out of every ten self-employed youngsters lack a formal education. The majority of young entrepreneurs operate in low-productivity industries with minimal financial rewards. However, 30–40% of young entrepreneurs work in high-productivity industries, indicating entrepreneurship's potential. In rural regions, 45.4 percent of young entrepreneurs operate small companies in the service sector, which includes contemporary information and communication technology, whereas in urban areas, 52.1 percent do so. Young women may now establish companies and earn money more easily thanks to modern technologies. Agriculture and food processing employ 36.4 percent of young entrepreneurs in rural regions, compared to 10.8 percent in urban areas. Manufacturing and industry employ one out of every five young urban entrepreneurs (20.9%), compared to only 7.9% of rural entrepreneurs (World Bank 2013).

Challenges and Investment Opportunities of Tunisian Youth

Local innovation centers might aid Tunisia's young entrepreneurs by creating a business-friendly atmosphere and assisting informal businesses in being properly formed. New innovation centers and cyber parks, which include company incubators and workspaces that frequently conduct competitive startups with investors, have started to provide success stories that encourage new entrepreneurs (Powers & Yaros, 2012). Online networks assist to connect individuals and give extra training and mentorship to young entrepreneurs, particularly in rural regions where face-to-face meetings and trainings are expensive to organize. Self-employed youngsters can benefit from online training to learn skills not taught in schools or colleges.

Self-employed youngsters can benefit from online training to learn skills not taught in schools or colleges (Cava, Rossotto, & Paradi-Guilford, 2011).

2.8 Association of Different Factors Influencing Entrepreneurship in Women

According to the Global Entrepreneurship Monitor, an estimated 329 million women were establishing or operating enterprises in 83 economies throughout the world (GEM). While the majority of these nations recorded lower start-up rates among women than men (D. Kelley, Brush, Greene, Herrington, & Kew, 2014). Human capital resources, including as education, experience, attitudes, beliefs, and perceptions, are the most essential resources that a new entrepreneur contributes to a new enterprise (Brush, Greene, & Hart, 2001; Khazami & Lakner, 2021a). Klyver and Schenkel (2013) investigated a variety of human capital variables using GEM data from 41 countries and discovered that human capital, measured as formal education, prior entrepreneurial experience, and self-efficacy in the form of capability perceptions, is positively associated with emerging entrepreneurship. Human capital may thus reflect either objective or observable aspects, such as formal schooling, or subjective and internal elements, such as self-perceptions (Klyver & Schenkel, 2013).

Formal education can help with the collection of explicit information, which can lead to important skills for entrepreneurs. Several studies have revealed that higher levels of education were associated with a higher probability of becoming an aspiring or fledgling entrepreneur or firm founder (Delmar & Davidsson, 2000; Rotefoss & Kolvereid, 2005). Cognitive beliefs of one's talents and abilities impact behaviours, thus the more one feels she has the capabilities or skills to start a firm, the more likely she is to pursue entrepreneurship as a feasible career option. According to research, more conviction in one's ability to pursue entrepreneurial action increases startup activity (Clercq & Arenius, 2006; Krueger Jr, Reilly, & Carsrud, 2000). Furthermore, perceptions of skills are linked to thoughts about the desirability of a potential opportunity, which may or may not be influenced by schooling (Corbett, 2007). Although earlier study depicted entrepreneurship as an intrinsic behaviour (J. L. Thompson, 1999), it is now widely understood that this mental process and individuals' entrepreneurship decisions may be strongly influenced by entrepreneurship education and an entrepreneurial environment in educational institutes (Fayolle, 2008). Empirical studies demonstrated that when job experience and education levels are similar between men and women, there are no significant gender disparities among entrepreneurs (Greene, Hart, Gatewood, Brush, & Carter, 2003). This

implies that gender equality in education will be connected with gender equality in entrepreneurship. Other researches discovered that education (Cetindamar, Gupta, Karadeniz, & Egrican, 2012), particularly entrepreneurship education (Wilson, Kickul, & Marlino, 2007), has a larger effect in creating entrepreneurial self-efficacy in women than in men, although it is unclear if self-efficacy has a distinct influence on entrepreneurial activities between the genders.

The political situation and policies may have distinct effects on the genders. Ardagna and Lusardi (2010) used GEM and the World Bank Doing Business database to discover that regulation moderates the influence of gender on entrepreneurship, with women in more regulated settings being more likely than males to start enterprises out of need. Another political environment aspect is women's political power or visibility (Ardagna & Lusardi, 2010). Women in political roles can serve as role models for leadership, with studies indicating a link between women's political authority and female entrepreneurship rates (Goltz, Buche, & Pathak, 2015). This shows that the amount to which women participate in the political institutions of society has a favorable impact on the rates of women's entrepreneurship. EI varies substantially between cultures and ethnicities. Some cultures regard entrepreneurship as a mark of inventiveness and success, while others regard it as an incapacity to accomplish anything and hence as a decision arising from a lack of alternatives (Lee & Wong, 2004). Thus, a favourable environment for beginning a new firm, such as the availability of incentives and training for entrepreneurs, low-interest loans, and special prizes, may make entrepreneurship an appealing professional option (Davidsson & Henrekson, 2002). In addition, cultural variables influence a person's employment choice and desire to become an entrepreneur (Thornton, Ribeiro-Soriano, & Urbano, 2011). According to Hofstede, Hofstede, and Minkov (2005) countries with high masculinity and high-power distance (Shinnar, Giacomin, & Janssen, 2012) promote entrepreneurial activity and a favourable environment for entrepreneurship. Furthermore, individualist cultures with a low level of uncertainty avoidance are connected with a more conducive atmosphere for entrepreneurship and a larger share of self-employment. The institutional approach, according to Pfau-Effinger (2000), ignores the relevance of culture in understanding disparities and changes in female labour force participation. Although the author does not dispute the importance of institutions, she contends that past research has been overly deterministic about their impact and has ignored the interplay between culture and structure. According to her, understanding disparities in female labour force participation requires an awareness of a country's cultural past and its interaction with

welfare state institutions (Pfau-Effinger, 2000). Koburtay, Syed, and Haloub (2020) found that tribalism and Bedouin customs inherent in interpretations and practises of participants from Jordan and their faith (together with the existing legal framework) contribute to gender disparities in employment and positions of power. His findings also showed that, despite Islamic requirements for fairness and justice in employment (haqq and adl), tribal and Bedouin traditions limit women's employment through patriarchal interpretations of Islam which shows the link between culture and demotivation of women employment (Koburtay et al., 2020).

Though culture alone is providing sufficient evidence for impacting EI among women yet there is another important factor that travels side by side with culture. That factor is religion of a person or religious beliefs of a society. Bartkowski and Read (2003) suggested that religion has a significant impact on women's gender role attitudes. Religion is the source of traditional notions about family life and gender roles (Read & Eagle, 2011). Discussions on family values, including particular duties and responsibilities for men and women, have long been an important aspect of religious debate (Edgell, 2013). Conservative faiths, in particular, prefer to promote gender essentialist beliefs and have produced variations of the different spheres: men's activities center on the public realm (job), while women's activities focus on the private sphere (the home). As an outcome, a woman's religion will determine how she views her role in the home, her values and goals about the family and work, and the choices she makes regarding her work-family balance (Bendroth, 2002). Not only this, religion is proving to be the hot topic in these desperate times and it is effecting the entrepreneurial opportunities and intentions of females. Karimi (2018) attempted to discuss the wearing of hijab at workplace in an Islamophobic French culture. The studied population of Muslim women revealed that prior job-related prejudice had driven these women to start their own businesses. Due to stigmatization for being outwardly Muslims, these ladies continued their growth in a secure atmosphere, away from the humiliations and prejudices that they all too frequently faced. This marginalization allowed them to reimagine the values that will guide their work: Islamic ethics, unity, and good will. In this way, institutional constraints, unpleasant experiences of discrimination, and social exclusion become motivators for entrepreneurship (Karimi, 2018).

As discussed early, differences in economic development level or environment between nations might differentiate entrepreneurial aim. The economic circumstances of nations vary substantially, particularly between industrialized and non-developed countries, and these variations influence the level and kind of entrepreneurial activity (Iakovleva, Kolvereid, & Stephan, 2011). Furthermore, the contribution of entrepreneurs to an economy varies

depending on the country's economic status. Gathered evidence, in particular, suggesting an underlying U-shaped link between the amount of firm ownership (self-employment) and per capita income. Carree, Van Stel, Thurik, and Wennekers (2002) hypothesized a U-shaped link between per capita income and the labour force rate of self-employment (business ownership) (Carree et al., 2002). They showed empirical support for this hypothesis in a multiple-equation regression study utilizing data from 23 OECD nations from 1976 to 1996. Furthermore, Wennekers, Van Wennekers, Thurik, and Reynolds (2005) established support for a U-shaped association by using regression model on global entrepreneurship (GEM) 2002 data. Their findings implied that a 'natural rate' of nascent entrepreneurship is regulated to some extent by 'rules' related to economic development level. The most promising public policy options for the most developed countries were boosting incentive structures for establishing and increasing commercial exploitation of research achievements. On the other hand, developing countries, were better suited seeking scale economies, supporting foreign direct investment, and developing management education. GEM corroborated this diversity in its research, claiming that there are considerable disparities across nations in terms of entrepreneurship and entrepreneurial activity, with emerging countries being more prevalent than industrialised countries (Bosma, Holvoet, & Crijns, 2013). Similarly, Iakovleva et al. (2011) discovered that university students in impoverished nations are more likely than those in rich countries to have entrepreneurial intentions. According to the data, respondents from poor nations showed more EI than those from rich countries. Furthermore, respondents from developing nations outperformed those from developed countries on the theory's antecedents of entrepreneurial intentions (EI) – attitudes (EA), subjective norms (SN) and perceived behavioural control (PBC) (Iakovleva et al., 2011).

2.9 The development of a model

Women's entrepreneurial development is a means of empowering women. Entrepreneurial empowerment contributes to self-fulfillment and raises women's awareness of their status, existence, rights, and place in society. Women's entrepreneurship has been recognized as an important untapped source of economic growth over the last decade. Entrepreneurship is recognised as the key driver behind economic growth and advancement in the entrepreneurial approach to regional development; without it, other development aspects would be lost or wasted. Rural women's economic and social growth is critical to society's and nation's overall economic development. Women in rural areas are increasingly running their own businesses,

yet their entrepreneurial potential, management skills, and socioeconomic contributions are often ignored (Mishra & Kiran, 2014).

The Theory of Reasoned Action (TRA) was created in 1975 by Martian Fishbein and Icek Azjien. The Theory of Reasoned Action is founded on prior research that began as an attitude theory (Vallerand, Deshaies, Cuerrier, Pelletier, & Mongeau, 1992). According to the notion, an individual's behavioural intention is determined by subjective norms and personal attitude toward behavior. There are four major constructs in the theory: attitude, subjective norm, behavioural intentions, and behavior. Behavioral intention assesses a person's willingness to carry out a given action or behaviour. Attitude is comprised of one's views about the deficiencies of carrying out the conduct multiplied by one's appraisal of the shortcomings. SN refers to the social pressure a person feels in carrying out or not carrying out a given conduct and is produced by one's viewpoint (Fishbein & Ajzen, 1977).

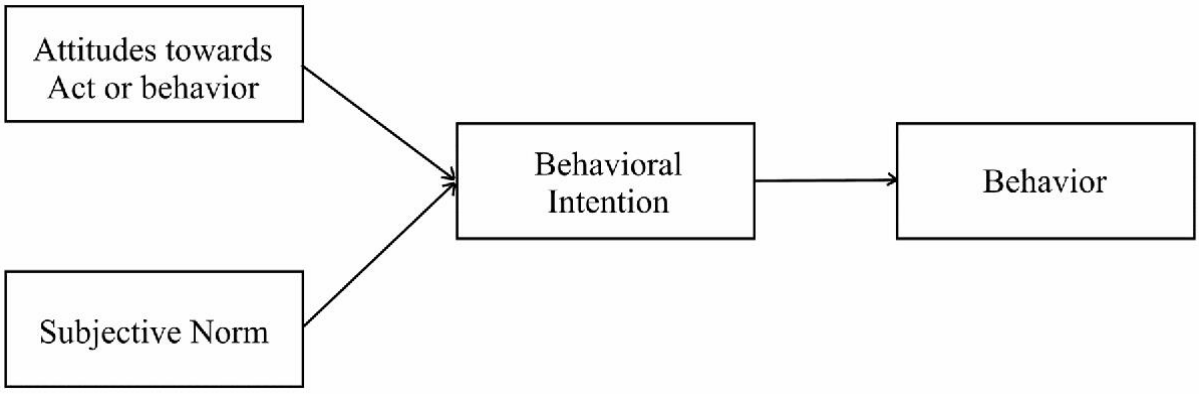

Figure 1: Factors effecting dimensions of Theory of Reasoned Action (Fishbein, 1979)

TRA is used in a wide range of researches. TRA is used to examine citizen voting behaviour in a research by Mohanachandran and Govindarajo (2020). In the food choice sector Petrovici and Paliwoda (2008) used TRA as a framework to investigate food choice factors. TRA is also present in the research of Hansen, Jensen, and Solgaard (2004), which attempted to assess the capacity in predicting customer online grocery shopping intention. Furthermore, Rueda Sampedro, Fernández-Laviada, and Herrero Crespo (2013) applied TRA in the field of entrepreneurship to assess the entrepreneurial attitude of university students. Several other studies discussed by Lortie and Castogiovanni (2015) also used TRA model in entrepreneurial researches.

In 1985, Ajzen introduced the notion of planned behavior (TPB) (Ajzen, 1985). It is an extension of the TRA that addresses the restriction of the theory's original work when an individual lacks the pure volitional control that the theory of reasoned action presupposes (Ajzen, 1991b). Madden and Ellen (1992) said that the TPB might transcend the constraint of the TRA by including beliefs regarding the presence of requisite resources and opportunities to undertake a specific activity. The TRA also included a new construct, PBC, making the TPB five components in total: attitude, SN, PBC, behavioural intention, and behaviour. PBC is defined as a subjective experience of how simple or difficult a certain behaviour is to carry out (Ajzen, 1991b).

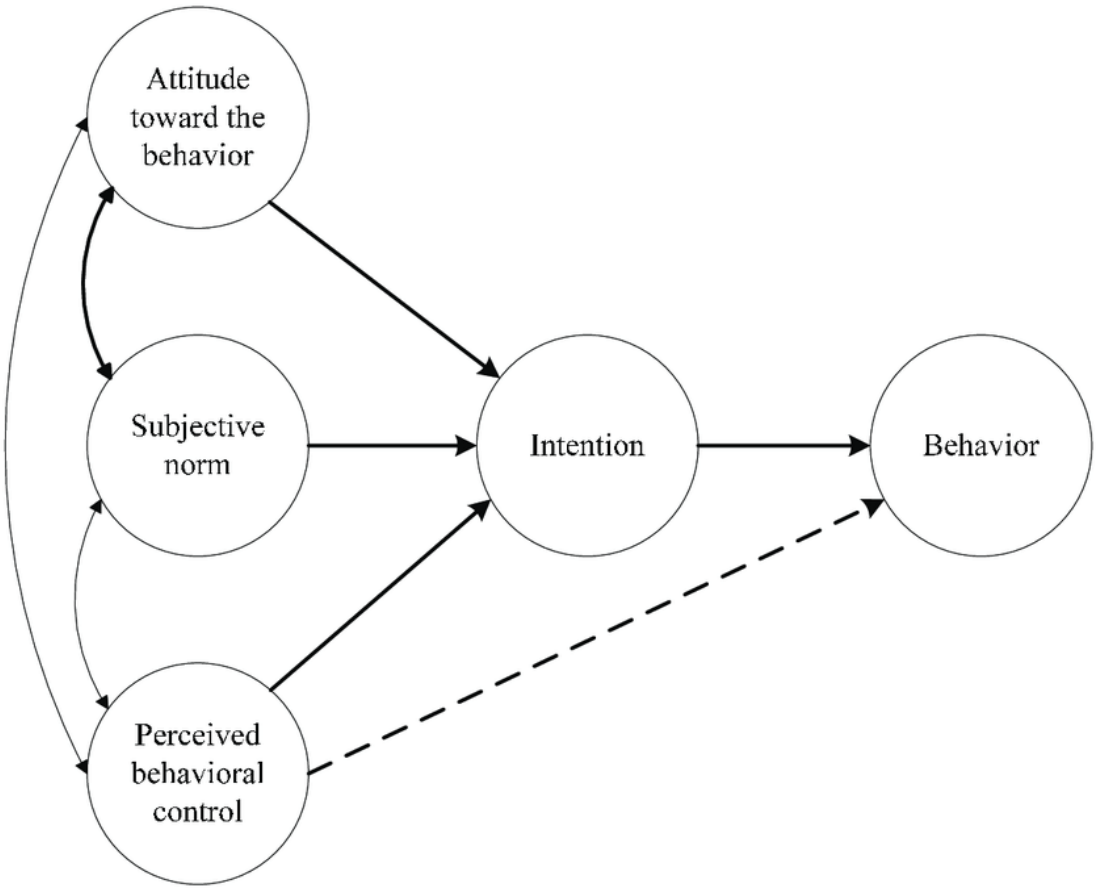

Figure 2: Model for Theory of Planned Behavior (Ajzen, 1991a, 1991b)

The TPB follows in the footsteps of the idea of reasoned action in terms of general applicability. It has been used in the study of consumer behavior, health, food behavior etc. TPB has also been employed as a foundation for analyzing entrepreneurial intents in the entrepreneurship literature (Liñán & Chen, 2009). Personal entrepreneurial intention is impacted by personal

attitude, subjective standards, and PBC, according to the so-called entrepreneurial intents paradigm. Personal attitude, in particular, relates to a person's favorable or negative opinion and appraisal of being an entrepreneur. SN assess the perceived societal pressures associated with becoming an entrepreneur. In certain communities, for example, being self-employed is not regarded as a suitable vocation for a woman. PBC is the sense of the ease or difficulty of becoming an entrepreneur, which is influenced by "past experience" and "expected barriers and difficulties" (Ajzen, 1991b). Essentially, attitudes drive perceptions, which influence intentions and, eventually, behaviour - engaging in entrepreneurial activity (Ajzen, 2002).

