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FACTORS LINKED WITH ENTREPRENEURIAL INTENTION AND SOCIAL IDENTITY: THE QATAR CONTEXT

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ABSTRACT

Qatar has an economy that capitalizes on natural resources, and entrepreneurship is a strategy to achieve economic diversification. Two of the highly studied antecedents of entrepreneurship are investigated in the current entrepreneurial context to promote entrepreneurship: entrepreneurial intention and entrepreneurial social identity. In this thesis, the first study focused on the determination of entrepreneurial intention among the adult population of Qatar, and the identification of explanatory variables which promote entrepreneurial intention. In the second study, entrepreneurial social identity was explored, and variables linked to each social identity were determined.

Responses of 2,515 respondents in the Adult Population Survey (APS) were analysed using binary logistic regression to determine variables which promote entrepreneurial intention. For the second study, answers from 545 entrepreneurs were analysed using multiple correspondence analysis (MCA), to determine the relationship of entrepreneurial social identity with business performance, demographic characteristics, and firm characteristics. Gender (favouring females), age, nationality, educational level, perception of "*self-efficacy*", "*need for achievement*," "*role model*," "*high status*", "*media attention*" and "*career choice*" were statistically significant explanatory variables of entrepreneurial intention. Inclusion of the interaction variables resulted in changes in the odds ratio of sociodemographic variables, individual perceptions, and socio-cultural perceptions. In the second study, MCA results revealed distinct clusters with business and entrepreneurial characteristics.

Overall, the results imply that the entrepreneurial environment in Qatar is a unique context that enriches existing entrepreneurial models. The results of the study contribute to entrepreneurial policy development, promote entrepreneurship, and address economic diversification.

Keywords: Entrepreneurship, Entrepreneurial Intention, Theory of Planned Behaviour, Social Identity, Economic Diversification, Qatar.

ABBREVIATIONS

AIC: Akaike Information Criteria

APS: Adult Population Survey

BIC: Bayesian Information Criteria

CEF: Center for Entrepreneurship

CFI: Comparative Fit Index

CI: Confidence Interval

Coor.: Coordinate

Cos^2: Square Cosine

CTR = Relative Contribution

Df: Degree of freedom

EFCs: Entrepreneurial Framework Conditions

EI: Entrepreneurial Intention

GCC: Gulf Cooperation Council

GDP: Gross Domestic Product

GEM: Global Entrepreneurship Monitor

IMF: International Monitory Fund

MCA: Multiple Correspondence Analysis

MENA: Middle East and North Africa

NECI: National Entrepreneurship Context Index

NES: National Expert Survey

NFI: Normed Fit Index

OLS: Ordinary Least Squares

QAR: Qatari Riyal

QBIC: Qatar Business Incubation Centre

QDB: Qatar Development Bank

QNV: Qatar National Vision 2030

QSTP: Qatar Science and Technology Park

RMSEA: Root Mean-square Error of Approximation

SEE: Shapero's Entrepreneurial Event

SMEs: Small and Medium-sized Enterprises

TEA: Total early-stage entrepreneurial activity

TPB: Theory of Planned Behaviour

TRA: Theory of Reasoned Action

UAE: United Arabs Emirates

UK: United Kingdom

USA: United States of America

USD: The United States dollar

VIF: Variance inflation factor

WDI: World Development Indicators

$\chi 2$: Chi-square

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1. CHAPTER ONE: INTRODUCTION

"Entrepreneurship is living a few years of your life like most people won't, so that you can spend the rest of your life like most people can't."

- Anonymous

1.1. BACKGROUND

Entrepreneurship is globally recognized as a common feature of successful economies and has been encouraged to sustain economic growth (Acs et al., 2012; Bruton et al., 2017; Minniti & Lévesque, 2010; Stel et al., 2005; Urbano & Aparicio, 2016; Wong et al., 2005). With this goal in mind, entrepreneurship theorists have long studied how to promote entrepreneurship by studying the role of various personality traits and skills, self-perceptions, entrepreneurial climate, social norms, and socio-cultural factors (Aboal & Veneri, 2016; Beynon et al., 2019; Konon & Kritikos, 2018; Lerner et al., 2018; Sperber & Linder, 2019). It is also recognized that the long-term success of entrepreneurial activity lies in a well-established entrepreneurial system in a specific geography (Hechavarría & Ingram, 2019). Despite efforts in constructing models which ensure successful entrepreneurial activity, much still remains to be explored as economies are diversifying in the current global condition and not a single entrepreneurial model addresses the unique entrepreneurial climate of each country.

Several studies have already established good explanatory or predictive entrepreneurial models to promote entrepreneurial activities, either by focusing on causation or reciprocation. Previous research efforts, however, present limitations as the resulting models from the studies were country-specific and only considered the unique personality traits and entrepreneurial environment of the recruited respondents. Much remains to be explored in other countries which do not fit the current entrepreneurial models. Qatar, for example, is a resource-rich country and is characterized by a particular economic and cultural characteristics that are distinctive from other Arab or Western countries (Kebaili et al., 2015). It is argued that the previously highlighted models from other studies may not fully address the need for entrepreneurship in Qatar, since the country has unique entrepreneurial barriers. Furthermore, using non-contextualized models to build entrepreneurship policies in Qatar may only lead to unrelated or non-contextualized solutions to promote entrepreneurial activity in the country. It was reported

that Qatari citizens have low commitment to entrepreneurship (Kebaili et al., 2015). In addition, an emerging sector in Qatar is digital entrepreneurship, which involves electronic commerce models (Younis et al., 2020), allowing budding entrepreneurs to scale up their ideas towards commercialization. In light of the changing dynamics of entrepreneurship in Qatar, there is a need to develop an entrepreneurial model which is specific to the entrepreneurial climate of the country. The logical step, therefore, is to investigate the individual, economic, and socio-cultural factors which focus on the antecedents to entrepreneurial activity – entrepreneurial intention and social identity.

1.2. THE NEED FOR ENTREPRENEURIAL INTENTION MODEL IN QATAR

Entrepreneurial intention, an antecedent to entrepreneurship, has been a ubiquitous topic in entrepreneurship research due to its direct influence on actual entrepreneurial activity. Successful transition from being passive, but entrepreneurship-driven individuals to actively engaged entrepreneurs contributes to national goals towards sustained economic development and employment generation. Whilst entrepreneurial intention is commonly assessed among young, prospective entrepreneurs such as students (Falck & Woessmann, 2013; Hsu et al., 2019), the precursor of actual entrepreneurial activity has also been assessed among public sector employees (Ng & Clercq, 2021), and other individuals with previous entrepreneurial experience (Lin & Si, 2014).

The development of predictive models and identification of relevant personal and personal factors which positively predict entrepreneurial intention has been widely explored in several countries before this academic endeavour. Several research efforts to identify the predisposition to participate in entrepreneurship have been carried out in other nations although the predictors were identified using students as respondents. A recent study has also explored digital entrepreneurship intentions among college students in Qatar (Younis et al., 2020). While it is recognised that entrepreneurial activity provides a more robust depiction of economic outcomes from various business ventures, the entrepreneurial intention remains a significant antecedent to entrepreneurship among individuals.

Throughout the years, successful economies have cited entrepreneurship as a predictor of a country's trajectory towards economic sustainability. Entrepreneurship has been reputed as a substantial element that positively influences economic growth and development (Acs et al., 2012; Bruton et al., 2017; Minniti & Lévesque, 2010; Stel et al., 2005; Urbano & Aparicio,

2016; Wong et al., 2005). Additionally, entrepreneurship is considered as a driver of innovation (Castaño et al., 2016; Wong et al., 2005) and is known to have a positive influence on job creation, which is considered as a distinct characteristic of flourishing societies (Castaño et al., 2016; Henrekson, 2005, 2006; Zhao et al., 2005). It is acknowledged that developed countries with higher labour costs prefer knowledge-based and innovative activities which contribute to the generation of revenue and employment opportunities (Audretsch et al., 2009). Lastly, entrepreneurship spurs innovation that supports the creation of business start-ups.

Entrepreneurial activities among countries in the Gulf Cooperation Council[1] (GCC) are unique contexts that provide additional insight to the global effort to determine significant predictors of entrepreneurial behaviour and entrepreneurial intention. With the discovery of oil and gas in these countries, exponential economic growth has greatly contributed to the rise in their gross domestic product (GDP) in the past decades. However, this upward trajectory was hampered by the sudden price drop in 2014 (Tok, 2020), prompting the shift of focus in oil-based hydrocarbon ventures to other diversified entrepreneurial options (Al-Khouri & Dhade, 2014). The economic volatility exhibited by the hydrocarbon industry has prompted various economic players to consider searching for other possible business ventures to sustain economic progress.

With the sudden dip in the economic value of hydrocarbon products, Qatar and other countries in the GCC are projected to experience uncertainty with their current dominant industry, prompting an impetus for identifying alternative economic resources and opportunities to explore (Qatar Development Bank, 2017; Tok, 2020). Among the members of the GCC countries, Qatar has developed a strategy to address economic diversification through the expansion of the private sector. In fact, the Qatar National Vision 2030 (QNV) has been launched to expand the country's business portfolio, shifting from hydrocarbon industries to various non-hydrocarbon-related ventures by promoting increased entrepreneurial activities (General Secretariat for Development Planning, 2008). Entrepreneurship has steadily gained momentum in the past years to reflect the need to diversify economic opportunities (Costa & Pita, 2020; Ennis, 2018; Tok, 2020).