In addition to this, various studies included some other factors including risk taking behavior and government support as internal and external factors which also showed to be affecting EI of individuals (Ali, Tajddini, ur Rehman, Ali, & Ahmed, 2010; Chipeta & Surujlal, 2017; Do Paço, Ferreira, Raposo, Rodrigues, & Dinis, 2015; M. J. Malebana, 2017; Zhang, Wang, & Owen, 2015).

Based on the TPB model of entrepreneurship and on previous researches, several factors were selected as an initial phase. A small-scale survey was conducted for the assessment and existence of those factors in the study area. Only those factors which were having effects on majority of the population were considered for this study. These factors included attitude, subjective norms, risk taking behavior, family support, perceived behavioral control, government effectiveness.

The impact of attitude on entrepreneurial intentions

It was discovered that attitude and intention are substantially linked. Based on respondents' attitudes, a linear regression was developed to predict intention to use. The intention to use was greatly influenced by one's attitude and led to either positive or negative intentions based on the mindset of the individuals (Hussein, Oon, & Fikry, 2017). Women confront unique cultural, economic, and societal hurdles when it comes to female entrepreneurs and economic ventures. Such barriers are particularly evident in rural areas as a result of distinct cultural and socioeconomic situations. On the route to business, rural women confront greater difficulties than urban women (Movahedi & Yaghoubi-Farani, 2012). Vamvaka, Stoforos, Palaskas, and Botsaris (2020) used a multi-group SEM with the goal to identify gender-related differences in the levels of and interrelationships between attitude towards entrepreneurship The study's sample included 441 Greek tertiary education undergraduate computer technology students. According to the findings, attitude had two components: one instrumental and one affective;

entrepreneurial intention has three components: choice intention, commitment to entrepreneurship, and nascent entrepreneurship. The data also revealed that emotional attitude and perceived self-efficacy are by far the best indicators of intention, emphasising the importance of emotions in the entrepreneurial process. This study also indicated that the association between entrepreneurial commitment and fledgling entrepreneurship is higher in males than in women. Data suggested that gender is a mediator of the entrepreneurial intention-action translation if nascent entrepreneurship is seen as a proxy for entrepreneurial behaviour. Jyoti, Sharma, and Kumari (2011) researched to investigate the elements that influence women's entrepreneurial motivation and satisfaction. An investigation of the influencing variables and their influence on orientation and pleasure in this respect was made in this study. Data from boutiques, beauty parlors, carpet manufacturing companies, and general stores in Jammu and Kashmir were used to evaluate the suggested model and assumptions (India). 13 pathways were established in SEM to evaluate the cause-effect link between many factors such as social, psychological, financial, push and pull factors, problems, and entrepreneurial orientation and satisfaction. In this structural equation, eight of the 13 routes were relevant, while the other five were inconsequential. The main finding of this study was, all factors have a greater impact on orientation than satisfaction. All in all, environment plays a vital role in the development of entrepreneurial attitudes (EA) of a woman living in any part of the world. This attitude decides the faith of EI among women of these communities and ultimately effects the economy (Jyoti et al., 2011). Taking into account the rural Tunisian women, in agriculture, which is the economic backbone of many Arab countries, "one cannot exaggerate rural women's role in the provision of food, especially for the family and thus also for Arab communities". Furthermore, being the primary supplier of food, their labour load is frequently enormous. They spend a lot of their time cultivating land, caring for livestock, looking after the family, cooking, raising children, and so on; in other words, they frequently work long and hard days for no pay (Khalfallah, 2011). The background of Tunisia had also shown that it is a male dominant society which is oppressive up to some extent for the women. These facts can value the attitude of a rural Tunisian women towards the development of EI. We will analyze the first hypothesis in this concern which is as follows:

H1 = Positive entrepreneurial attitudes will affect positively the entrepreneurial intentions of respondents

Family support for rural women entrepreneurs

The family is at the core of society, with a significant influence in the political, economic, social, and religious sectors. Everyone is acquainted of each other's familial ties, identities, and position. Family relationships enhance access to institutions, jobs, and government services. Gender distinctions are enshrined in the Muslim Holy Book, the Qur'an, as well as in Shari'a, Islamic law. The primary position of a woman in the family is that of a wife and mother. Leung, Mukerjee, and Thurik (2020) investigated the influence of two categories of family support—emotional and instrumental support—in the work-family balance and subjective well-being of SME owners. Using a sample of French SME owners, Leung et al. (2020) found that work-family balance mediates the association between family support and SME owners' subjective well-being. Surprisingly, whereas emotional support had a favourable connection with subjective well-being of SME owners via work-family balance, instrumental support had a negative association. Many employers believe that women's job efficiency will suffer as a result of these positions. Individuals' SN are determined by their perceived social pressure or FS from someone to behave in a certain way, as well as their desire to comply to that people's ideas. McElwee and Al-Riyami (2003) found that a woman living in a Muslim society had a better social and entrepreneurial life with the support of a male family member as compared to a woman with no family support. Rural women tends to go through a very similar process of family support in terms of entrepreneurial approaches. This dependency on one's family leads to subjective norms influenced by the family itself (McElwee & Al-Riyami, 2003). Kumari, Kaushik, and Lodha (2010) studied the problems faced by rural women in Rajasthan province of India. It was performed with 60 rural women in Rajasthan's rural regions, half of them were entrepreneurs and the other half were not. Women's data was gathered using the interview approach. The data on entrepreneurship issues was gathered and analyzed. According to the findings of the survey, a lack of supportive networks (Friends and family), financial, and marketing issues were the primary difficulty areas for rural women entrepreneurs, as well as a key demotivator for other women to start their own businesses. In this case, lack of social/family support was another contributing factor which influence the subjective norms of a person. Young Tunisian women residing in urban areas were found to be dependent on family environment for a successful EI (Moussa & Kerkeni, 2021). This study will examine a hypothesis based on the family support and subjective norms of study respondents which is as follow:

H2 = Family Support of the respondents will have a positive effect on subjective norms

Role of government in women entrepreneurship

Women's entrepreneurship growth is a critical component of a country's economic development. The role of a government in this regard is quite important because it is the primary body with the power to make things happen. They can initiate different programmes to increase entrepreneurial ability potential, expand women's networks, provide finance and training, or design policies to encourage more and stronger start-ups and business development, specifically for women. Almost all MENA (Middle Eastern and North African) countries have stated their commitment to upholding international standards in order to achieve greater development for women, and many are signatories to the Millennium Development Goals. Governments in the area are gradually playing a critical role at the macro level in promoting women's entrepreneurship. In the KSA, the government allows women to obtain a business license without the consent of their spouses (Ahmad, 2011). They also provide legal protection of female investors and customers (Sadi & Al-Ghazali, 2010). Women in the UAE tend to interact with the government in order to access funds because legal reliance on men precludes forming relationships in order to access external funding. Traditional support is generally unavailable to less prosperous women who are unable to provide sufficient collateral (Naser, Mohammed, & Nuseibeh, 2009). The UAE legitimizes female entrepreneurship practices through legislation, educational programmes, and various initiatives aimed at providing women with the resources they need to start their own businesses (Van Horne, Huang, & Al Awad, 2011). In Malaysia, women entrepreneurs are helped in taking use of the different programmes and support services offered by Malaysia's various ministries and government organizations. The number of women entrepreneurs in Malaysia has grown throughout time as a result of the aid and advice funded by the state, business sector, and NGO’s. According to the census report of 2010, women owned 19.7% of the 645,136 active SMEs in operation, up from 16% in 2005 (Teoh & Chong, 2014). In an earlier paper, Maayoufi (2020) addressed the lack of government support for Tunisian women in terms of business registration. Lack of understanding of business procedures was considered to be a barrier. The government made no special effort to counsel women on registration procedures. Furthermore, the various types of company and the advantages of legal liability were not widely recognized by most of the women. With the underlying importance of the role of government in women entrepreneurship, we tried to find the effectiveness of governments interest towards entrepreneurship of women residing in rural Tunisia (Maayoufi, 2020). This led the next hypothesis which is as follows:

H3 = Government Effectiveness will affect positively the entrepreneurial intention of the respondents

Perceived behavioral control and entrepreneurship

Fishbein's TRA has been the most influential theory for understanding and predicting behavior in recent decades (Fishbein, 1979; Fishbein & Ajzen, 1976). The proximal determinant of behavior, according to this theory, is behavioral intention—people do what they intend to do rather than what they intend not to do. In turn, behavioral intention is dictated by attitude and subjective standard, which refer to an assessment of the behavior and a person's opinion of what "most people who are important" to him or her think he or she should do, respectively. However, Ajzen (1991a) believed that the TRA comes with a limitation that is that it only predicts voluntary behavior. An individual may have a strong desire to perform a behavior but fail to do so due to a lack of ability, external constraints, or other factors. Since it is difficult to obtain an objective measure of the extent to which an individual's voluntary influence over a behaviour, Ajzen (1991a) proposed that psychologists use PBC—the extent to which a person feels the behaviour is under his control—as a substitute. When PBC is used as an additional predictor variable in the theory of reasoned action, the prediction of behaviour improves (Armitage & Conner, 1999; Conner & Armitage, 1998; Sheeran & Orbell, 1999; Sheeran & Taylor, 1999). As entrepreneurship is such a deeply ingrained phenomenon, subjective perceptions of one's surroundings and one's relative position within that environment are crucial (Jack & Anderson, 2002). Thus, personal views of a particular society's supportiveness, the business environment, and one's own talents are proven to be connected to entrepreneurial intentions (EI) (Bird, 1988). Ali and Jabeen (2022) Adult Population Survey (APS) of GEM of 2016 and determined the variables influencing individuals in creating start-ups. 26.5% of the 3,400 people polled indicated new start-up activity, and 8.3% revealed start-up ownership. Perceived behavioural control was found to be among the contributing variables having a substantial impact on the establishment of new businesses in the country. The study's findings support the application of planned behaviour theory. A growing body of research suggests that a society's culture influences entrepreneurial behaviour by encouraging some personal qualities or behaviours while punishing others (Zahra, Jennings, & Kuratko, 1999). In other words, the underlying value system represents normative and ability judgments of entrepreneurial action. This will lead to the fourth study hypothesis as follows:

H4 = Perceived Behavioral Control of the respondents, will affect positively their entrepreneurial intention

Risk taking behaviour

"Risk taking is correlated with a willingness to devote more money to projects where the cost of failure can be high" (Wiklund & Shepherd, 2005). Knight (1921) described the situation of risk as a condition in which the probabilities of future outcomes are known to be opposing to the situation of uncertainty. In other words, it is the decision-making skill in a condition in which the probabilities of future outcomes are not known (Knight, 1921). The definition of risk is fundamental to the field of entrepreneurship. Given the risky external environment and high failure rate of new projects, a better understanding of risk could potentially increase the efficiency of entrepreneurial decision-making (Forlani & Mullins, 2000). Another definition of risk was "the likelihood of translating an idea into an opportunity by an entrepreneur" but venture failure can result in financial losses (Keh, Der Foo, & Lim, 2002). However, a significant body of data suggests that entrepreneurial orientation (EO) and, in particular, management risk-taking, may provide a competitive edge and lead to improved performance (Belanes & Hachana, 2009). Women living in rural area are having limited choices of work and a limited boost towards entrepreneurship which hinders their risk-taking behavior. Hassan, Ramli, and Desa (2014) investigated the entrepreneurial characteristics that affect the corporate performance of rural women entrepreneurs, such as risk taking, willingness to discover, confidence and perseverance, desire and initiative, vision, innovation and creativity, social networking, and creative planning. A questionnaire was used for the data collection of 80 rural women entrepreneurs in Peninsular Malaysia's northern area. Partial least square analysis revealed that the major characteristics that impact the business performance of women entrepreneurs in rural settings were confidence, determination, and vision. Apart from this, Ettis and Kefi (2016) examined the role of several factors on the EI of Tunisian students. Risk taking was amongst the studied factors which was found to be significantly correlated with the development of EI among Tunisian students (Ettis & Kefi, 2016). As previous literature supports the ideology of improved EI with an improvement in risk taking behaviour, we looked forward to analyze the same factor among rural Tunisian women. The next developed hypothesis is as follows:

H5 = Risk-taking way of behaving of respondents, will affect positively their entrepreneurial intention

Subjective norms and EI of rural women

Social support involves having friends and other individuals, including relatives, to whom you can turn in times of need or crisis to provide you with a wider perspective and a positive self-

image (Cohen, 2004). Entrepreneurship and management research has shown some insights into how people might reduce their perceived role conflicts. Women entrepreneurs, for example, establish synergies between work and family life, whereas males improve their family support at home to attain pleasure (Eddleston & Powell, 2012). In this regard, it appears as if the support of others is a necessary prerequisite for reducing role conflict. This support is necessary for the development of subjective norms which in turns can affect the process of entrepreneurship of an individual. The higher the purpose, the more supporting the subjective standards. The intention will be higher if the goal behaviour is more appealing to the individual. Krithika and Venkatachalam (2014) studied the effects of subjective norms on the development of EI in Indian society. Findings from 100 participants sample size of the study revealed that subjective norms had a significant effect on the development of EI among respondents. In addition to this, the study also confirmed that social support (family/friends) is a key factor for influencing subjective norms of an individual. Inequity and inequality have negative effects on wellbeing, and loneliness is seen as a compounding factor that can exacerbate the situation (Krithika & Venkatachalam, 2014). A body of evidence is emerging that suggests that social support in private life and social participation in larger social networks improves a person's coping capacity and is beneficial to health (Cattell, 2001; Leipert & Reutter, 2005; Schulz & Lempert, 2004). The importance of social support for the development of subjective norms among women being crafted in earlier literature made it necessary for us to identify the social support present for rural Tunisian women. In Tunisia, there is a continuous imbalance in how family members devote their time on a daily basis; this disparity is most visible in rural regions, but it is also visible in metropolitan areas. Gender norms are strongly established, with males dividing their time between work and recreation while women spend the majority of their time performing housework. According to one research, women's overall daily burden is two hours higher than men's, encompassing unpaid job, family caregiving, and domestic chores, and that "despite their professional status, women always have a heavier workload than males in Tunisian society". This phenomenon determine the lack of subjective norm development due to the lack of social support for rural Tunisian women. We will examine our final hypothesis based on the social support which is as follows:

H6 = Positive subjective norms of the respondents, will have a positive impact on their entrepreneurial intention

3. METHODOLOGY

The technique and research methodology used in this study are provided in this chapter, together with the essential characteristics of the selected research approach and method.

3.1 Research Approach

The research was carried out in phases. The first stage involved doing a literature study on many important themes. The core questions for the questionnaire were derived from the literature study. The statistical model was constructed and tested on a limited number of people in the second stage to check that the quality of the questionnaire was adequate. In the third step, data was collected through interviews. Following that, the questionnaire data was statistically examined.

- **Stage 1**

  Previous research was reviewed to determine which factors influence agricultural entrepreneurship intentions. The topics investigated were the demographic distribution of projects carried out by rural women in Tunisia, as well as the financial, political, and socioeconomic situation of entrepreneurship in Tunisia. The review resulted in the creation of the first draft of the questionnaire's items. On section 3.5, there is an elaboration on the questionnaire.

- **Stage 2**

  The research model was developed based on the literature and the area of investigation. A number of interviews with a smaller sample were conducted to ensure the quality of the questions and that they accurately reflected the constructs. Some changes were made to the questionnaire based on the feedback from these interviews, and it was then finalized.

- **Stage 3**

  The questionnaire was then used in interviews to collect data for the analysis, which was then statistically analyzed.

3.2 Research Approach and Study Design

Research Method

The first decision to make while undertaking a scientific study is whether to utilise a qualitative or quantitative methodology. Interviews or questionnaires with open or semi-structured questions are used to collect data when utilising a qualitative technique. When employing a quantitative technique, data is often collected through interviews or surveys using primary or secondary data (Bhattacherjee, 2012).

Both methodologies have advantages and disadvantages, and the appropriateness of each depends on the topic of inquiry. A mix of the two is conceivable and can be advantageous for studies that do not take place in a laboratory setting, such as agricultural entrepreneurship. In our investigation, we employed a quantitative technique with qualitative features. For quick results, we collected data on both qualitative and quantitative characteristics. To be able to quantify the goal of the study, i.e., attitude to continually succeed in agricultural entrepreneurship, a quantitative approach should be employed to statistically evaluate it and allow for future scaling.

The study relied on original data acquired through a questionnaire. This questionnaire survey is both effective and scalable. Furthermore, structured interviewing was performed to keep the material used in the study secret. The pre-study qualitative data collection was carried out to ensure the quality of the questionnaire. In addition, the questionnaire contained a handful of open-ended follow-up questions to provide the researcher with the respondents' logic and line of thinking.

Deductive and Inductive Research Approach

There are two approaches to researching a phenomenon: deductive research and inductive investigation. Inductive research seeks to derive theoretical notions and patterns from observable facts.

The purpose of deductive research is to evaluate theoretical notions and patterns with fresh empirical evidence. As a result, theory building research and theory-testing research are alternate terminology for inductive and deductive research. Deductive reasoning moves from the general to the particular, whereas inductive reasoning moves from specific facts to wider generalisations and ideas. Figure 3 depicts how the two can be joined to make a continuous

cycle. The Research Theory Cycle The deductive and inductive approaches are frequently employed together (Trochim & Donnelly, 2006).