Due to the uncertainty faced by the hydrocarbon industry, reliance on hydrocarbon-based products to sustain economic growth needs to be modified. This is only possible when economic

[1] *The Gulf Cooperation Council was established in 1981, which consists of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. Its six members have a combined area of 2,673,108 km^2 (1,032,093 sq mi) and an estimated population of around 65.5 million.*

diversification is promoted and implemented (Miniaoui & Schilirò, 2017). Resource-rich countries are have been cited to be more likely to experience resource vulnerability when there is an absence of economic diversification (Collier & Goderis, 2012; Sala-i-Martin & Subramanian, 2013; van der Ploeg & Poelhekke, 2009). The current shift from the rentier modality to non-hydrocarbon economic option among GCC countries reflects the increasing emphasis on resource diversification through entrepreneurship (Miniaoui & Schilirò, 2017).

Despite an initial effort to identify factors which influence entrepreneurial intention in Qatar, much remains unexplored due to the unique sociodemographic characteristics of individuals who are either already involved in entrepreneurial activities or are still planning to embark on new start-ups, and the socio-cultural and entrepreneurial environment differs from other contexts where current entrepreneurial models are developed from. As emphasized earlier, the Qatar is joined by Saudi Arabia, Oman, Bahrain, Kuwait, and the United Arab Emirates (UAE) as countries that receive high revenues from hydrocarbon industries (Tok, 2020). It is worthy to cite that high dependence on the oil and gas industry has pacified the need for diversification of business industries (Ennis, 2015).

1.3. THE NEED FOR DETERMINING SOCIAL IDENTITY OF PROSPECTIVE QATARI ENTREPRENEURS

Social identity is important to consider when establishing the readiness and propensity of Qatari citizens to shift from being dependent on the hydrocarbon industry towards embracing entrepreneurial opportunities. As argued, entrepreneurship has the potential to keep the economy of Qatar afloat in the coming years is the determination of the entrepreneurial social identity of the entrepreneurs in Qatar. Stemming from the social identity theory introduced by Sieger et al., (2016), the characterization of the social identity of entrepreneurs in Qatar helps predict the appetite and preference towards specific types of industries and other income-generating opportunities, which could serve as a focal point for the policy development and government support. Characterizing nascent and experienced entrepreneurs based on their social identity not only predict entrepreneurial behaviour but also influences the success of developing better opportunities for all entrepreneurs who exhibit entrepreneurial intention.

At present, there are three dominant social identities that were depicted in recent literature (Alsos et al., 2016; Fauchart & Gruber, 2011), allowing the classification of entrepreneurs into pure "*Darwinians*," pure "*Communitarians*" and pure "*Missionary*". Based on established characteristics, "*Darwinians*" a have strong predisposition towards profit generation, while

"*Communitarians*" focus on identifying with their products and their intended users (Alsos et al., 2016). Lastly, "*Missionaries*" emphasize the social aim or entrepreneurship, emphasizing the role of entrepreneurship as a mediator of social change (Alsos et al., 2016; Sieger et al., 2016). With these three distinct social identities, entrepreneurs in Qatar may offer an additional insight on which industries are preferred by each pure identity. In addition, the identification of entrepreneurs exhibiting predisposition for a combination of the pure enriches the economic landscape from which business models specific to members of the Gulf Cooperation Council can be drafted.

It is important to state that in recent years, business opportunities in Qatar have already diversified towards manufacturing, banking, social services, and tourism, although the hydrocarbon industry remains the main contributor to the remarkable economic growth of the nation (Shachmurove, 2009). Such observation is interesting, since entrepreneurial activities were common in undeveloped countries (Costa & Pita, 2020). With the approach of this study towards the identification of factors linked to entrepreneurial intention and social identity, the business models unique to countries that previously depend on hydrocarbon-based industries but are transitioning towards other business ventures can be refined and serve as a guide in the development of policies and opportunities towards economic sustainability.

It is well recognized that the oil price shock in 2014 (Tok, 2020) has indeed created a rippling impact on all kinds of entrepreneurs and their decision to either explore entrepreneurship or expand their current entrepreneurial activity. Revisiting national reforms to sustain the economic growth of the country due to the experienced challenges on the sustainability of resources (Costa & Pita, 2020) is expected to be the main focus of the Qatar government, should the nascent and experienced entrepreneurs decide to shift towards complete entrepreneurial activities. With the investigation of factors linked to both entrepreneurial intention and social identity in this study, the government is actually provided with baseline data to serve as a basis for providing business opportunities for those who express entrepreneurial intention and enhance the preferred business ventures which were chosen by "*Darwinians*," "*Communitarians*", "*Missionaries*", and "*Hybrid"* social identities. Focusing on characterising the predictors of entrepreneurial intention and identifying variables which are linked with social identities unify the role of policymakers, government, business sectors and budding and experienced entrepreneurs achieve the common trajectory of Qatar towards economic sustainability. Furthermore, creating contextualize models which focus on entrepreneurial intention and social identity in Qatar serves as a nucleation point to catapult the country as an

international avenue for business start-up and attract more entrepreneurs to contribute towards economic growth.

1.4. PROBLEM STATEMENT

With a population of 2.8 million, Qatar represents a small, yet well-monetized economy (World Bank, 2020). Qatar has the highest income per capita (Kebaili et al., 2015), but the ranking of the country has declined over the years. Before 1950, Qatari economy was mainly reliant upon the revenue generated from fishing, trading, and pearling. The commercial use of oil fields after exploration was first launched in 1949 after which the revenue generated from the oil export continued to rise exponentially. This was followed by the oil boom during 1970s in Qatar which became the key driver for dramatic changes in the socio-cultural and demographic status of the country (Ben Hassen, 2020).

Subsequently, the robust economic growth was witnessed which was largely mediated through investments in education, infrastructure, and health services (I. Ibrahim & Harrigan, 2012). As of today, Qatar enjoys the status of owning the largest gas reserves. The country's economy is mainly dependent upon the hydrocarbon revenue. As estimated recently in 2019, the government revenue generated from hydrocarbon was estimated at $58.8 billion which accounted for 86.2% of the total revenue of Qatar (IMF, 2019).

With the frequent fluctuation in the oil prices that has raised eyebrows globally, the economic uncertainty has incurred negative impacts on the public finance and the consumption in the oil-rich countries like Qatar (Miniaoui & Schilirò, 2017). In the wake of this emerging scenario, Qatari leaders seem to hold a consensus view that the economic diversification is the adequate response to the economic uncertainty (Baabood, 2017). The shift in focus from oil-dependent economy to knowledge-based economy started in 1995 which also led to the development to Qatar 2030 policy promising a long-term implementation of economic diversification strategy which is deemed essentially important for ensuring sustainable economic growth (Ben Hassen, 2020). As part of the economic diversification strategies, Qatar has started reforming legislative and bureaucratic framework along with the building of a comprehensive legal and economic system to attract foreign investments (El-Mefleh & Shotar, 2008).

With the recognition of the important role of entrepreneurial activity, the Qatari Government has have been taking initiatives to urge its citizens to pursue entrepreneurship (Kebaili et al., 2015). In pursuit of economic diversification strategies, several pro-entrepreneurial initiatives

were drafted to promote entrepreneurship and cultivate the start-up and growth of small and medium-sized enterprises (SMEs). These initiatives include the setting up of Qatar Development Bank (QDB), a frontrunner in providing dedicated support for the growth of entrepreneurship in Qatar and the promotion of SMEs; establishment of Center for Entrepreneurship (CFE) in 2013 – an initiative by Qatar University; launch of Qatar Business Incubation Centre (QBIC) - one of the leading regional incubator facilities providing financial aid, training, mentorship and other facilities for the development of entrepreneurship; and Tech Venture Fund for start-up financing in addition to numerous policies for women empowerment. Simultaneously, organizations such as Silatech and Qatar Science & Technology Park (QSTP) aim at inspiring and preparing the young population of Qatar to prosper in the global economy by providing them entrepreneurial support, education, and mentorship.

All these combined efforts have produced a radical change in Qatar's entrepreneurial ecosystem. The country has the highest National Entrepreneurship Context Index (NECI)[2] as ranked by the Global Entrepreneurship Monitor (GEM)[3] 2018/2019 global report (Bosma & Kelley, 2019). However, the overall Total Early-Stage Entrepreneurial Activity (TEA)[4] rate for Qatar in 2018 was only 8.52% and the nation ranked 40 out of 49 economies. Other similar economies such as Saudi Arabia, registered a TEA of 12.09% and has ranked 20th in entrepreneurship activity. United Arab Emirates (UAE), on the other hand, registered a TEA of 24.08% and ranked 24th in entrepreneurial activity.