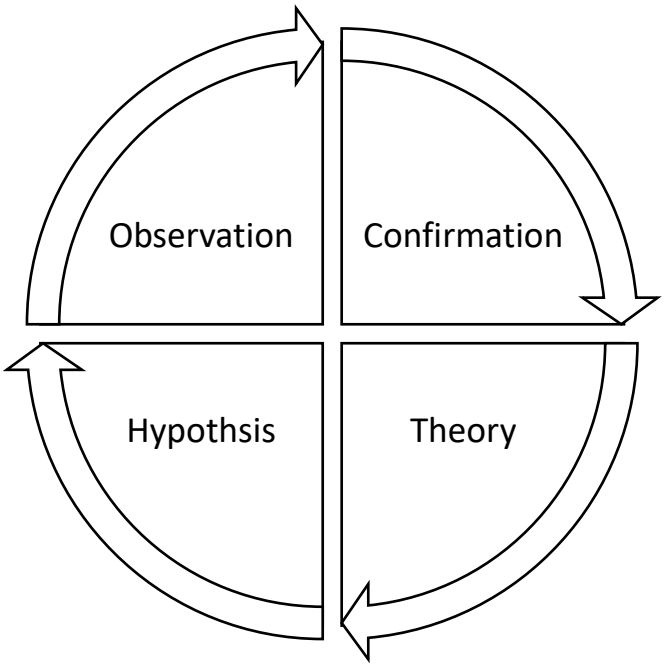

Figure 3: The Cycle of Research Theory (Corbetta, 2003)

This thesis follows a traditional research approach and includes both of the techniques (deductive as well as inductive) in order to establish a theory based on past research and body of literature. Further, hypothesis construction based on semi-structured interviews was performed in our study which was evaluated to yield results of quantitative analysis. The purpose of this strategy is to ensure face validity and reliability by iterating and upgrading the items on a constant basis to reduce misunderstandings and errors.

Study Design

This study was exploratory in nature and based on the research question, a causal study design was used. Various factors were assessed for their effect on the entrepreneurship in rural Tunisian women and these effects were measured. Further, the interlinking of these factors to one another was also studied to strengthen the basis of causality of change in the status of entrepreneurship among the rural Tunisian women.

3.3 Target Population, Sample size and Sample Selection

Target Population

As, this study was focused mainly on females therefore a greater attempt was made to access most of the female population for this study. Based on the selection criteria, these respondents needed to be from the rural Tunisia and must had at least some sort of entrepreneurship activities going on. Although, the original idea involved a major focus on the females of rural area, we collected data from both male and female respondents belonging to urban and rural societies for a better understanding of the factors constraining or promoting entrepreneurship.

Sample Size

For the selection of sample, a specific criterion was set to ensure maximum reliability of the data and greater responsiveness from the population of interest. The sample was required to meet the following screening criteria:

(1) Participants of the study must have an agriculture entrepreneurial background

(2) The participants must be 18 years or older

(3) Participants must be Tunisian nationals

A sample size of 500 was set for this study with the expectancy of attaining statistically sufficient results based on this sample size. A survey was administered to 508 participants. Responses from participants who did not complete the survey or who failed an attention check item were eliminated from the sample, resulting in 500 cases for analysis.

Sample Selection Technique

For the selection of samples, simple random sampling was used which is also known as SRS. Field visits were made to different regions of Tunisia to collect data from random respondents falling within the selection criteria for this study. Apart from this, online questionnaire forms were also used to collect data from random respondents without any referral. For ensuring the validity of sampling technique and data, all of the respondents were informed regarding the purpose of study prior to filling the questionnaire.

Primary Data and Data collection tool

Primary data come directly from the individuals we study and are thus the most direct types of information one can gather. We employed primary data and interview approaches to get

material that had not before been explored. A questionnaire was created for this aim in order to analyse the contribution of rural women entrepreneurs to Tunisia's economic growth.

A questionnaire is a series of printed questions that need replies from respondents and can be self-administered. A set of open-ended and closed-ended questions were used in the research, which consisted of 30 questions divided into two parts, part one consisted of demographic information of rural women entrepreneurs while part two consisted of latent variables and the items associated with these variables. The items used in this study connected to the latent variables which collected the opinion of the respondents (see appendix).

Secondary Data

Various sources of secondary data that were used to collect additional data for the purpose of a more valid and thorough research study. This data was taken from sources such as newspaper, textbooks, published reports, bulletins and other documents which allowed us to obtain information not covered by primary data methods, such as the literature on rural women entrepreneurs used in the literature review.

3.5 Questionnaire and Survey Process

The study used a refining method to examine each question in the survey. Figure 4 shows how the procedure works.

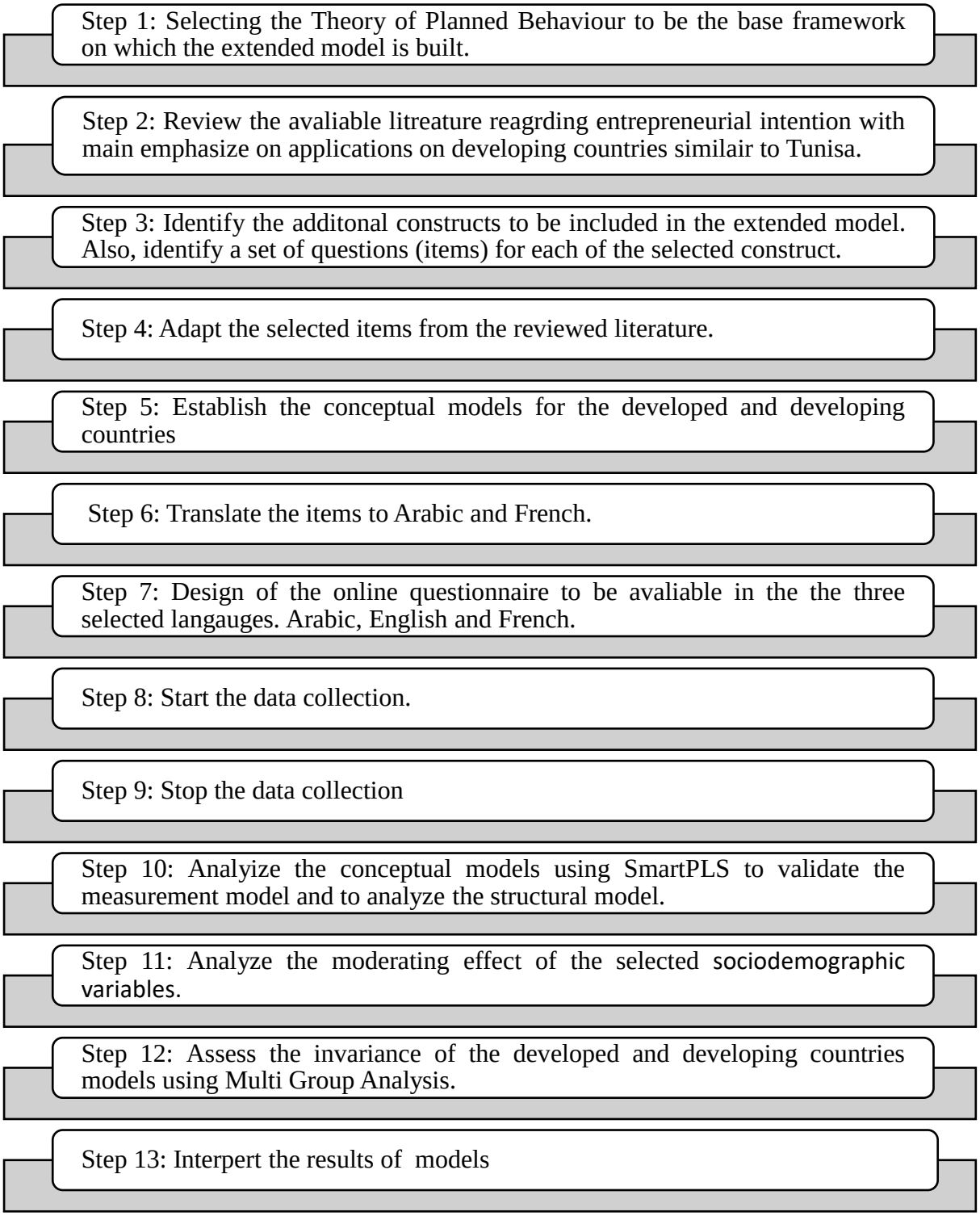

Figure 4: Overview of the refinement of the process of survey (Stockemer, 2019)

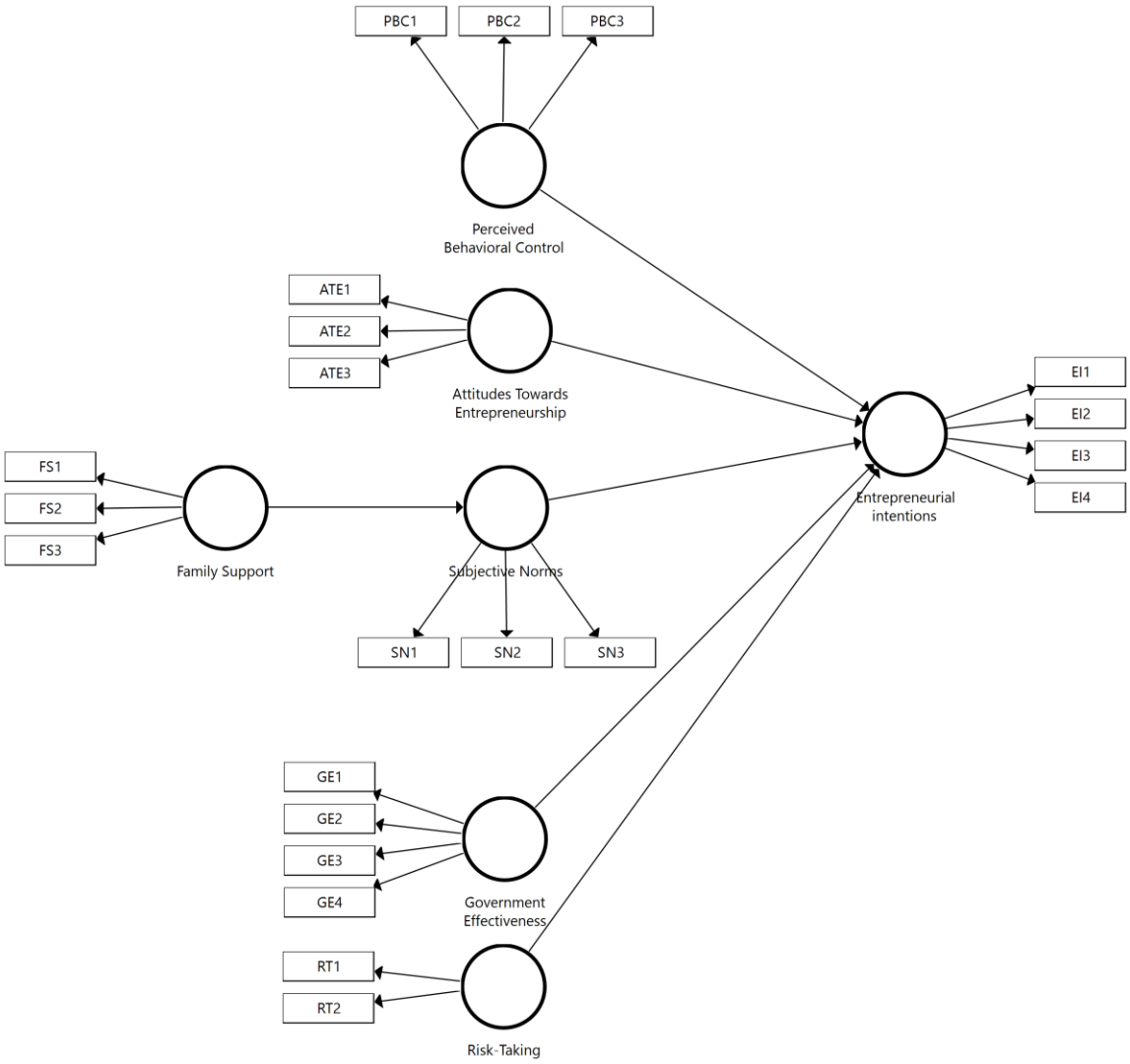

Figure 5: Complete model of study (Source: Own contribution)

Questionnaire Model

Presented below is the model for used questionnaire. Each factor contains certain items which were ranked based on the Likert scale by the study respondents. In addition to this, other parts which collected data on the socio-demographic characters of the respondents were also included in the final data collection.

Table 1: Assessment model used for the questionnaire

n	Factor	Item	Description	References
1	Perceived Behavioral Control	PBC1	I think that starting a firm and keeping it viable would be easy for rural women.	(Karimi et al., 2017)
		PBC2	I believe rural women would be completely able to start their own businesses.	
		PBC3	I think that rural women know all about the practical details needed to start their own businesses.	
2	Attitudes Towards Entrepreneurship	ATE1	I think that the career as an entrepreneur is totally attractive to rural women.	(Karimi et al., 2017)
		ATE2	I think that If rural women had the opportunity and resources, rural women would love to start their own businesses.	
		ATE3	I think that being an entrepreneur would give rural women great satisfaction.	
3	Subjective Norms	SN1	I think that that people close to the rural women believe, hope and encourage the rural women to participate in business.	(MH et al., 2014)
		SN2	I think that that friends of the rural women influence the rural women willingness to start a new business.	
		SN3	I think that that the surroundings of the rural women influence the rural women decision to start a new business.	
4	Risk-Taking	RT1	I think that rural women must take risks at times in order to be successful in my own businesses.	(Gorostiaga et al., 2019)
		RT2	I think that in order to create something of value of their own businesses, rural women need to take risks.	
5	Family Support	FS1	I think that the family members of the rural women will approve their actions	(Shen et al., 2017)
		FS2	I think that the family members of the rural women will encourage them to start their business	
		FS3	I think that family members of the rural women will give them advice to start their own business	
7	Government Effectiveness	GE1	I think that the quality of public services will help the rural women to start or operate their own businesses.	(Maqatari et al., 2020)
		GE2	I think that the quality of policy formulation will help the rural women to start or operate their own businesses.	
		GE3	I think that the quality of policy implementation will help the rural women to start or operate their own businesses.	
		GE4	I think that the credibility of the government's commitment to the public services and policies will help the rural women to start or operate their own businesses.	
8	Entrepreneurial intentions	EI1	I think that rural women professional goal is to become an entrepreneur.	(Karimi et al., 2017)
		EI2	I think that rural women will make every effort to start and run their own businesses.	
		EI3	I think that rural women are determined to create a firm in the future.	
		EI4	I think that rural women have very seriously thought about starting a business.	

Factors = Identified variables from pervious researches; Description = specific questions associated with each of the items

Perceived Behavioral Control

The sense of the difficulty of implementing an action is characterized as PBC. The major distinction between the TPB and TRA is PBC. Indeed, some activities are outside one's volitional control (e.g. getting hired for a job), and Ajzen (1991a) is able to account for a broader range of behaviours more precisely by including PBC into their reasoning. According to Ajzen (2002), PBC is made up of two strongly connected (and associated) variables: perceived self-efficacy and perceived controllability. Taken together, these characteristics constitute perceived behavioural control, which both directly and indirectly predicts behaviour via intentions. Our study included 5 items related to PBC (PBC1-PBC5) presented in table 1, with all of these ranked from a 7-point scale.

Attitude Towards Entrepreneurship

Personality traits may be more essential than accomplishment in the decision to become a founder. An entrepreneurial attitude (EA) is a set of personality attributes that can assist an entrepreneur in growing and succeeding in company. It is the mentality that allows an entrepreneur to successfully develop and maintain a firm. Several studies have found that family, business history, innovativeness, self-efficiency, risk-taking, and independence all impact students' decision to pursue a career as an entrepreneur (Ammal & Mathi, 2014; Shetty, 2004; Tkachev & Kolvereid, 1999). Based on the assumptions and importance of attitude in becoming an entrepreneur, we included 3 items for EA in this study (ATE1-ATE3) which are presented in table 1.

Subjective Norms

Subjective norms are opinions about whether the majority of people favour or disapprove of a particular behaviour. It relates to a person's beliefs about whether his or her peers and influential people in his or her life feel he or she should partake in the behaviour. According to the theory of planned behaviour, behavioural intentions are influenced by attitude toward the conduct, subjective norm, and perceived behavioural control (Ajzen, 2002). Subjective norm relates to perceived social pressure to perform or not execute the behaviour, whereas attitude toward the behaviour refers to how positively or adversely a person judges the target behaviour (Ajzen, 1991a). SN1, SN2 and SN3 were included in this study for assessing subjective norms as a factor of influencing EI among Tunisian individuals.

Risk Taking

Risk taking is a vital component for any activity that does not have a clear end result. As a result, risk taking and entrepreneurship are inextricably linked. The characteristic of risk influences entrepreneurial activity. The notion of taking risks has repeatedly been linked to entrepreneurial conduct. Early definitions of entrepreneurship focused on entrepreneurs' willingness to take calculated business risks (Brockhaus Sr, 1980). Entrepreneurial endeavor toward a new business conception might be dangerous because new firms fail at a high rate (Antoncic, 2003). When starting a new business, entrepreneurs take on many sorts of risk (psychological, social, and financial) (R. Hisrich & Peters, 1998). For this reason, we included 4 items (RT1-RT4) for studying risk taking behavior of the study respondents which are presented in table 1.

Family Support

Family support in context of entrepreneurship can be explained from the social learning theory which states that individuals learns from other in their environment who serve as role models for them (Bandura, 1986). The family's involvement in guiding young people toward selecting an autonomous/entrepreneurial employment becomes increasingly crucial (Odoardi, 2003); the social network is an important intangible resource for the growth of their business activities (Presutti, Boari, & Majocchi, 2011). We included 5 (FS1-FS5) items to study the family support provided to Tunisian individuals both men and women. These items are presented in table 1.

Government Effectiveness

Government is an important contributor in day to day living of the residents of a state. Its involvement is present in almost every matter of a person’s life. The nudge for innovation in hard financial times, massive unemployment, globalisation and dispersed mechanisms of production and service provision, supremacy of technological tools, and the rise of the innovative industrialized economies have all called for government support to foster an entrepreneurial environment through various policies and adequate implementation measures (Karki, 2010; Obaji & Olugu, 2014). Our study included 4 (GE1-GE4) items of government effectiveness to assess the level of support Tunisian population is expecting from the government as well as the importance of this support (Table 1).

Entrepreneurial Intentions

Entrepreneurial intention (EI) is described as "the conscious state of mind that precedes action and focuses attention toward entrepreneurial activities such as launching a new venture and becoming an entrepreneur" (Moriano, Gorgievski, Laguna, Stephan, & Zarafshani, 2012). Intention models, when combined with the indirect effects of person traits, provide a tool for analysing the direct antecedents to firm launches and forecasting the results of intentions since they reflect individuals' longer-term dispositions. Intention models assist in understanding and predicting individuals' intended activities, such as pursuing a tourism enterprise endeavor, as well as explaining how potential entrepreneurs view prospects by studying their intentions and the factors influencing their intentions (Shepherd & Krueger, 2002). A typical example of the intentions model is theory of planned behavior which is used in a wide amount of entrepreneurial research to understand EI. In this study, 4 items (EI1-EI4) were included in the questionnaire related to the EI which assessed the intents towards entrepreneurship among study respondents. An overview of these items is presented in table 1.

Likert Scale

A 6-point Likert Scale ranging from Strongly Disagree to Strongly Agree was used to assess survey respondents' sentiments. The No opinion option is a discrete value that which is why it was not included in the study to avoid data complications. Figure 6 represents data for all of the options. The Likert scale used in the survey.

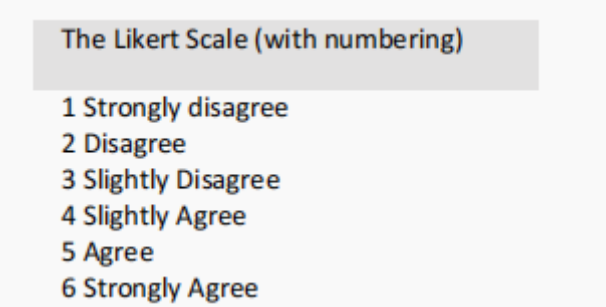

Figure 6: The Likert scale used in the survey

Likert scale items provide for a more nuanced response from respondents than binary ones with neutral responses. An odd number of possibilities is crucial in order to properly portray a fair number of alternatives to the respondent, including a neutral answer option (Bhattacherjee, 2012).

3.6 About the Analysis

The assessment of the measurement models consists of a set of septs illustrated by figure 7.

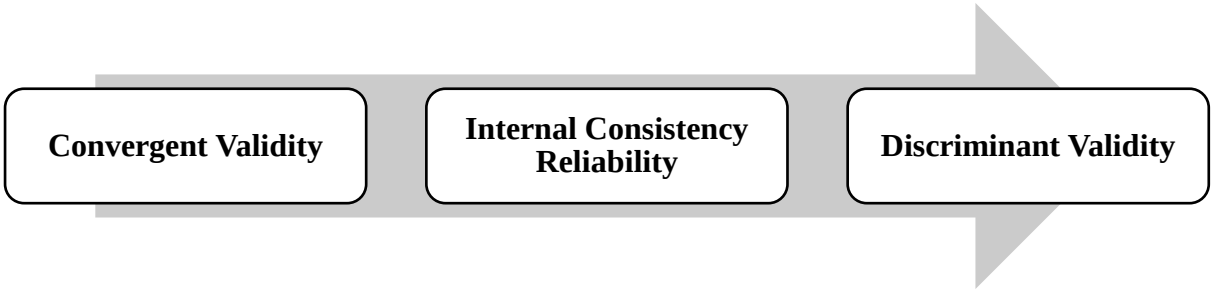

Figure 7: Steps of Assessment of the measurement model (Kimberlin & Winterstein, 2008)

A scale is frequently constructed in order to better compare and comprehend the results of investigations. A scale is a better approach to explain a concept than a single question since it increases validity and reliability. This, on the other hand, will be time consuming and inefficient. A scale may be used to minimize the amount of questions depending on which are most relevant to the construct under consideration.

The degree to which a measure accurately represents what was meant to be measured is referred to as its validity. 2010 (Hair, Black, Babin, Anderson, & Tatham) Validity has two components: systematic error and variable error. A systematic error, also known as bias, is a persistent pattern that occurs during each measurement. A biased question is one that produces the same inaccuracy in the same direction every time the question is asked. When the question is posed, a variable mistake happens at random. A variable error would be an answer that is less positive than the genuine sentiment because of a transient feature.

First and foremost, face validity is the most basic type of validity. It relates to whether or not an object can measure an underlying concept. (Bhattacherjee, 2012) Face validity was established in this study by testing the items on interviewers who were familiar with the application. The factor loadings indicate how much weight each component contributes to each construction. By multiplying the factor loading times the observed variable score, the validity coefficients may be used to assess how much of the observed variable score variation is authentic. Schumacker and Lomax (2016). Standardized loading estimates should be above 0.50 or higher, and ideally 0.70 or higher (Hair, Black, Babin, Anderson, & Tatham, 2010).

The construct measurements' internal consistency reliability is evaluated using Composite Reliability (CR). CR reflected how well the indicators described the structures in the measuring model. W.H. Chin (1998) propose a threshold of 0,7, with results beyond this amount being well represented by the indicators. For two reasons, CR is a better measure of internal consistency reliability than, say, Cronbach's a. First, unlike Cronbach's alpha, CR does not assume that all indicator loadings in the population are equal, which is consistent with the PLS-SEM algorithm's operating concept of prioritizing indicators based on their individual reliabilities during model estimation. Second, Cronbach's alpha is sensitive to the amount of items on the scale and overestimates internal consistency dependability (Hair, Black, Babin, Anderson, & Tatham, 2010).

$$Pc\text{r}=(\sum ili)^2(\text{ii li})^2+\sum var(ei)$$

Convergent validity is a metric used to assess the similarity of two related notions. It describes how two concepts come together. Discriminant validity is the inverse measurement. It relates to how a construct distinguishes itself from other constructions that it is not meant to measure. Convergent and discriminant validity are often tested concurrently for a group of related constructs. (2012) Bhattacherjee The Average Variance Extracted (AVE) is a convergent validity measurement that is calculated as the mean variance extracted from the item loadings on the construct. The formula is:

$$AVE\text{=i=1 n*li}^2\text{n}$$

To deal with unreliable variable measurements and their consequences, double the dependent variable reliability and/or average the independent variable reliabilities (Schumacker & Lomax, 2016). Given the notion of classical reliability, i.e. the fraction of genuine score variation accounted for given the observed scores, this formula provides an intuitive appeal and a truer score. The formula for the equation is:

$$Ry.1232=Ry^2.123 * ryy * r\text{xx}$$

The R2 number is a proportion of the variation in the independent variable groupings that is accounted for by association (Schumacker & Lomax, 2016). The coefficient of determination, or R2 value, is extensively used by researchers to quantify and evaluate structural models (Hair, Hult, Ringle, & Sarstedt, A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), 2014). This coefficient is a measure of the model's prediction performance and is

determined as the squared correlation between the actual and anticipated values of a certain endogenous component.

The formula for calculating is f^2 is:

$$f^2 = \frac{R^2_{inlucded} - R^2_{exlucded}}{1 - R^2_{inlucded}},$$

where $R^2_{inlucded}$ and $R^2_{exlucded}$ are the R^2 values of the endogenous latent variable when a selected exogenous latent variable is included in or excluded from the model (Hair, Black, Babin, & Anderson, 2014).

Prediction Relevance(Q^2)

Q^2 values greater than 0 imply that the external constructions are predictive of the endogenous construct under examination (Hair et al., 2017). The formula is:

$$Q^2 = 1 - \frac{SSE}{SSO}$$

Table 2: Assessment parameters and their critical/threshold values

Assessment	Test Result Interpretation
Estimates for Path Coefficients	The minimum number of bootstrap samples must be at least as large as the number of valid observations but should be 5,000 (Hair et al., 2017). Critical t values for a two-tailed test are 1.65 (significance level 10%), 1.96 (significance level = 5%), and 2.57 (significance level = 1%). examine the p value, which should be lower than 0.10 (significance level = 10%), 0.05 (significance level = 5%), or 0.01 (significance level = 1%)
R^2 of Endogenous Latent Variables	R^2 value of 0.10 is proposed to be as a minimum acceptable level (Falk & Miller, 1992) (Lohmöller, 1989). In general, R^2 values for the endogenous construct can be described as follows to (Hair et al., 2017): 0.75→substantial 0.50→moderate 0.25→weak
Effect Size f^2	According to (Cohen, 1988): f^2 above 0.35 is considered a large effect size. f^2 ranging from 0.15 to 0.35 are medium effect size. f^2 between 0.02 to 0.15 considered a small effect size. f^2 values less than 0.02 are considered with NO effect size.
Prediction Relevance (Q^2)	The resulting Q^2 values larger than 0 indicate that the exogenous constructs have predictive relevance for the endogenous construct under consideration. (Hair et al., 2017)

(Source: Own contribution)

4. RESULTS AND DISCUSSION

This chapter presents the results of analyses conducted using the statistical technique discussed in Chapter 3. Data collected through structured questionnaire was subjected to statistical analysis and findings are presented in this chapter. The questionnaire sectioned data into groups of observations based on the factors of interest of this study. Respondents provided their basic information in socio-demographic section while the responses for the study variables were recorded in a 5-point scale. Microsoft excel was used for the initial data entry and descriptive analysis while for the basic model of the study, Smart PLS 3.0 was used. This chapter follows the widely accepted reporting style of PLS analysis as suggested by previous studies (Chin, 2010). First, the socio-demographics (age and residence) of the respondents are discussed then the validity and reliability of the measurement model is assessed, then structural model is validated. The validity and reliability of the overall model was assessed in the first step followed by assessment of gender and residence-based model validities.

4.1 Socio-Demographics of the Respondents

Data on the socio demographic characteristics of the respondents was collected in the first section of questionnaire and statistical analysis was made to provide an appropriate image of the descriptive of study respondents. Data analysis revealed that the age of respondents ranged from 18 – 65 years while 61.6% of the study population was female. 53 of women and 8 of men had an age between 18-26 years; 126 women and 97 men had an age between 27-33 years; 98 women and 33 men had an age between 34-40 years; 27 women and 38 men had an age between 41-50 years; 4 women and 16 men had an age above 50 years. This data made it clear that most of the women were of younger age group.

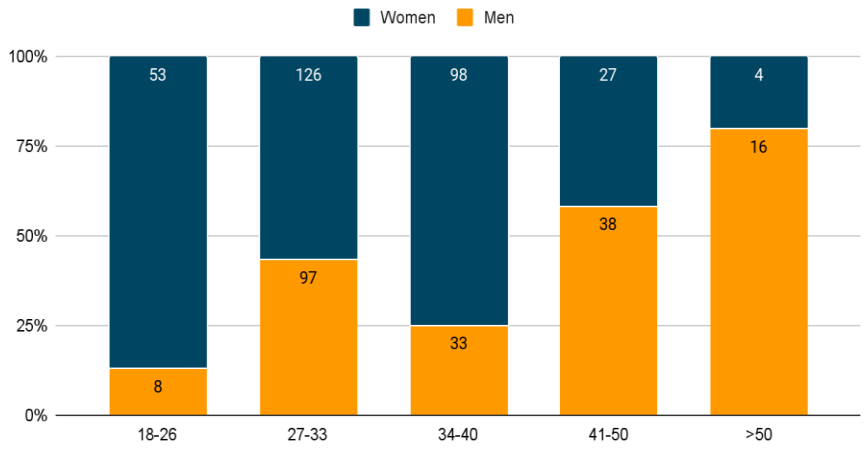

Figure 8: Age and Gender distribution of the participants size (Source: Own contribution)

Figure 8 illustrates the age and gender characteristics of the respondents. The figure 9 reveals that the majority of the sample is relatively mid-aged as the respondents who are over 50 years old were only about 4% of the total Participants size. Among the total respondents, only a minority have reported their gender as "Other," with 1 and 2 from the Men and women gender, respectively. A greater proportion of the study respondents were found to be females with most of them aging between 27-33 years.

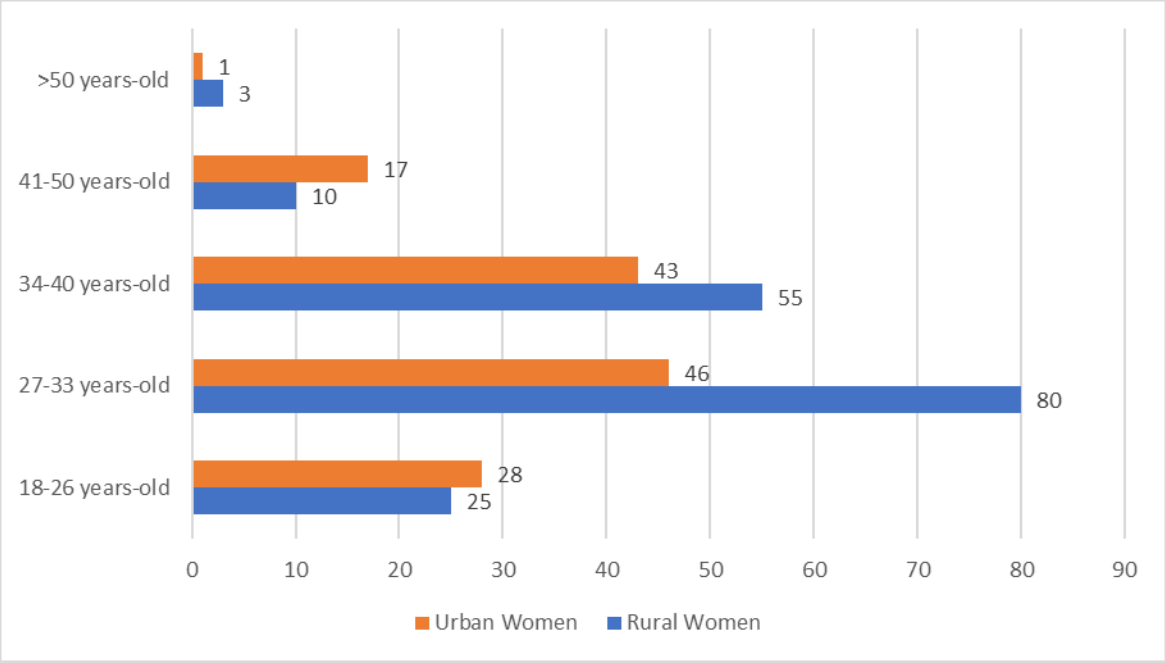

Figure 9: Residence based demographic partition of the participants (Source: Own contribution)

Figure 9 represents that partition levels for the two groups for residence were similar; however, Rural women were relatively highly represented in one group compared to the other. Age groups 18-26 years, 27-33 years and 34-40 years old showed that most of the respondents in these age groups were from the rural societies of Tunisia while participants aging 41 years and above were mostly from the urban areas. On the contrary, mid-age women in rural areas were more represented than others.

4.2 Overall Validated Measurement Model

In this step the model validation was performed on different angles to evaluate the data for the hypothesis assessment. Validation of the data through convergent validity was performed using factor loadings and average variance extracted (AVE) scores. Under normal circumstances, the recommend factor loading is 0.7 or above however, the item can be considered for dropping if

its dropping result an increase in the composite reliability around the suggested values. This dropping can only be done if the factor loading is in between 0.4 to 0.7 (Hair et al., 2014). Additionally, the AVE values of all the constructs should be 0.5 or higher because it is the recommended threshold for AVE scores. The same goes for CR scores; CR should be equal to or greater than 0.7 for proving the data to be reliable. As, convergent validity and discriminant validity goes side by side in research studies, we performed the same operations here. For discriminate validity of the construct, two techniques were used namely Cross Loading and Fornell-Larcker criterion (Fornell & Larcker, 1981) which proposes that when compared to its correlations with other constructs, the square root of AVE for each construct should be greater.

In this section, the overall data is analyzed for validated measurement and results are presented. Results will follow the pre described pattern starting from convergent validity, followed by discriminative validity.

Table 3: Convergent validity of the overall data

Construct	Items	Factor Loadings	CR	AVE
Perceived Behavioral Control	PBC1	0.839	0.821	0.606
	PBC2	0.737		
	PBC3	0.755		
Attitudes Towards Entrepreneurship	ATE1	0.768	0.799	0.571
	ATE2	0.707		
	ATE3	0.789		
Subjective Norms	SN1	0.885	0.772	0.632
	SN2	-		
	SN3	0.692		
Risk-Taking	RT1	0.718	0.744	0.593
	RT2	0.819		
Family Support	FS1	0.692	0.806	0.583
	FS2	0.862		
	FS3	0.727		
Entrepreneurial Intentions	EE1	0.798	0.858	0.603
	EE2	0.776		
	EE3	0.809		
	EE4	0.719		
Government Effectiveness	GE1	0.612	0.824	0.542
	GE2	0.801		
	GE3	0.748		
	GE4	0.767		

Table contains Factor loadings, composite reliability (CR) and convergent validity (by Average Variance Extracted) for the study. (Source: Own contribution)

Based on the efficient steps regarding measurement model validation described in section 4.2, it can be seen that a number of items had a lower factor loading than 0.7. The removal of such an item was made only if deletion leads to an increase in composite reliability and AVE above the suggested threshold value. In table 3, the loading for the item SN-2, was replaced with "-" due to their effect on CR and AVE. Sufficient loadings were previously mentioned when the formulas were introduced in chapter 3.6. It should be noted that several of the elements in table 3 (marked with an Asterisk) do not have a loading greater than 0.7, which is the preferred level, indicating a sufficient loading according to the formula. The CR values for all of the items were found to be above the required threshold with entrepreneurial intentions resulting in the maximum CR (0.85) while risk taking resulting in the minimum CR (0.74) value. The AVE values for all of the items were found to be above 0.5. These results demonstrate the validity of the data based on the convergent validity.