Nonetheless, Qatar is ranked as one of the largest entrepreneurial hubs among the Gulf Cooperation Countries (Mehrez, 2019), yet the literature reports demonstrate that Qatari entrepreneurs face major obstacles in their entrepreneurial endeavours and this is consistent irrespective of the gender differences. These obstacles primarily stem from funding issues, restrictive legal conditions and social constraints in addition to challenges related to bureaucratic requirements (Mehrez, 2019). Given these strategic complications, it is crucial to

[2] *NECI is a composite index developed by Global Entrepreneurship Monitor (GEM), which is used to assess the entrepreneurial environment in an economy.*

[3] *GEM is one of the largest ongoing research projects to annually assess the national level of entrepreneurial activity in different countries.*

[4] *TEA is an important indicator used by GEM to assess the percent of adults who are about to pursue an entrepreneurial activity, and those that have started a new firm spanning not more than 42 months after the creation of the firm.*

understand entrepreneurship in Qatar and what drives an individual to pursue entrepreneurship in this country.

The dismal results in Qatar suggest that there is a need to modify the collective approach of Qatar to promote entrepreneurship amongst Qatari citizens and increase the country's TEA rate. Hence, the first problem to be addressed in this thesis is presented below.

> ***What factors influence the intention of Qatari citizens to pursue entrepreneurship?***

Typically, public sector jobs are well paid in Qatar and there is the higher living standard of Qatar's population indicated by the higher GDP. This traditional financial dependence is likely to diminish the entrepreneurial spirit among Qatar's population. Within the scholarly research, many studies have identified several factors that influence a person's perception of the potential entrepreneurial opportunities (Liñán, Santos, et al., 2011; Renko et al., 2012). Even though the need for a rise in entrepreneurship in Qatar is evident, the country still lacks a comprehensive attempt to understand the entrepreneurial intent among the population.

On the other hand, the prominent traits of an individual that are conducive for entrepreneurial mindset include perceptual factors (Begley & Boyd, 1987; Caliendo et al., 2009; Camelo-Ordaz et al., 2016; Gartner & Liao, 2012; Hansemark, 2003; Tok, 2020), motivation to launch a business start-up and ensure its sustainability (Begley & Boyd, 1987; Delgado-García et al., 2012). The significance of individual traits is emphasized when the entrepreneurial social identity is determined. Entrepreneurial social identity has been explored in several studies (Alsos et al., 2016; Fauchart & Gruber, 2011; Sieger et al., 2016) to determine the behaviour and mindset of the inexperienced or established entrepreneurs. Determining the entrepreneurial social identity of the current pool of active entrepreneurs provides a reliable framework that can be used by the government and policymakers to promote entrepreneurship while addressing the preference, appetite and perceptions of potential and experienced entrepreneurs in Qatar.

Hence the second problem addressed in this study is given below.

> ***What is the entrepreneurial social identity of entrepreneurs in Qatar? What variables are linked to each type of social identity?***

1.5. RESEARCH QUESTIONS

This thesis aims to determine the type of contextual factors influencing the entrepreneurial intention among the adults in Qatar, as emphasized in the first problem presented in the previous section. The prominent traits of an individual that are conducive for entrepreneurial mindset include self-efficacy, need for achievement, risk taking capability, role model, higher status, perceived opportunity, career choice, and media attention (Begley & Boyd, 1987; Caliendo et al., 2009; Gartner & Liao, 2012; Hansemark, 2003). On top of these psychological traits, previous research suggested that the motivation of entrepreneurs has a direct influence on their initiative to launch a start-up and its subsequent success (Delgado-García et al., 2012). Given the current entrepreneurial climate in Qatar and the need to improve the entrepreneurial activity, it is imperative to gain an insight on the intention of potential entrepreneurs. Hence, the general goal of this research is to investigate the factors which predict entrepreneurial intention amongst adults in Qatar and determine the entrepreneurial social identity of the current roster of entrepreneurs in the country. Precisely, this thesis aims to answer the following research questions:

1. **What are the sociodemographic variables and perceptual factors which predict entrepreneurial intention in Qatar?**
    a. **Which sociodemographic variables promote entrepreneurial intention?**
    b. **Which individual and socio-cultural perceptions factors promote entrepreneurial intention?**

2. **What are the entrepreneur and business firm characteristics which are linked with the social identity of entrepreneurs in Qatar?**

To the author's knowledge, there has been no previous effort to comprehensively investigate the significant predictors of entrepreneurial intention in Qatar, nor describe the variables linked with social identities unique to the country's context. The determination of explanatory variables which promote entrepreneurial intention during a time of transition towards diversified entrepreneurial opportunities has the potential to refine the existing models of entrepreneurial intention, which is appropriate for nascent entrepreneurs in Qatar. Furthermore, the resulting models guides provides a predictive nature in identifying business which are attractive for experienced entrepreneurs.