Further the analysis of discriminant validity was made through the Fornell-Larcher Criterion and cross loadings.

Table 4: Discriminate validity of overall data

	Attitudes Towards Entrepreneurship	Entrepreneurial Intentions	Family Support	Government Effectiveness	Perceived Behavioral Control	Risk-Taking	Subjective Norms
Attitudes Towards Entrepreneurship	**0.755**						
Entrepreneurial Intentions	0.573	**0.776**					
Family Support	0.405	0.489	**0.764**				
Government Effectiveness	0.196	0.284	0.225	**0.736**			
Perceived Behavioral Control	0.326	0.331	0.287	0.257	**0.778**		
Risk-Taking	0.483	0.556	0.268	0.111	0.287	**0.77**	
Subjective Norms	0.321	0.468	0.279	0.176	0.236	0.539	**0.795**

(Source: Own contribution)

Table 4 shows the values for discriminant validity based on the Fornell-Larcher criterion. Data presented in table 4 shows that that the square root of AVE for ATE, EI, FS, GE, PBC, RT and SN is greater than the correlation shared between the construct and other constructs in the model, which indicates the validity of the constructs. ATE had a highest value of 0.755, EI was 0.77, FS was 0.76, GE was 0.73, PBC was 0.778, RT was 0.77 and SN was 0.79. Each of these

values loaded onto the own construct of the said variables while there were lower values on different variables constructs for every single one of them.

Table 5: Discriminant validity cross loading of the overall data

Item	**Attitudes Towards Entrepreneurship**	**Entrepreneurial Intentions**	**Family Support**	**Government Effectiveness**	**Perceived Behavioral Control**	**Risk-Taking**	**Subjective Norms**
ATE1	**0,768**	0,452	0,386	0,175	0,219	0,437	0,227
ATE2	**0,706**	0,391	0,243	0,054	0,216	0,333	0,329
ATE3	**0,789**	0,453	0,264	0,203	0,301	0,322	0,22
EI1	0,416	**0,798**	0,313	0,164	0,263	0,458	0,374
EI2	0,516	**0,776**	0,398	0,193	0,287	0,411	0,343
EI3	0,511	**0,811**	0,541	0,176	0,308	0,494	0,344
EI4	0,316	**0,717**	0,237	0,372	0,156	0,354	0,385
FS1	0,329	0,291	**0,644**	0,012	0,164	0,144	0,191
FS2	0,383	0,511	**0,881**	0,281	0,244	0,283	0,291
FS3	0,145	0,251	**0,755**	0,216	0,271	0,153	0,154
GE1	-0,044	0,126	0,134	**0,612**	0,172	-0,015	0,098
GE2	0,223	0,247	0,197	**0,802**	0,351	0,083	0,186
GE3	0,263	0,233	0,27	**0,749**	0,207	0,117	0,265
GE4	0,037	0,198	0,07	**0,767**	-0,01	0,107	0,172
PBC1	0,282	0,279	0,244	0,201	**0,839**	0,229	0,24
PBC2	0,332	0,273	0,206	0,105	**0,737**	0,31	0,248
PBC3	0,118	0,214	0,229	0,322	**0,755**	0,106	0,288
RT1	0,433	0,385	0,312	0,172	0,428	**0,718**	0,306
RT2	0,324	0,467	0,122	0,015	0,052	**0,819**	0,466
SN1	0,315	0,415	0,303	0,123	0,156	0,499	**0,842**
SN3	0,175	0,323	0,099	0,171	0,245	0,34	**0,717**

(Source: Own contribution)

In table 5 all of the items pose a strong effect/loading on their required construct confirming the validity of the model. Table 5 further revealed that the bolded items represent the factor loadings for each construct and the cross-loading for each construct is very low indicating good discriminant validity. According to Gefen and Straub (2005), “discriminant validity is shown when each measurement item correlates weakly with another construct except for the ones to which it is theoretically associated”. Based on the observations presented in this section, it is clarified that the measurement model for the overall data is validated successfully. These

validations are reported based on the findings of convergent validity values and discriminant validity values.

4.3 Overall Structured Model

This section represented the overall structured analysis of the assessed variables. Previously, section 3.6 showed the different set of assessments that are used in this study for analysis of the structural model and testing of the hypothesis. Below are all values and calculated measurements related to the structure model presented. The structure model for overall data tested each of the hypotheses on overall basis without making classes or divisions in the data. This was done to avail an outline of the collected research data and to devise an appropriate strategy based on the objectives of this study.

Table 6: Relationship assessment of the overall data

Relationship	Std. Beta	Std. Error	T-value	P-Value
Attitudes Towards Entrepreneurship -> Entrepreneurial Intentions	0.341	0.044	7.737	0.00***
Family Support -> Subjective Norms	0.279	0.040	6.920	0.00***
Government Effectiveness -> Entrepreneurial Intentions	0.139	0.032	4.303	0.00***
Perceived Behavioral Control -> Entrepreneurial Intentions	0.068	0.035	1.911	0.056^{NS}
Risk-Taking -> Entrepreneurial Intentions	0.261	0.041	6.403	0.00***
Subjective Norms -> Entrepreneurial Intentions	0.177	0.045	3.963	0.00***

Significance level: *p<0.10, **p<0.05, ***p<0.01, NS = non-significant. (Source: Own contribution)

The path coefficients for the overall study model are presented in the above table (Table 6) along with corresponding confidence level. Based on the reference calculated measurements (Table 6) it was observed that H1, H2, H3, H5 and H6 were having a T-value above 1.96 (critical value at 5% CI) which showed their significant effect. This effect was confirmed by the p-value scores which remained below 0.05 for all of these hypotheses. Only H4 had a t-value lower than 1.96 and a p-value higher than 0.05. Individuals T-value scores were found to be 7.37 for H1, 6.92 for H2, 4.30 for H3, 1.91 for H4, 6.40 for H5 and 3.96 for H6. Each of these individuals values for T-statistics confirmed the significance or non-significance of the tested hypothesis. Similarly, a p-value below 0.05 defined the significant association between two variables while a value above 0.05 indicated the non-significant association between two variables.

Hypotheses Testing

Path coefficients between latent variables are evaluated to test the suggested hypotheses and the structural model. To account for a specific influence within the model, a route coefficient value of at least 0.1 is required (Hair et al., 2011; Wetzels et al., 2009). Five of the six hypotheses are validated by the route coefficients in this model (Table 6). Supported hypotheses are statistically significant at the 0.05 level, have signs pointing in the predicted directions, and have a route coefficient value (β) ranging from 0.17 to 0.50.

Based on table 6 the following hypothesis are supported for EI:

Attitudes Towards Entrepreneurship was positively related to Entrepreneurial Intentions (ß =0,341; p <.001), supporting H1.

Government effectiveness was also found to be positively related to Entrepreneurial Intentions (ß = 0.13; p <.001)

Also, Risk-Taking was positively related to Entrepreneurial Intentions (ß = 0.26; p <.001), supporting H5.

In support of H2, Family Support positively influenced Subjective Norms (ß = 0.27; p <.001) which in terms were positively related to Entrepreneurial Intentions (ß =0.21; p <.001). Table 7 summarize the results for supported hypothesis

Table 7: Results for supported hypothesis from overall data

Hypothesis	Statement	Results
H1	The higher the Attitudes Towards Entrepreneurship, the higher the Entrepreneurial Intentions	Supported***
H2	The higher the Family Support, the greater the Subjective Norms	Supported***
H3	The higher the Government Effectiveness, the greater the Entrepreneurial Intentions	Supported***
H4	Perceived Behavioral Control will have a positive relationship with Entrepreneurial Intentions	Not supported ^{NS}
H5	The more Risk-Taking, the higher Entrepreneurial Intentions	Supported***
H6	Subjective Norms will have a positive relationship with Entrepreneurial Intentions	Supported***

Significance level: *p<0.10, **p<0.05, ***p<0.01, NS = not significant (Source: Own contribution)

Further, the effect sizes for all of the hypothesis were calculated using f^2 values. Results for effect sizes are presented in table 8. The study of each of the effect size is important in understanding the extent of individual effects of each factors. A greater effect shows a stronger association between the two individual factors while a weak effect defines a weak association. A clearer presentation of these effects involved in each individual hypothesis is made in successive table 8.

Table 8: Measurement of effect size (f^2) of the hypothesis tested for overall data

Construct	Effect Size f^2	Classification
Attitudes Towards Entrepreneurship	0.162	Medium effect size
Government Effectiveness	0.034	Small effect size
Perceived Behavioral Control	0.007	No effect size
Risk-Taking	0.078	Small effect size
Subjective Norms	0.042	Small effect size

Effect size measured by f^2 (Source: Own contribution)

The extent or intensity of the association between the latent variables is measured by effect size. Such debate is significant because effect size allows researchers to evaluate the overall value of a research endeavour. According to Chin, Marcolin, and Newsted (1996), researchers should not only state whether a link between variables is statistically significant or not, but also provide the effect size between such variables. The current model's effect size (f^2) varied for different hypothesis with only 1 showing medium effect size (table 8). Majority of the effect sizes were small (4 out of 6). Based on the f^2 value, H4 showed no effect size which was also found to be non-significant as shown in table 8.

Table 9: Predictive relevance of the overall data

Construct	SSO	SSE	Q^2 (=1-SSE/SSO)
Entrepreneurial Intentions	2000	1431.316	0.284
Subjective Norms	1000	958.425	0.042

SSO equals to the number of observations*indicators, SSE is the prediction error using the model prediction. (Source: Own contribution)

As a predictive relevance value above 0 is considered to be good, the predictive relevance Q^2 results show that values are considerably above zero, thus supporting the reputation model's predictive relevance for the five of the constructs. Data on predictive relevance for the overall model can be observed in table 9.

4.4 Validated and Structural Models for Men and Women

After the overall analysis of data, a sort of subdivision was performed to divide data into groups and perform the PLS analysis. The first division was the gender based division of data.

Men Validated Measurement Model

In the following section, the results of the validated measurement model are presented for male respondents of the study using the pre-described steps. Firstly, the convergent validity and internal consistency of the constructs are studied and then the assessment of discriminative validity is made.

Table 10: Convergent validity and internal consistency of men based model

Constructs	Items	F. L	CR	AVE
Perceived Behavioral Control	PBC1	0.843	0.797	0.57
	PBC2	0.644		
	PBC3	0.765		
Attitudes Towards Entrepreneurship	ATE1	0.749	0.792	0.56
	ATE2	0.709		
	ATE3	0.786		
Subjective Norms	SN1	0.845	0.742	0.592
	SN2	-		
	SN3	0.686		
Risk-Taking	RT1	0.778	0.713	0.554
	RT2	0.71		
Family Support	FS1	0.809	0.802	0.577
	FS2	0.815		
	FS3	0.643		
Entrepreneurial Intentions	EI1	0.766	0.845	0.576
	EI2	0.77		
	EI3	0.792		
	EI4	0.706		
Government Effectiveness	GE1	0.712	0.818	0.53
	GE2	0.779		
	GE3	0.681		
	GE4	0.737		

Note: F.L (Factor loadings); CR (Composite Reliability); AVE (Average Variance Extracted) (Source: Own contribution)

Following the measurement model validation steps, it can be seen in table 10 that on SN2 had a lower loading then 0.7 which was dropped due to its effect on CR or AVE. Apart from this, there aren't any items with loading lower than the recommended values of 0.7 which should be dropped only if their dropping cannot achieve composite reliability (CR) of 0.7 or higher

for each construct. Since this is not the case at all, thus all these items remained in the validated model. The average variance extracted (AVE) values of all the constructs ranged from a minimum of 0.53 for Government Effectiveness and a maximum of 0.592 for Subjective Norms. In addition, all the composite reliability of all constructs has values greater than the threshold of 0.7. Therefore, the criteria for the convergent validity and internal consistency reliability for the validation are met.

Proceeding further, the successful validation of data with convergent validity leads to the 2nd type of validation which is discriminant validity. Discriminant validity assessment of the men's model was made and results were tabulated. Following table 11 reveals the information on discriminant validity of men based model.

Table 11: Discriminant validity of men based model

	Attitudes Towards Entrepreneurship	**Entrepreneurial Intentions**	**Family Support**	**Government Effectiveness**	**Perceived Behavioral Control**	**Risk-Taking**	**Subjective Norms**
Attitudes Towards Entrepreneurship	**0.748**						
Entrepreneurial Intentions	0.493	**0.759**					
Family Support	0.411	0.547	**0.76**				
Government Effectiveness	0.157	0.278	0.206	**0.728**			
Perceived Behavioral Control	0.339	0.27	0.268	0.27	**0.755**		
Risk-Taking	0.425	0.567	0.297	0.086	0.282	**0.745**	
Subjective Norms	0.334	0.515	0.312	0.107	0.213	0.536	**0.77**

(Source: Own contribution)

The Fornell-Larcker criterion was used for checking the discriminant validity of data presented by men based model. The diagonal values in table 11 are higher which are the square root of (AVE) than the correlation of that particular construct with the others. The highest recorded value for each of the variable were ATE = 0.74, EI = 0.75, FS = 0.76, GE = 0.72, PBC = 0.75, RT = 0.74 and SN = 0.77. Each of these values loaded onto the own construct of the said variables while there were lower values on different variables constructs for every single one of them. Each of these values loaded onto the own construct of the said variables while there were lower values on different variables constructs for every single one of them. The results confirmed that the items load more strongly on their constructs in the model, thus confirming the discriminative validity which can help us concluding the validity of men based model. Above analysis presented in table 10 and 11 confirms the validity of the data presented in men based model.

Men Structural Model

In this section, the results of the assessment of the structural models are presented. This assessment was made after a successful validation of the men based model data. The structural model included the standard beta, standard error, T-statistics and significance value (p-value). The following (table 12) presents the set of assessments that have been used for the structural models.

Table 12: Men structural model results

Relationship	Std. Beta	Std. Error	T-value	P-Value
Attitudes Towards Entrepreneurship -> Entrepreneurial Intentions	0.250	0.252	3.653	0.00***
Family Support -> Subjective Norms	0.312	0.329	4.617	0.00***
Government Effectiveness -> Entrepreneurial Intentions	0.188	0.192	3.547	0.00***
Perceived Behavioral Control -> Entrepreneurial Intentions	-0.007	-0.005	0.121	0.90^{NS}
Risk-Taking -> Entrepreneurial Intentions	0.316	0.318	4.598	0.00***
Subjective Norms -> Entrepreneurial Intentions	0.244	0.243	3.511	0.00***

(Source: Own contribution)

Results for structural model in men's assessment data showed that all of the hypothesis were having a T-value above 1.96 (Critical value at 0.05 or 5% CI) except H4 which means that each of the hypothesis posed a significant association against the tested dependent variable except the 4^{th} hypothesis. Further confirmation of these results is made by the p value scores which

remained below 0.05 for all the hypothesis. However, the effect remained highly significant in H1, H2, H3, H5 and H6 which the p value remained lower than 0.01 while in H4 the results were non-significant with a p value above 0.05.

Female Validated Measurement Model

The following section describes the results of the validated measurement model based on collected data on female gender using the pre-described steps. Following a convenient style of this dissertation, the first part discusses the convergent validity and internal consistency of the constructs and then presents the results of the assessment of the discriminative validity.

Table 13: Convergent validity and internal consistency of women based model

Constructs	Items	F. L	CR	AVE
Perceived Behavioral Control	PBC1	0.841	0.834	0.627
	PBC2	0.783		
	PBC3	0.751		
Attitudes Towards Entrepreneurship	ATE1	0.778	0.804	0.578
	ATE2	0.709		
	ATE3	0.790		
Subjective Norms	SN1	0.907	0.791	0.658
	SN2	-		
	SN3	0.703		
Risk-Taking	RT1	0.683	0.759	0.615
	RT2	0.874		
Family Support	FS1	0.595	0.802	0.58
	FS2	0.888		
	FS3	0.773		
Entrepreneurial Intentions	EI1	0.820	0.867	0.621
	EI2	0.782		
	EI3	0.821		
	EI4	0.727		
Government Effectiveness	GE1	0.553	0.824	0.544
	GE2	0.811		
	GE3	0.781		
	GE4	0.778		

Note: F.L (Factor loadings); CR (Composite Reliability); AVE (Average Variance Extracted) (Source: Own contribution)

Results presented in table 13 provides details on the convergent validity and internal consistency of the women based model. Following the measurement model validation steps, it can be seen that there aren't any items with loading lower than the recommended values of 0.7 except SN2 which should was dropped for achieving composite reliability (CR) of 0.7 or higher. The average variance extracted (AVE) values of all the constructs ranged from a minimum of 0.544 for Government Effectiveness and a maximum of 0.658 for Subjective Norms. In addition, all the composite reliability of all constructs had values greater than the threshold of 0.7. Therefore, the criteria for the convergent validity and internal consistency reliability for the validation are met. After successful validation of convergent validity and internal consistency, the next step assessed the discriminant validity the results of which are presented in table 14.

Table 14: Discriminant validity of women based model

	Attitudes Towards Entrepreneurship	**Entrepreneurial Intentions**	**Family Support**	**Government Effectiveness**	**Perceived Behavioral Control**	**Risk-Taking**	**Subjective Norms**
Attitudes Towards Entrepreneurship	**0.762**						
Entrepreneurial Intentions	0.629	**0.788**					
Family Support	0.39	0.447	**0.762**				
Government Effectiveness	0.232	0.295	0.244	**0.738**			
Perceived Behavioral Control	0.334	0.38	0.295	0.232	**0.792**		
Risk-Taking	0.517	0.567	0.271	0.137	0.27	**0.784**	
Subjective Norms	0.321	0.443	0.274	0.217	0.249	0.558	**0.811**

(Source: Own contribution)

The diagonal values in table 14 are higher for their own construct as compared to the other constructs. Using Fornell-Larcker criterion the results show that the items load more strongly on their constructs in the model, thus confirming the discriminant validity.

Above arguments presented in table 13 and 14 confirms that the women based model fulfills the criterion for convergent validity, internal consistency and discriminant validity. Because of which, it can be concluded that the measurement model of the based on the data collected from the female respondents has successfully been validated.

Female Structural Model

The successful confirmation of the validity of the model led to the next analysis which was the structural model assessment for female based data. This section presents the results of the assessment of the structural model based on female data. The following table presents the set of assessments that have been used for the structural models.

Table 15: Women structural model results

Relationship	Std. Beta	Std. Error	T-value	P-Value
Attitudes Towards Entrepreneurship -> Entrepreneurial Intentions	0.394	0.395	6.522	0.00***
Family Support -> Subjective Norms	0.274	0.285	5.698	0.00***
Government Effectiveness -> Entrepreneurial Intentions	0.115	0.116	2.925	0.003***
Perceived Behavioral Control -> Entrepreneurial Intentions	0.125	0.124	2.863	0.004***
Risk-Taking -> Entrepreneurial Intentions	0.244	0.247	4.436	0.00***
Subjective Norms -> Entrepreneurial Intentions	0.125	0.124	2.192	0.028**

(Source: Own contribution)

According to the results presented in table 15, all of the variable's testes showed a T value of greater than 1.96 which is the critical value at 5% CI. Therefore, all of the tested hypothesis showed a significant association between the test variable and the dependent variable. Similar finding were observed from the p value scores all of the hypothesis with H1, H2, H3, H4 and H5 showing a p value score below then 0.01. while, H6 showed a p value below then 0.05. This suggests that the effect for the first five hypothesis (H1-H5) is highly significant while the result for H6 is significant.

4.5 Validated and Structural Models for Rural and Urban Areas

The next categorization of data was made based on the residence of the respondents. A categorization into rural and urban areas was made based on the collected data. Assessment of validated and structural models were made for each.

Rural area Validated Measurement Model

Following the traditional structure, the assessment of validated model was made for data based on rural areas. The integrity of data was confirmed using convergent validity and internal consistency followed by discriminant validity. Table 16 state the results for convergent validity and internal consistency of the model.

Table 16: Convergent validity and internal consistency of rural model

Constructs	**Items**	**F.L**	**CR**	AVE
Perceived Behavioral Control	PBC1	0.879	0.849	0.653
	PBC2	0.825		
	PBC3	0.712		
Attitudes Towards Entrepreneurship	ATE1	0.737	0.809	0.586
	ATE2	0.734		
	ATE3	0.821		
Subjective Norms	SN1	0.903	0.722	0.577
	SN2	-		
	SN3	0.581		
Risk-Taking	RT1	0.714	0.727	0.571
	RT2	0.795		
Family Support	FS1	0.669	0.821	0.608
	FS2	0.894		
	FS3	0.76		
Entrepreneurial Intentions	EI1	0.805	0.864	0.615
	EI2	0.814		
	EI3	0.813		
	EI4	0.698		
Government Effectiveness	GE1	0.473	0.81	0.529
	GE2	0.858		

		GE3	0.873				
		GE4	0.629				

Note: F.L (Factor loadings); CR (Composite Reliability); AVE (Average Variance Extracted) (Source: Own contribution)

Evident from the table 16, it can be observed that the factor loadings for the variables are above the recommended values of 0.7 except SN2. Apart from this, SN2 affected the value of CR and AVE which led to its removal because of the default criteria. All of the remaining items in this model remains validated. The average variance extracted (AVE) values of all the constructs ranged from a minimum of 0.529 for Government Effectiveness and a maximum of 0.653 for Perceived Behavioral Control. Recorded values for CR remained above the threshold value (0.7) for all of the constructs. These results provide the insight that rural model meets the criteria for convergent validity and internal consistency.

The successful validation of the rural model with convergent validity and internal consistency led to the next examination of the data which is the discriminant validity. Analysis results for discriminant validity of rural model are provided in table 17.

Table 17: Discriminant validity of rural model

	Attitudes Towards Entrepreneurship	**Entrepreneurial Intentions**	**Family Support**	**Government Effectiveness**	**Perceived Behavioral Control**	**Risk-Taking**	**Subjective Norms**
Attitudes Towards Entrepreneurship	**0.765**						
Entrepreneurial Intentions	0.621	**0.784**					
Family Support	0.454	0.475	**0.78**				
Government Effectiveness	0.213	0.302	0.253	**0.727**			
Perceived Behavioral Control	0.379	0.404	0.353	0.239	**0.808**		
Risk-Taking	0.552	0.661	0.334	0.034	0.378	**0.756**	
Subjective Norms	0.353	0.511	0.280	0.175	0.304	0.567	**0.759**

(Source: Own contribution)

Analysis of the data on the discriminant validity showed that the square root of AVE or diagonal values are higher to their own construct as compared to the constructs on other variables. The results show that the items load more strongly on their constructs in the model, thus confirming the discriminative validity by the Fornell-Larcker criterion. These findings and the findings from table 16 provides a clear picture that the measurement model for data collected on rural respondents is valid.

Rural Area Structural Model

As the data validation for rural areas is confirmed, this section assessed the structural model for the data collected on rural respondents. The results of the assessment of the structural models for rural areas are presented in table 18.

Table 18: Rural areas structural model results

Relationship	Std. Beta	Std. Error	T-value	P-Value
Attitudes Towards Entrepreneurship -> Entrepreneurial Intentions	0.293	0.292	4.003	0.00***
Family Support -> Subjective Norms	0.281	0.296	4.296	0.00***
Government Effectiveness -> Entrepreneurial Intentions	0.189	0.188	4.081	0.00***
Perceived Behavioral Control -> Entrepreneurial Intentions	0.058	0.059	1.296	0.195^{NS}
Risk-Taking -> Entrepreneurial Intentions	0.394	0.398	6.698	0.00***
Subjective Norms -> Entrepreneurial Intentions	0.133	0.131	2.602	0.009***

(Source: Own contribution)

Analysis of the data for structural model of rural respondents revealed that H1, H2, H3, H5, H6 were having a critical value above 1.96 for T-statistics. This behaviour confirmed that these hypotheses had a significant association between the targeted factor and dependent variable. This finding was confirmed the probability value for each of these hypotheses which was <0.01 for all of these indicating a highly significant association. H4 (Perceived behavioural control effects entrepreneurial intentions) was the only hypothesis which was found to be non-significant both on the T-statistics value (<1.96 at 5% CI) and p-value (>0.05 at 5% CI).

Urban Area Validated Measurement Model

The assessment of rural areas validation and hypothesis testing was followed by the similar procedure for the urban areas. This section describes the results of validation model for the data collected from the urban respondents. A similar format of analysis which starts with convergent

validity and internal consistency followed by discriminant validity is followed for this analysis. table 19 presents the data analysis for urban model.

Table 19: Convergent validity and internal consistency of urban model

Constructs	Items	F. L	CR	AVE
Perceived Behavioral Control	PBC1	0.793	0.792	0.561
	PBC2	0.639		
	PBC3	0.804		
Attitudes Towards Entrepreneurship	ATE1	0.797	0.795	0.565
	ATE2	0.697		
	ATE3	0.757		
Subjective Norms	SN1	0.873	0.806	0.676
	SN2	-		
	SN3	0.767		
Risk-Taking	RT1	0.712	0.762	0.618
	RT2	0.853		
Family Support	FS1	0.712	0.792	0.561
	FS2	0.832		
	FS3	0.695		
Entrepreneurial Intentions	EI1	0.792	0.854	0.594
	EI2	0.752		
	EI3	0.803		
	EI4	0.736		
Government Effectiveness	GE1	0.688	0.816	0.529
	GE2	0.748		
	GE3	0.612		
	GE4	0.841		

Note: F.L (Factor loadings); CR (Composite Reliability); AVE (Average Variance Extracted) (Source: Own contribution)

Following the measurement model validation steps, it can be seen that only SN2 was removed from the table. This removal was done because SN2 possessed a value lower then 0.7 and it was affecting the score of CR which fulfilled the criteria of removal; items with loading lower than the recommended values of 0.7 should be dropped only if their dropping can achieve composite reliability (CR) of 0.7 or higher for each construct. All the values for AVE were found to be above 0.5. The average variance extracted (AVE) values of all the constructs ranged from a minimum of 0.529 for Government Effectiveness and a maximum of 0.676 for Subjective Norms. In addition, all the composite reliability of all constructs showed a value

above 0.7 threshold value. This confirmed that the criteria for both convergent validity and internal consistency is met by the data collected from urban respondents.

In the next step, the discriminant validity of the current data set was assessed. Results for this analysis are presented in table 20 following Fornell-Larcker criterion for the discriminant validity.

Table 20: Discriminant validity of urban model

	Attitudes Towards Entrepreneurship	Entrepreneurial Intentions	Family Support	Government Effectiveness	Perceived Behavioral Control	Risk-Taking	Subjective Norms
Attitudes Towards Entrepreneurship	**0.752**						
Entrepreneurial Intentions	0.536	**0.771**					
Family Support	0.375	0.503	**0.749**				
Government Effectiveness	0.195	0.312	0.221	**0.727**			
Perceived Behavioral Control	0.282	0.291	0.242	0.269	**0.749**		
Risk-Taking	0.421	0.474	0.209	0.153	0.182	**0.786**	
Subjective Norms	0.305	0.441	0.282	0.181	0.191	0.528	**0.822**

(Source: Own contribution)

In the above table, the value for each of the variable is the highest at its own construct as compared to its value on any other construct. This follows the Fornell-Larcker criterion for discriminant validity. Based on these findings we can urban model is validated by discriminant validity as well as by the convergent validity and internal consistency as presented in table 19.

Urban Area Structural Model

In this section, the results of the assessment of the structural models are presented. These results are assessed after the successful confirmation of the data validation explained in table 19 and 20. Urban area structural model confirmed the association between individual hypothesis with the providence of T-statistics and significance values. The following table presents the set of assessments that have been used for the structural models.

Table 21: Urban areas structural model results

Relationship	Std. Beta	Std. Error	T-value	P-Value
Attitudes Towards Entrepreneurship -> Entrepreneurial Intentions	0.344	0.345	6.022	0.00***
Family Support -> Subjective Norms	0.282	0.293	5.441	0.00***
Government Effectiveness -> Entrepreneurial Intentions	0.161	0.165	3.365	0.001***
Perceived Behavioral Control -> Entrepreneurial Intentions	0.081	0.082	1.582	0.114^{NS}
Risk-Taking -> Entrepreneurial Intentions	0.188	0.193	3.492	0.00***
Subjective Norms -> Entrepreneurial Intentions	0.193	0.192	3.026	0.002***

(Source: Own contribution)

According to the results of structural model for urban data presented in table 21, 5 of the hypotheses including H1, H2, H3, H5 and H6 has a T-value above 1.96 which is the critical value for the given statistics at a CI of 95%. H4 which represented the effect of perceived behavioral control on EI has a critical value below 1.96 for T-statistics. In addition to this, p-value scores for all of the hypotheses except H4 are below 0.01 which indicates the high significance of the data for constructed hypothesis. P-value score for the H4 is found to be above 0.05 which indicates its non-significance. These results can led to the conclusion that all of the hypotheses had a highly significant association for the studied factor and dependent variable yet only the relationship between perceived behavioral control and entrepreneurial intentions (H4) is found to be insignificant.

4.6 Validated and Structural Models for Women of Rural and Urban Areas

After a successful validation of the data on the previous categories explained in section 4.4 and 4.5, we narrowed down the analysis of data to the most specific part of this study which is women. More importantly, women belonging to rural areas were the population of peak interest in this study. Therefore, division of data was performed based on the residence of women involved in our research study.

Rural Women Validated Measurement Model

After the categorization of data, the first important step was to perform validation model. First, we took the data for rural women which is validated for its statistical accuracy. The following section represents the results of validated measurement model for data of women belonging to rural population. The first part discusses the convergent validity and internal consistency of the constructs and then presents the results of the assessment of the discriminative validity.

Table 22: Convergent validity and internal consistency of rural women

Constructs	**Items**	**F.L**	**CR**	AVE
Perceived Behavioral Control	PBC1	0.894	0.872	0.696
	PBC2	0.866		
	PBC3	0.735		
Attitudes Towards Entrepreneurship	ATE1	0.756	0.815	0.595
	ATE2	0.742		
	ATE3	0.814		
Subjective Norms	SN1	0.905	0.758	0.617
	SN2	-		
	SN3	0.645		
Risk-Taking	RT1	0.669	0.745	0.598
	RT2	0.865		
Family Support	FS1	0.472	0.817	0.615
	FS2	0.942		
	FS3	0.858		
Entrepreneurial Intentions	EI1	0.845	0.887	0.662
	EI2	0.782		
	EI3	0.859		
	EI4	0.765		
Government Effectiveness	GE1	0.456	0.821	0.548
	GE2	0.859		
	GE3	0.88		
	GE4	0.686		

Note: F.L (Factor loadings); CR (Composite Reliability); AVE (Average Variance Extracted) (Source: Own contribution)

Following the measurement model validation steps, the analysis of data presented in table 22 shows that SN2 is the only item loading removed from this data. This removal was based on the lower value of SN2 (lower than 0.7) which was affecting the CR scores of subjective norms. Its dropping led to a CR value of 0.758 and an AVE value of 0.61 for subjective norms which are above the recommended threshold values. The average variance extracted (AVE) values of all the constructs ranged from a minimum of 0.548 for Government Effectiveness and a maximum of 0.696 for Perceived Behavioral Control. Composite reliability scores for all of the constructs are above 0.7 which is threshold for composite reliability. Keeping in view these results, it can clearly be seen that the criteria for the convergent validity and internal consistency reliability for the validation are met.

Discriminant validity assessment was performed on this data as the third most important assessment of model validation measurement. Table 23 provides the results for the discriminant validity assessment of data collected from women respondents of rural areas.

Table 23: Discriminant validity of rural women model

	Attitudes Towards Entrepreneurship	**Entrepreneurial Intentions**	**Family Support**	**Government Effectiveness**	**Perceived Behavioral Control**	**Risk-Taking**	**Subjective Norms**
Attitudes Towards Entrepreneurship	**0.771**						
Entrepreneurial Intentions	0.672	**0.814**					
Family Support	0.386	0.455	**0.785**				
Government Effectiveness	0.247	0.356	0.303	**0.74**			
Perceived Behavioral Control	0.401	0.443	0.331	0.262	**0.834**		
Risk-Taking	0.592	0.676	0.301	0.047	0.352	**0.773**	
Subjective Norms	0.350	0.499	0.292	0.216	0.398	0.569	**0.786**

(Source: Own contribution)

Following the Fornell-Larcker criterion it can be seen that the studied variables provide higher values at their own construct as compared to their values on another construct. The results show that the items load more strongly on their constructs in the model, thus confirming the discriminative validity. This sums up the validation for the data of women respondents from rural areas of Tunisia and provide eminent proof based on the performed analysis for model validation.

Rural women Structural Model

In this section, the results of the assessment of the structural models are presented. Data was assessed for its statistical significance for the hypotheses under consideration. The following table (Table 24) presents the results for the structural model assessment based on the set of assessment tools used for this analysis.

Table 24: Rural women structural model results

Relationship	Std. Beta	Std. Error	T-value	P-Value
Attitudes Towards Entrepreneurship -> Entrepreneurial Intentions	**0.313**	**0.321**	**3.214**	**0.001*** **
Family Support -> Subjective Norms	**0.292**	**0.311**	**3.555**	**0.00*** **
Government Effectiveness -> Entrepreneurial Intentions	**0.222**	**0.212**	**3.826**	**0.00*** **
Perceived Behavioral Control -> Entrepreneurial Intentions	**0.087**	**0.086**	**1.691**	**0.091^{NS}**
Risk-Taking -> Entrepreneurial Intentions	**0.406**	**0.404**	**5.441**	**0.00*** **
Subjective Norms -> Entrepreneurial Intentions	**0.076**	**0.076**	**1.204**	**0.229^{NS}**

(Source: Own contribution)

Looking into table 24 we can interpret that all of the hypotheses met the criteria for significance based on the T-value scores except H4 and H6. These findings are eminent from the T-statistics scores for both of these hypotheses which are below 1.96; the critical value at 95% CI. In case of H4 the T-value is 1.69 while for H6 the T-value is 1.20. Moreover, the p-value scores for both of these hypotheses confirms the findings of T-value score as both of them are above 0.05. Recorded p-value scores are 0.09 and 0.22 for H4 and H6 respectively. Therefore, it can be said that perceived behavioral control and subjective norms do not have any significant effect on the EI of women belonging to rural Tunisia. Entrepreneurial attitude, government effectiveness and risk-taking behaviour were strongly associated ($p<0.01$) with EI of the women from rural Tunisia.

Urban women Validated Measurement Model

Data collected from the urban women was assessed as the final analysis of this study. The model validation was performed by following the methods used throughout this research which included convergent validity and internal consistency followed by discriminant validity. This section provides the results of the validated measurement model. Data for convergent validity and internal consistency is presented in table 25.