Furthermore, the characterization of factors associated with pure social identities and potential "*hybrid"* identities pave the way for increased government efforts to focus on opportunities which are preferred by the entrepreneurs in Qatar. The aforementioned rationale, therefore, unifies the interrelationship of the Qatar government with its citizens, emphasising the role of the people of Qatar to be proactive in supporting the country's economic trajectory. With these rationale in mind, this study was crafted for the purpose of presenting a contextualized and reliable business model which can aid the government and business sectors to provide a robust entrepreneurial environment for Qatar entrepreneurs with the hope of encouraging more individuals towards entrepreneurship in the coming years. Hence, this thesis aims to identify the factors which positively promote entrepreneurial intention and identify the social identity of Qatar entrepreneurs based on the social identity theory framework.

The outcomes of this thesis are expected to bridge the gap between the policy supports provided for entrepreneurship development in Qatar and the sustainability of these emerging business options. The predictors of entrepreneurial intention have been sourced out from previous literature which are utilized in other countries and are amalgamated with the theory of planned behaviour (Ajzen, 1985). influences positively on the willingness in doing entrepreneurship

1.6. RESEARCH FRAMEWORK AND APPROACHES

Entrepreneurial intention and entrepreneurial social identity are two of the most explored topics in entrepreneurial research. Most of the research on entrepreneurial intention was focused on identifying various factors which increase the willingness of a person to create a new venture. On the other hand, studies involving entrepreneurial social identity involve the profiling of entrepreneurs and classifying them into pure identities (Darwinians, Communitarians, and Missionaries) or hybrid identities (combination of pure identities). In both entrepreneurial research thrusts, the approach usually involves the utilization of behavioural theories, as entrepreneurial activity is a conscious decision is influenced by personal characteristics. The reason for investigating entrepreneurial intention and entrepreneurial social identity is driven by the need for a country-specific entrepreneurial model in Qatar, as the country has a unique entrepreneurial climate and entrepreneurial barriers, and Qatari citizens have a low commitment to enterprising (Kebaili et al., 2015).

Study 1 focused on the identification of significant predictors of entrepreneurial intention in Qatar. The predictors include sociodemographic variables and perceptual factors, which include individual perceptions, perception of the economy, and socio-cultural perceptions.

1.6.1. Study 1: Predictors of Entrepreneurial Intention

The predictors of entrepreneurial intention have been explored quite extensively in various studies. However, the hesitancy of Qatari citizens to explore entrepreneurship requires the development of an entrepreneurial model which is contextualized to the entrepreneurial climate and social environment in Qatar. The main objective of the first research addresses the question:

What are the sociodemographic variables and perceptual factors which predict entrepreneurial intention among potential and established entrepreneurs in Qatar?

The main research question of the present thesis is to what extent do individual, economic and socio-cultural perceptions predict entrepreneurial intention. To be more specific, individual perceptions include such variables as self-efficacy, need for achievement, risk-taking propensity, locus of control, and role model; economic perceptions contain perception of economy; and lastly, socio-cultural perceptions indicate status and respect, career choice, and news in public media. Furthermore, the contributing effects of age, gender, education level, and nationality need to be investigated as entrepreneurial behaviours may exhibit specificity based on country or business sector. Along with the model to be tested, the possible moderator effects of age, gender, education level and nationality are to be investigated as well.

The aim of the first research is to determine the predictors of entrepreneurial intention in Qatar by developing a predictive model inclusive of all sociodemographic variables and perceptual factors to gauge the likelihood of pursuing and sustaining entrepreneurship activities in the country. Various entrepreneurship barriers abound in in Qatar owing to the varying perceptions of individuals. Since Qatar is already in hot pursuit for economic diversification, the country's growth initiatives and development strategies are promoting the growth and sustainability of entrepreneurship for the coming years.

As mentioned earlier, Qatar has secured the first rank in the NECI based on GEM 2018/2019 global report (Bosma & Kelley, 2019). This implies that the entrepreneurial ecosystem in Qatar is generally positive. However, the entrepreneurial intention expressed by Qatari citizens fails to translate into actual entrepreneurial activities (Bosma & Kelley, 2019). Since

entrepreneurship is considered as one of the measures for economic diversification, it is the entrepreneurial environment must be made conducive for potential entrepreneurs and established entrepreneurs who wish to continue expanding their activity and encourage other individuals to be aware of entrepreneurial opportunities in the country. Policies, initiatives, and programs which aim to boost entrepreneurial activity in Qatar can produce desirable outcomes only when there is sufficient understanding on how and what encourages or discourages a potential entrepreneur for creating a firm.