Table 25: Convergent validity and internal consistency of urban women

Constructs	Items	F.L	CR	AVE
Perceived Behavioral Control	PBC1	0.784	0.799	0.571
	PBC2	0.69		
	PBC3	0.789		
Attitudes Towards Entrepreneurship	ATE1	0.803	0.811	0.573
	ATE2	0.699		
	ATE3	0.765		
Subjective Norms	SN1	0.909	0.812	0.686
	SN2	-		
	SN3	0.74		
Risk-Taking	RT1	0.71	0.778	0.64
	RT2	0.881		
Family Support	FS1	0.69	0.776	0.538
	FS2	0.822		
	FS3	0.679		
Entrepreneurial Intentions	EI1	0.797	0.851	0.587
	EI2	0.785		
	EI3	0.784		
	EI4	0.696		
Government Effectiveness	GE1	0.641	0.812	0.522
	GE2	0.738		
	GE3	0.642		
	GE4	0.849		

Note: F.L (Factor loadings); CR (Composite Reliability); AVE (Average Variance Extracted) (Source: Own contribution)

Results in the above table shows that all of the constructs provide a value above 0.7 for factor loadings except for one factor (SN2). SN2 was found to be the problematic factor throughout this study and is removed from each of the model due to its lesser value. Though only the value less than 0.7 was not the condition for the removal of SN2, it was removed due to the reason that its low value affected CR and AVE throughout the research in each and every tested model. It caused the CR value to drop below 0.7 which is the threshold for composite reliability. A value lower than 0.7 meant lower reliability of the data but with removal of SN2, the value for CR remained stable. The average variance extracted (AVE) values of all the constructs ranged from a minimum of 0.522 for Government Effectiveness and a maximum of 0.686 for Subjective Norms. All of the values for AVE remained above 0.5. In addition, all the composite reliability of all constructs has values greater than the threshold of 0.7 for the data of urban women. Therefore, the criteria for the convergent validity and internal consistency reliability for the validation are met for this model.

In the next step we carried on with assessing the discriminant validity of the data collected from urban women respondents. Validation results from this assessment are presented in table 26.

Table 26: Discriminant validity of urban women model

	Attitudes Towards Entrepreneurship	**Entrepreneurial Intentions**	**Family Support**	**Government Effectiveness**	**Perceived Behavioral Control**	**Risk-Taking**	**Subjective Norms**
Attitudes Towards Entrepreneurship	**0.757**						
Entrepreneurial Intentions	0.597	**0.766**					
Family Support	0.411	0.45	**0.733**				
Government Effectiveness	0.227	0.299	0.213	**0.723**			
Perceived Behavioral Control	0.292	0.347	0.288	0.215	**0.756**		
Risk-Taking	0.454	0.479	0.228	0.191	0.168	**0.832**	
Subjective Norms	0.307	0.409	0.288	0.241	0.141	0.548	**0.828**

(Source: Own contribution)

Table 26 shows that the diagonal values which are the square root of (AVE) are higher at their own construct as compared to the construct of another variable. Following the Fornell-Larcker criterion this behaviour explains that the items load more strongly on their constructs in the model rather another construct. This confirms the discriminant validity of the data. Finally, the validity of the data from the urban women of Tunisia can be said as validated after successful assessment of convergent validity, CR, AVE and discriminant validity.

Urban women Structural Model

This section provides the details on the structural model assessment of Urban women data collected from the urban areas of Tunisia. The following table presents a detailed view of the set of assessments that have been used for the structural models.

Table 27: Urban women structural model results

Relationship	Std. Beta	Std. Error	T-value	P-Value
Attitudes Towards Entrepreneurship -> Entrepreneurial Intentions	0.406	0.404	5.211	0.00***
Family Support -> Subjective Norms	0.288	0.309	4.566	0.00***
Government Effectiveness -> Entrepreneurial Intentions	0.106	0.117	1.691	0.091^{NS}
Perceived Behavioral Control -> Entrepreneurial Intentions	0.157	0.158	2.487	0.013***
Risk-Taking -> Entrepreneurial Intentions	0.169	0.182	2.217	0.027**
Subjective Norms -> Entrepreneurial Intentions	0.145	0.138	1.738	0.082^{NS}

(Source: Own contribution)

Results from table 27 shows that T-value scores for most of the tested hypotheses were higher than 1.96 which is the critical value at 95% CI. H3 and H6 showed a T-statistics score below 1.96 which describes the non-significance of the effect posed by each of these factors on the studied variable. P-value for H1 and H2 was recorded below 0.01 determining a higher significance of these hypotheses while H4 and H5 showed a p-value below 0.05 which means a significant effect of the studied factors in H4 and H5 on EI. In H3 and H6, the recorded p-value scores were above 0.05 hence confirming the results of T-statistics which showed a non-significant association for the studied factors in these two hypotheses. With this being found, it is clear that the women living in urban areas are having a bit of different effects on EI as compared to the women living in rural areas

4.7 Discussion and Findings

In this chapter, the results for all of the studied variables are elaborated and compared with one another as well as with similar studies conducted around the globe. The basic theme is to find the constructive basis for scientific reasoning to provide the best outcome of this research. This chapter follow a pattern based on separate elaboration of each of the hypotheses. The explanation includes the overall as well as the categorized model validation and structured models for each and every hypothesis. Further, arguments based on the current results are presented based on the findings of the overall model as well as the models used as different categories within this research. Then, these results are evaluated and compared to the available scientific literature studied by a variety of researchers.

Entrepreneurial intentions (EI) were the major dependent variable therefore, its major interpretation made in this section is applicable to the following sections in this chapter. Convergent validity and composite reliability assessed in the overall validated model showed that all of the 4 items of EI (EE1-EE4) had a factor loading above 0.7. Composite reliability score was above the critical value 0.7 while the convergent validity assessed by AVE provided a score above 0.5. This similar pattern was followed by all of the categorical assessments for EI. Further, discriminate validity assessed by Fornell-Larcher criteria yielded a greater score for EI at its own construct as compared to the other constructs for both the overall and categorical data.

As the attitude towards entrepreneurship is an important element for the development of EI among individuals, we studied the effects of entrepreneurial attitude (EA) on the EI as the first hypothesis. Based on the data assessment of model validation, this hypothesis was found to be valid in case of overall data as well as each and every studied category including men, women, rural, urban, rural women and urban women. Factor loadings for all of the 3 factors (ATE1-ATE3) were above 0.7 for all of the collected data on hypothesis 1. In addition to this, composite reliability scores remained above 0.7 for the said hypothesis throughout the research data which indicated the reliability of the data. AVE value remained above 0.5. Fornell-Larcher criteria for discriminate validity also showed that the data for hypothesis 1 is valid.

Now proceeding towards the structured model, the assessments were quite similar to the validated model which found out the significance of this hypothesis to be highly significant i.e., attitude towards entrepreneurship has a highly significant effect on the EI of Tunisian population. This level of significance ($p<0.01$) remained the same for the overall, men, women,

rural, urban, rural women and urban women models. Wardana, Narmaditya, Wibowo, Saraswati, and Indriani (2021) investigated the EI of 376 economics students in an Indonesian university. One of the key variables discussed in the study was EA which was considered as a factor affecting EI in the study. In hypothesis 4 of the study, Wardana et al. (2021) evaluated the effect of EA on EI.

Study findings for the tested hypothesis on EA yield a value of 11.58 for CR and a p-value of 0.00 indicating the data to be validated as well as the existence of a highly significant association between EA and EI. In another study, Ayalew and Zeleke (2018) strengthened this findings by confirming the effect of entrepreneurial attitude on EI of university students from Ethiopia using component factor analysis and binary logistic regression. Several other studies including Potishuk and Kratzer (2017), Fayolle and Gailly (2015), Schwarz, Wdowiak, Almer-Jarz, and Breitenecker (2009) and Zampetakis, Kafetsios, Bouranta, Dewett, and Moustakis (2009) identified and reported similar effect of attitude towards entrepreneurship and the development of EA which strengthen the findings of our research. Bosma and Schutjens (2011) studied the variations in EA throughout different regions of Europe and found out that EA is influenced by the residence as well as the resourceful environment towards entrepreneurship. Early-stage entrepreneurship was quite high in urban areas and regions with a high concentration of local start-up examples. In another study, entrepreneurial traits were shown to have a large direct effect on entrepreneurial attitude and self-efficacy while also having a significant indirect effect on entrepreneurial intention via the mediation of entrepreneurial attitude and self-efficacy (Anwar, Jamal, Saleem, & Thoudam, 2021).

Further, the influence of family on each and every aspect of a person's life is not a myth. Therefore, the second hypothesis tested the effect of family support on subjective norms which was ultimately tested on the EI. Emotional support from family members is the most valuable asset that entrepreneurs may have. When circumstances are tough, company owners might benefit from a listening ear, encouragement, understanding, and care, as well as patience which in turn can help building the narrative of subjective norms. Statistical validation of the model provided a factor loading greater than 0.7 for two items (SN1 and SN3) while SN2 was found to be below than 0.7 in case of overall data analysis. This deviation in SN2 affected the CR value in this hypothesis causing it to lower below 0.7, for this reason, it was removed from the data. This effect of SN2 was found to be consistent throughout the data and its removal was performed in each of the categorical data analysis. Family support data provided a factor loading above 0.7 for 2 out of 5 items including FS2 and FS5. FS1, FS3 and FS4 showed a

loading below 0.7 among which FS3 and FS4 were removed from the data set due to their effect on CR value but FS1 inclusion did not caused a negative effect on the value of CR that's why it was included in the data set.

CR value for Hypothesis 2 was greater than 0.7 after the removal of SN2 which indicates a greater reliability of the data. In addition, the AVE value was also greater than 0.5 which is the threshold for AVE. The analysis of discriminant validity on Fornell-Larcher criterion showed a greater value of the items to their own construct for family support as well as subjective norms. After the successful validation of both cases (overall and categorical), the structural model analysis of Hypothesis 2 was made. Based on the overall data, this analysis showed that family support has a highly significant affect on the subjective norms ($p<0.01$). A similar effect existed between family support and subjective norms for men, women, rural, urban, rural women and urban women data where the effects were found to highly significant ($p<0.01$) for each of these categories. Subjective norms refer to an individual's impression of social pressure from persons significant to them (e.g., family, friends, coworkers, and others) to act (or not) in a specific way, as well as their incentive to comply with other people's opinions (Eckhardt, 2009). Further, Entrialgo and Iglesias (2016) described family support to be an important element for the development of subjective norms among individuals. In another study, Rostami, Hassan, and Yaghmaei (2018) found that family centered care had a direct influence on the development of subjective norms in pediatric nurses in Malaysia. In context of women entrepreneurs, the simultaneous and frequently competing duties of family and profession limits women's mobility and higher labor-force involvement; gender inequalities in schools do not simply transfer into occupational differentiation afterwards; Social conventions and preconceptions about women's roles and standing in society and the job market limit their participation in economic activities; women with children who are financially reliant on their husbands are more susceptible in situations of domestic abuse (Ariffin, Baqutayan, & Mahdzir, 2020).

This specifies the importance of family support in becoming an entrepreneur especially for the female gender. These studies support the findings of our research and proves that family support is an important predictor of subjective norms development which later effects EI of an individual. In addition, our study finds that family support is equally important for men and women, rural and urban individuals for the development of subjective norms.

Good governance is a fundamental requirement for encouraging and supporting entrepreneurship, which has a favorable impact on economic growth. Therefore, hypothesis 3 tested the effect of government effectiveness on the EI of respondents. Observed data on the convergent validity and composite reliability showed that all 4 of the items (GE1-GE4) for government effectiveness had a factor loading above 0.7 for overall data. Similar scores were recorded for the categorical analysis for each and every one of them. More, the composite reliability score recorded for overall data was 0.824 which indicated that the data is reliable. The scores for CR in the categorical data for government effectiveness were also above 0.7 for every assessed category. What's more, the AVE scores which indicates the convergent validity were above 0.5 consistently throughout the data. Discriminant validity as assessed by Fornell-Larcher criterion showed a stronger value of the assessed variables included in the hypothesis against their own construct as compared to the constructs of other variables both for overall and categorical data.

The analysis of structured model showed that the effects of government effectiveness are highly significant for the development of EI among study respondents overall. This effect was also observed for the categorical data of men, women, rural, urban area and rural women. The only categorical analysis which showed a non-significant association between the government effectiveness and EI was the urban women ($p>0.05$). It means that the government effectiveness had a little to no effect on the development of EI among women belonging to urban Tunisia unlike the women of rural Tunisia. M. J. Malebana (2017) conducted a research study in rural areas of South Africa with the aim to address the effectiveness of government interventions in promotion of entrepreneurship. The study collected data from 355 final year commerce students studying in two different universities, situated in rural South Africa. Different forms of entrepreneurial support offered by the South African government was analyzed with findings revealing that the supportiveness of the entrepreneurial environment influences the creation of entrepreneurial intention.

This entrepreneurial environment meant the support of government for promoting entrepreneurship. Further, Ali et al. (2010) research on understanding the effects of governance on the EI of students. In a thrive to understand the negative effect of government ineffectiveness on demotion of EI, Ali et al. (2010) found the association to be significant. The non-significance of government effectiveness in urban women can be explained by the phenomenon of M. J. Malebana (2017) which stated that rural community have a little benefit from the government based schemes of entrepreneurship. For this very reason, it is mandatory that rural

community especially rural women of Tunisia will have a better realization of government effectiveness for the development of EI as compared to the urban women.

In the case of government assistance programmes, it is thought that because the government is the driving force behind entrepreneurial development, it should offer the much-needed resources within its capacity. Such resources include the creation of a business-friendly atmosphere that will greatly encourage entrepreneurship. Pals (2006) stated that government policies relating to entrepreneurship must be properly executed regardless of whatever administration is in power in order to meet the aims of the guidelines, which are frequently lacking. In accordance with prior researches, the findings of our study show that entrepreneurial assistance offered by the government can play a critical role in boosting rural entrepreneurship by driving entrepreneurial intention antecedents (Lüthje & Franke, 2003; M. Malebana, 2014; Saeed, 2015). The Chinese government has made great attempts to encourage high-tech enterprises through laws and resources (Cullen, Calitz, & Chandler, 2014). The Brazilian entrepreneurial movement has grown rapidly as a result of government measures aimed at creating both low-tech and high-tech enterprises (Etzkowitz, 2002). According to a recent research (Salem, 2014), the Kingdom of Saudi Arabia developed a ten-year entrepreneurship and innovation plan in 2010. The goal was to position the Kingdom on a level with highly competitive economies across the world. In the context of Malaysia, the government has supervised the establishment of numerous technology financing organizations with the goal of providing full support to technology businesspeople in its quest to promote Malaysia through the expansion of technology entrepreneurship (Ajagbe & Ismail, 2014). This includes the government's development of venture capital businesses with the goal of promoting investments in high-growth firms since they find it difficult to secure appropriate finance during the early stages of growth. These studies represents only a little portion of the efforts put forth by the government institutes of world economies to promote and support entrepreneurship on local, national and international level.

Hypothesis 4 discussed the effect of PBC on EI of the respondents. The assessment of overall data validity for perceived behavioral control showed that 3 out of 5 items (PBC1, PBC2 and PBC5) had a factor loading above 0.7 while two items namely PBC3 and PBC4 had a factor loading below 0.7 for the overall data. Not only this, these values caused the value of CR to drop below the threshold 0.7 due to which, these values were removed from the overall validity measurement analysis. Further, the categorical analysis of perceived behavioral control used only those items which had a loading greater then 0.7. CR value for the overall as well as the

categorical data showed a consistent value above 0.7 which indicated the reliability of the data. Similar, finding existed for the convergent validity (AVE) data which showed a value above 0.5 throughout the data. These findings were also supported by the data analysis of discriminant validity which showed a higher score against the own construct of the variable under consideration as compared to the constructs of other variables. According to the overall data, the T-value for H4 fell slightly below 1.96 while the p-value was found above 0.5 which indicated a non-significant association between the perceived behavioral control and EI.

Throughout the data, perceived behaviour control was non-significantly associated with EI except for the women and urban women models. In both of these models, PBC showed a highly significant association with EI. It is eminent from the data that PBC had a strong influence on the development of EI among Tunisian women especially, the women belonging to urban societies. While assessing the importance of entrepreneurial education, Fayolle, Gailly, and Lassas-Clerc (2006) found that perceived behavioral control was negatively associated with the progression of EI among study respondents. However, Cynthia, Ameh, and Alabi (2020) found a significant association between PBC and EI. The correlation of PBC was found to be positive (b=.251) using linear regression analysis which indicated that 1 unit change in PBC can cause .251unit change in EI. The study of M. J. Malebana (2017) found a significant association for government support and perceived behavioral control which can answer a lot of questions related to our findings and the findings of previous researches. The existence of government support in urban societies of Tunisia made them realize the importance of PBC this is why our study found significant effects in those areas however, a lack of access to sufficient government support in rural societies led to little knowledge about PBC in rural areas for this reason the effects were non-significant there. Yet these explanations can be the possible cause, our results are supported by previous research.

Furthermore, the relation of risk taking behaviour (RT) with EI was studied in the 5th hypothesis. Assessment of the validity of data showed that 2 out of 4 (RT1 and RT3) items had a factor loading above 0.7. RT2 and RT4 had a loading below 0.7 and they were affecting the value of CR to drop it below 0.7 this is why they were removed from the overall model. Categorical data only considered those items of RT whose factor loadings values were above 0.7. Further, CR value (after the removal of two items with a factor loading below 0.7) remained stable above 0.7 in overall as well as in categorical data. AVE value was recorded to be above 0.5 for risk taking in all of the assessed data types which confirmed the convergent validity of the data. In addition to this, the results of discriminant validity showed that the

variable had a greater value at its own construct as compared to the constructs of other variables. These results confirmed the validity of data for H5.