In the present thesis, entrepreneurial intention in Qatar was explored by testing the influence of various predictors such as sociodemographic characteristics and perceptual factors (individual factors, perception of economy and socio-cultural factors). The data set was obtained from GEM sample from a cross-sectional survey. The responses obtained from the survey will be analysed to test the multiple hypotheses stated for the entrepreneurial intention model.

1.6.2. Study 2: Factors Associated with Entrepreneurial Social Identity

The second study focused on the characterization of the entrepreneurial social identity (social identity) of entrepreneurs in Qatar based on the underpinnings of the Social Identity Theory. Entrepreneurial social identity presumes that entrepreneurs have distinct qualities, behaviours, motivations, and decision-making strategies that guide them in ensuring business growth or successful utilization of business as a means to address community or social issues (Fauchart & Gruber, 2011; Sieger et al., 2016). The social identity of nascent and established entrepreneurs in Qatar are undocumented. There is a need to determine the classification of Qatari entrepreneurs since the economy is diversifying towards entrepreneurship to sustain economic growth.

The hydrocarbon industry remains the highest contributor to the economy of Qatar, but entrepreneurship is still encouraged in the country to diversify the economy. However, the socio-cultural characteristics, population demographics, and entrepreneurial barriers (Kebaili et al., 2015) in the country have presented challenges among expatriate residents, resulting in the failure to take advantage of the entrepreneurial opportunities which flourish in the country. Hence, policies have been developed to attract potential entrepreneurs in starting their business ventures. Hence, determining the social identity of entrepreneurs provides a basis for encouraging entrepreneurship in Qatar. The second study intends to address the following problem:

What is the social identity profile of entrepreneurs in Qatar? What entrepreneur profile and business profile are linked to the identified social identities?

The present thesis is an initial endeavour to characterize the social identity of Qatari entrepreneurs, and their preference and choice of business ventures. The data obtained support the development of a contextualized policy to promote and sustain successful entrepreneurship in Qatar.

1.7. CONTRIBUTION OF THE CURRENT THESIS

Entrepreneurship is steadily gaining prominence with its promotion as a career choice, government assistance, funding and others (Spigel, 2015), This also is evident from a massive drive for entrepreneurship which has already gained an initial momentum in Qatar. Since the entrepreneurship research largely reflects on the entrepreneurial intentions characterized with common characteristics (Chen et al., 1998; Kolvereid & Isaksen, 2006; Zhao et al., 2005), these studies can be used for devising strategies that are supported by the empirical evidence. The intention of an individual towards new venture creation cannot be merely determined based on demographic information such as age, gender, nationality and education level (Zhao et al., 2005). Therefore, this study explores how the formation of a business firm is driven by the contextual factors that shape the entrepreneurial intention of Qatari population. By determining this nexus between their entrepreneurial action and opportunity, the present study presents evidence of the policymakers should approach this phenomenon in the context of Qatar.

Given the particular objective of the current thesis that is to identify contextual factors inspiring the individuals toto perform entrepreneurial activities in Qatar, the determination of their risk-taking propensity will assist to evaluate whether they possess the desirability for entrepreneurship. The determination of what individual and contextual factors are favourable for boosting their pursuit of firm creation will be a milestone of policy shifts in the pre-existing paradigm of the entrepreneurship ecosystem in this country. Since the cognitive model will be used as a theoretical framework for predicting entrepreneurial intention will be used in this study, the determination of favourable psychological factors enhancing entrepreneurial actions among the individuals will be helpful to customise entrepreneurship growth plans accordingly.

It is expected that the findings of the current thesis will supplement the current studies available on promoting entrepreneurial intention in the context of the Gulf Cooperation Council. It is yet to be determined whether Qatari citizens possess characteristics that may potentially influence

entrepreneurial intention, and the obtained profile may be similar to other GCC countries. In any case, the socio-cultural characteristics in Qatar may suggest relevant contextual factors which interact with individual attributes that support actual entrepreneurial activity. Since this study aims to identify explanatory variables which support entrepreneurial intention within the context of the Theory of Planned Behaviour, the present thesis is likely to contribute to the literature produced on the entrepreneurship which is supported by the proposition that the contribution to existing literature is attributed with whether the study could test a theory (Colquitt & Zapata-Phelan, 2007).

The present study is also because the exploration of a model for predicting entrepreneurial intention has never been conducted in Qatar. These results can provide valuable information for all the efforts directed at planning and implementing initiatives for promoting entrepreneurship in the country. After analysing the entrepreneurial intention in Qatar, the intergroup behaviour of entrepreneurs can be further investigated. Several theories have been constructed and tested in some developed countries only (Fauchart & Gruber, 2011; Sieger, Gruber, Fauchart, & Zellweger, 2016). One such example is the social identity theory, which is yet to be tested using the entrepreneurial mindset of Qatari population.