Results from the overall structured model showed that risk taking behaviour has a highly significant association with entrepreneurial intentions. Similar findings existed in the men, women, urban, rural and rural women models. In the urban women's model, the value for probability was recorded as 0.027 which is below 0.05 but above 0.01 indicating that the association between RT and EI is significant for urban women. A study conducted on the social entrepreneurship intentions considered influence of attitude, risk taking behaviour and proactive personality as the independent variables (Chipeta & Surujlal, 2017). 294 students from different universities of South Africa were selected as sample of study. Upon analysis of data, it was found that, risk taking is the most contributing towards EI. Results showed a highly significant effect of risk taking behavior on EI of the study respondents (beta=.540, p=<.000). Another study conducted by Zhang et al. (2015) for the determination of EI among university students in USA also showed a positive association between RT and EI of the respondents. These findings are inline with other researches which found similar effects of RT on EI (Fernandes, Ferreira, Raposo, Sanchez, & Hernandez–Sanchez, 2018; Karabulut, 2016; Mujahid, Mubarik, & Naghavi, 2020) Entrepreneurship education is beginning to focus less on increasing entrepreneurial intent and more on increasing nascent entrepreneurs' chances of success by teaching the various tools students should master and the risks they should prepare for before embarking on an entrepreneurial venture (Murray, 2019). Although entrepreneurial success cannot be guaranteed, exposing students to real-world activities, experiences, and tools may better educate them to comprehend and handle the risks associated with entrepreneurship.

The final analysis of this research (hypothesis 6) assessed the impact of subjective norms (SN) on EI of the study respondents. Validity assessment for the overall data showed that only 1 out of 3 (SN1) items had a factor loading above 0.7 for subjective norms. SN2 and SN3 had a loading value below 0.7 but only SN2 was removed because its removal caused the value of CR to stabilize above 0.7 even without the removal of SN3. This finding from the overall data resulted in the removal of SN2 throughout each categorical data set for stabilizing the value of CR above 0.7. For this reason, the CR representing reliability of data remained above the threshold value (0.7) not only for the overall data but also for the categorical analysis as well. The AVE value recorded for every data set was above 0.5. Fornell-Larcher's discriminant validity assessment showed that the SN had a greater value against its own construct as compared to its values on other constructs for both; overall and for categorical data.

Structured model analysis of the data showed that the effects of subjective norms on EI were highly significant overall ($p<0.01$). Among the categorical data of men, rural area and urban area the results were highly significant. For the women model, the p-value recorded was below 0.05 which indicated a significant effect of SN on EI of women. However, the categorical analysis of women data showed a non-significant association of SN and EI for both rural women and urban women data. Therefore, it can be said that the overall effects might be significant but a separate category based analysis found non-significant affects for SN on EI among women living in rural and urban societies. For assessing the effects of attitude, self-efficacy, subjective norms, perceived behavioral control and entrepreneur education towards entrepreneurship, Utami (2017) conducted a study in east Java, Indonesia. Results of the study found significant effects of subjective norms on EI of the study respondents (T-value=2.97, p-value=0.004). Further, M. Z. Solesvik (2013) also found similar effects of subjective norms on EI during a research study. Moreover, Yousaf, Shamim, Siddiqui, and Raina (2015) also found subjective norms to be effecting the development of entrepreneurial intentions among university students in Pakistan.

This effect was highly significant with a p-value < 0.01. While assessing the effects of personal attitude and subjective norms on entrepreneurial intent, Muliadi and Mirawati (2020) found out the F-test value for multiple linear regression as 16.036, and the significance value of 0.000 which was less than the alpha value of 0.05 (> 0.05). It suggested that there was an impact of attitude and subjective norms on students' entrepreneurial intent at the same time. Although most of the literature support the findings of our study, one interesting finding is the non-significance of SN among the women respondents of rural and urban societies. With this, it can be estimated that the women of Tunisia consider familial support an important element which is proven by H2. However, very few of them actually have the ample access to SN as a motivating factor for EI.

5. CONCLUSION

Entrepreneurial intentions are proven to have an important part in the development of entrepreneurship in Tunisian society. Different social, psychological and environmental factors including entrepreneurial attitude, family support, perceived behavioral control, subjective norms, government effectiveness and risk-taking behavior were all affecting the status of entrepreneurial intentions among Tunisian population.

H1: Attitude towards entrepreneurship was a strong predictor of entrepreneurial intentions among general Tunisian population. Attitude towards entrepreneurship tested in H1 showed a highly significant association with entrepreneurial intentions at 95% CI. This effect was consistent for the overall and categorical data which signified the importance of attitude development among general public regardless of their gender or residence. A glimpse of the importance of attitude in the development of entrepreneurial intentions among the Tunisian men and women belonging to both urban and rural areas set the standards for more practical measures for the successful inauguration of new endeavors.

H2: Family support proved to be an important contributor in mitigating subjective norms of Tunisian population. Family support affected subjective norms which in turns showed to have an effect on entrepreneurial intentions of the respondents. The effect was either direct or indirect; means that there existed a mediating factor as in case of family support and subjective norms. Family support among the population is more important for the women as compared to men due to the men dominated nature of Tunisia. This support not only enable the women to live a more complete life as a housewife but also provides key mental features to cop with other fields of life. Entrepreneurial intentions being indirectly effected by family support showed the need for greater guidance of the family members to ensure a safe and healthy working environment for the working women.

H3: Effective government support and policies posed a positive effect on the development of entrepreneurial intentions. Urban areas are fairly supported by the government due to a higher level of education and greater access to available resources yet the rural areas are struggling continuously for a better survival. A similar repetition of this significance was found for each of the categorical model as well. Government effectiveness also affected the entrepreneurial intentions of Tunisian population at a higher significance as observed in overall model ($p<0.01$). In addition, this effect stayed mostly the same for each categorical model except the urban women. Which meant that urban women didn’t consider government effectiveness to be

a factor that affected their entrepreneurial intentions. Governmental support was found to be significantly associated in all of the tested models except the urban women model which can conclude that rural Tunisian women considered governmental support important due to the lack of access to government facilities. The negligence of supportive policies in the rural areas can serve as a possible barrier to the development of entrepreneurial intentions among rural Tunisian women of all ages. Therefore, it is the duty of the government to provide equal opportunities to the people of rural areas of Tunisia in terms of developing entrepreneurial friendly policies.

H4: Perceived behavioral control showed a non-significant association with entrepreneurial intentions. Interestingly, perceived behavioral control was significantly associated with the overall women and urban women models while it was non-significant for the rest of the models. Men being in dominant possession has greater opportunities for becoming entrepreneurs but women especially the rural women of Tunisia lack the eminent resources to become an entrepreneur. This give rise to an explanation that urban women considered perceived behavioral control important whereas this factor was non-significant for rural women of Tunisia. The effects of studied factors varied based on the gender and residence of the respondents. Based on gender differences, men were showed to be affected by almost each studied factor except for perceived behavioral control. Perceived behavioral control affected the urban women's entrepreneurial intentions yet it didn't affect the intentions towards entrepreneurship of rural women, which provides a clear image of the lack of resources in the rural Tunisia.

H5: Risk taking behaviour of study participants in Tunisia created higher chances for the development of entrepreneurial intentions. Risk taking was strongly associated ($p<0.01$) with entrepreneurial intentions at 95% CI for all of the models except the urban women model which showed a p-value less than 0.05. Women, who were the most important population of this study showed variant results based on the analysis conducted for their residences. The importance of risk taking behavior among the rural Tunisian women is an important highlight of this study. The significant involvement of risk taking behaviour in the rural women model indicated the presence of hesitation among women in rural areas. This hesitation provided with little number of risk takers among the population showing a lower confidence level of these women. There is need of the development of successful risk takers in rural Tunisia which is only possible with sufficient family support and interventions entrepreneurial education.

H6: Subjective norms influenced by family support showed a positive development in the entrepreneurial intentions of Tunisian public. Although, subjective norms of the women (both rural and urban) were affected by the family support, it had a little effect on the entrepreneurial intentions of women. Residential women of urban areas of Tunisia showed to have an effect of attitude, risk taking behavior and perceived behavioral control on their entrepreneurial intentions. However, women living in the rural areas of Tunisia reported an effect of attitude, risk taking behavior and government effectiveness on their entrepreneurial intentions. Neither of the women based on the separated residence model showed to have an effect between the existence of subjective norms and the development of entrepreneurial intentions. The effects of SN were significant for the overall, rural and urban models but it remained non-significant for the separate categorized model of rural and urban women. With this it can be said that women of the rural area of Tunisia face unique challenges as compared to the women of urban Tunisian society due to the lack of facilities in the rural Tunisia. Government and other private authorities who has the responsibility of providing support to this rural Tunisia should focus on the development of a unique strategic plan for improving the entrepreneurial intentions of rural Tunisian population especially women, which in terms can produce better livelihood through sustainable entrepreneurship.

5.1 Recommendations

- The most important aspect for the development of entrepreneurial intentions is the arrangement of entrepreneurship education. This step will provide the facilitators of Tunisia (especially rural Tunisia) to learn more about the basics of entrepreneurship, to evolve better plans for investment and revenue generation etc., which will improve their attitude towards entrepreneurship. An improvement in attitude will ultimately cause the improvement of entrepreneurial intentions.

- As, it is eminent from the results that those having an entrepreneurial family background possess better chances of succeeding in the field of entrepreneurship, therefore, the addition of entrepreneurial education to basic school education and advance higher-level education can provide the edge to those belonging to non-entrepreneurial families.

- Importing entrepreneurial field training sessions will enable the residents of rural Tunisia to attend the sessions with ease as most of them are agricultural labor. This will circulate the idea of entrepreneurship not only to a single individual but to families which in turns can provide social support and generate better subjective norms for those who seeks to become entrepreneurs in the future.

- The development of policies by the Tunisian government for strengthening the already present entrepreneurial opportunities for the rural women which can be done by providing them support through asset improvement i.e., a cash transfer program, which can give them a good capital investment to start their own enterprises.

- Data from this research also shows a wide range of innovativeness among the Tunisian population regardless of gender and residence which can be developed into successful enterprises with the help of targeted government programmes. Entrepreneurs' innovativeness may tend to improve toward the achievement of economic growth through the development of SMEs. These SMEs in the area will employ more people, boosting the wealth of the area. To summarize, innovative enterprises contribute significantly to economic growth by creating jobs, creating income, developing new markets, and driving technical advancement.

- There should be a financing pattern in place to ensure that the assistance programme is consistently supported in order to achieve economic growth through entrepreneurship.

The policy document creating the assistance programme should be used to fund the programme.

- As the government is in charge of the development, sponsorship, and administration of most assistance programmes, particularly in developing nations, a government proclamation on entrepreneurship will go a long way toward assuring the sustainability and constructive entrepreneurial practice. As a result, it will spur economic development through SME development, job creation, and wealth generation.

5.2 Limitations

- This study considered only the variables addressed in literature. Any additional variables which were identified or marked during the data collection were not considered for our study.
- As this is the first of its kind sort of research in Tunisia, therefore, our data involved 500 study respondents. Future studies can consider a greater number of respondents to achieve greater area coverage and provide more reliable results.
- A little portion of the respondents filled the questionnaire forms through online resources. Although its not greatly impacting our results, the use of internet platforms sometimes leads to data exaggeration which can be considered as a limitation of the study.

6. NEW SCIENTIFIC RESULTS

New scientific findings are an important part of a research which may challenge past scientific conclusions and propose new approaches, or they reinforce previous findings in various ways. In the Tunisian context, our research is the first one with the three extended factors (risk-taking, family support, governance) of the theory of planned behavior. In addition, the findings of this study will help in the development of more precise and effective strategies to target entrepreneurial intentions of Tunisian population (especially females). The gap between the facilitation of rural and urban Tunisia can also be bridged using the study findings most relevant to the topic. Some of the key findings of this study are as follows:

1. Subjective norms of the Tunisians (both male and female) were found to be influenced by the family support of the individual. This showed that the more a person in Tunisia is supported by the family, the more there will be an influence on subjective norms which can be positive or negative depending on the type of family support a person receives. These effects of subjective norms and familial support are also proven from previous researches and will add up to the body of literature.

2. The important role of government in the improvement of entrepreneurship was recognized by rural women of Tunisia. However, urban women model showed a non-significant association with the government effectiveness of Tunisia. This finding revealed that urban Tunisian women receive a better support and more furnished policies and resources from the government which is why the effectiveness seems negligible to them but for the rural women, they are highly dependent on effective government policies for an improvement in entrepreneurial intentions.

3. A novel research finding is that perceived behavioral control among the women of both rural and urban areas of Tunisia was found to be effecting entrepreneurial intentions among them. A body of research support our finding but some researches also shows a non-significant association of perceived behavioral control and intentions of entrepreneurship in different regions of the world.

4. Risk taking behavior was directly associated with entrepreneurial intentions of Tunisian individuals. This finding was also consistent with available research which determine that the risk taking of an individual can be used as a predictor of entrepreneurial intentions development among the individual. The presence of risk taking with an

entrepreneur can build a better suited individual for starting and managing firms which has been reported in a number of studies. The more focus made on the development of risk taking among Tunisians, the better intentions towards entrepreneurship can be achieved.

5. Although the men's data showed a significant association, the role of subjective norms in the development of entrepreneurial intentions among women of Tunisia (both rural and urban) was found to be non-significant. Literature available on the subject supports the effect of subjective norms on entrepreneurial intentions for most of the cases however, the non-significant association between the two among Tunisian women can be explained by the lower awareness of subjective norms among Tunisian women due to lower family support. This finding is vital for developmental strategies in the field of entrepreneurship, yet, more strengthen evidence is required through more research on the subject in Tunisia.

7. SUMMARY

Entrepreneurship is one of the most important components of a country's survival. Its impact exists from local household purchases to global import/export of a country which ultimately affect the financial stability and livelihood assistance of the countrymen. Though it is equally important for all sorts of economies, a greater emphasis is required in the global economy of developing countries who suffer great financial barriers due to the lack of sufficient resources. Tunisia being separated from the French in 1956 is amongst one of the most rapidly growing world economies. Being a greater participator in agriculture, industry and services around the globe,

Tunisian government aims to provide better ways of living to its residence. For this reason, entrepreneurship is becoming more and more important for Tunisian population regardless of their residence and gender. Urban areas are fairly supported by the government due to a higher level of education and greater access to available resources yet the rural areas are struggling continuously for a better survival. Men being in dominant possession has greater opportunities for becoming entrepreneurs but women especially the rural women of Tunisia lack the eminent resources to become an entrepreneur. Entrepreneurial intentions (EI) are the basis of entrepreneurship for any individual; these are the thoughts and perceptions of an individual to become an entrepreneur.

These intents are often affected by certain factors which either promote EI or demote it. Studying entrepreneurship through EI is one of the most sophisticated and efficient way of understanding entrepreneurship. For this reason, this study was developed to understand the affect of certain factors on the EI of rural Tunisian women. A literature review was conducted to identify the factors which had an effect on EI of individuals. Entrepreneurial attitude (EA), Risk taking (RT), Perceived behavioral control (PBC), Government effectiveness (GE) and Subjective norms (SN) were the factors considered for this study. Effects of each of these factors was studied against EI of the study respondents. In addition, the effects of family support (FS) were also assessed on the PBC of individuals. Further, a causal study design was used to address the effects of identified variables on the rural women of Tunisia.

For this purpose, 508 study respondents including both male and female from different parts of Tunisia were selected for the study. 8 respondents did not provide appropriate response and were dropped from the study which left us with 500 study respondents. Although, the main focus of this study was women, men were included for assessing the comparative analysis

between the two genders. Both qualitative and quantitative forms of data was collected from the study participants. Selection of the respondents was done purely on random basis to avoid the chance of bias in data. Collection of data was performed on a structured questionnaire which was composed of two parts. Part one focused on the demographics of the respondents including age, marital status, education, business type etc., while the second part of the questionnaire contained questioned items relating to the variables under consideration. Hand to hand data collection was used for field visits while an online questionnaire was also developed for providing ease in data collection. Structured interview sessions were also conducted for the collection of data.

After a successful data collection, the data was subject to statistical analysis using Microsoft excel and PLS 3.0. At first, an analysis of the overall data was conducted then data was divided into groups to assess and compare results between them. Grouping of data was performed based on residence (rural and urban), gender (Men and Women) and only women with difference residence (rural women and urban women). As a first step of data analysis, the validity and reliability of data was checked to provided results which can be relied upon. Convergent validity and composite reliability (CR) analysis for the overall as well as grouped data showed that CR values were above 0.7 which is the threshold for CR. Convergent validity values (AVE) were also found to be above the threshold (0.5) for all types of analysis. Majority of the factor loadings were above 0.7 however, in case when the factor loadings were below 0.7 their removal was only considered if they had any effect on the CR or AVE values of a variable. Similar steps of analysis were followed for all data categories. After the successful validation of the models, the structural modeling was performed. EA tested in H1 showed a highly significant association with EI at 95% CI. This effect was consistent for the overall and categorical data.

The effects of FS on PBC were also found to be highly significant based on the overall model. A similar repetition of this significance was found for each of the categorical model as well. Government effectiveness also affected the EI of Tunisian population at a higher significance as observed in overall model ($p<0.01$). In addition, this effect stayed mostly the same for each categorical model except the urban women. Which meant that urban women didn't consider government effectiveness to be a factor that affected their EI. GS was found to be significantly associated in all of the tested models except the urban women model which can conclude that rural Tunisian women considered GS important due to the lack of access to government facilities. Interestingly, PBC was significantly associated with the overall women and urban

women models while it was non-significant for the rest of the models. This give rise to an explanation that urban women considered PBC important whereas this factor was non-significant for rural women of Tunisia. RT was strongly associated ($p<0.01$) with EI at 95% CI for all of the models except the urban women model which showed a p-value less than 0.05. The effects of SN were significant for the overall, rural and urban models but it remained non-significant for the separate categorized model of rural and urban women.

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