Furthermore, the Social Identity Theory serves as a reliable framework for predicting inter-group behaviours based on perceptions about the differences in the status of the group, the stability of the differences in status, and the capacity to shift from one group to another. It would, therefore, be interesting to see how well social identity theory is capable of explaining the entrepreneurial activities of entrepreneurs in Qatar. The exploration of each identity in relation of other variables is a focal point with high managerial interest.

As emphasized in previous sections, one of the key research questions of the present thesis is to determine the contextual factors (social, economic, cultural) in the context of Qatar which influence entrepreneurial intention. After identifying the explanatory contributions of the predictors, further analysis was conducted to determine the reasons which explain why current programmes and pro-entrepreneurial activities may not produce desirable outcomes. In addition to testing validity of Theory of Planned Behaviour in predicting entrepreneurial intention in Qatar, these managerial questions will also be useful for evaluating whether the social identity theory can contextualise entrepreneurial activity in Qatar and to what extent the initiatives can address the national goal of promoting entrepreneurship. The present thesis provides empirical evidence on the interplay of significant factors which helps increase the likelihood of expressing

entrepreneurial intention. The results have high value for policymakers and academia to design entrepreneurial education which are contextualized to the current socio-cultural environment in Qatar.

For this study, a well-established survey data collected by GEM for measuring the connection between cognition, social, economic capital, and entrepreneurship was utilized to reduce data error. The limitations of the present study were be outlined with clear indications of how they influence the findings of the present thesis. For the interest of policymakers, the recommendations were presented to promote entrepreneurship in Qatar.

1.8. THESIS OUTLINE

This study discusses the entrepreneurial intention and social identity of Qatari residents, to serve as empirical evidences in designing policies which encourage entrepreneurship in Qatar. Prior to the characterization of the entrepreneurial intention and social identity, the context of entrepreneurship is presented, followed by the review of related literature. The thesis has two studies – Study 1 is focused on entrepreneurial intention and the determination of variables which increases the likelihood of expressing intention to create a new business venture, while Study 2 is focused on the determination of social identity of entrepreneurs in Qatar, their profile and business characteristics which are associated with each social identity. The next sections are divided into the methodology, results, and discussions Study 1. A separate section for methodology, results and discussions are also presented for Study 2. The conclusion, practical implications, and future research are also presented.

2. CHAPTER TWO: THE IMPORTANCE OF ENTREPRENEURSHIP TO QATAR

Entrepreneurship is generally considered as a nation's strategy to reach greater economic prospects and is widely acclaimed as a catalyst for economic growth and sustainability. This section discusses the economic profile and major sources of revenue in Qatar, and how entrepreneurship is viewed as a strategy towards economic diversification in the country. The rationale for promoting entrepreneurship in Qatar is also discussed in the current socio-cultural characteristics of the country.

2.1. WHY DOES ENTREPRENEURSHIP MATTER FOR QATAR?

Qatar is a smaller country covering an area of 11,437 km square and is located in the Persian Gulf. Since 1971 when Qatar gained its independence, there have been multiple achievements of socioeconomic development. The transition of Qatari economic reliance from pearling, trade and fishing to oil exports and recognition of its higher gross domestic product per capita that makes the country among the richest countries of the world is reflect of its economic journey over the few decades (Parcero & Ryan, 2017). The economy still remains heavily reliant on the reserves generated through its hydrocarbon sector despite all the economic diversification attempts in process. Provided the fact that the country is ranked as the third largest natural gas resource globally, Qatar is the largest exporter of liquified nature gas (LNG) worldwide since 2006 (The Economist Intelligence Unit, 2020).

Qatar has recorded a remarkable macroeconomic growth owing to the significant investments of the country in the oil and gas sector. This has not only produced higher financial dividends but also has been helpful to enhance the living standards of Qatari citizens consistently (I. Ibrahim & Harrigan, 2012). With the tremendous economic growth that Qatar recorded during the evolution, the country has introduced multiple welfare programs for the public including free education, healthcare, and housing.

Additionally, the country provides well-paid public sector jobs as well as compensation packages for the unemployed individuals and their dependents. These compensation packages include monthly stipends as well as financial support for their dependents to provide food, electricity, water and gas services. The population in Qatar has grown from 900,000 estimated back in 2005 to 2.7 million recorded in August 2020. However, the foreigners are larger in

number than Qatari citizens who are estimated to account for only 11% of total population (Fargues, 2011; The Economist Intelligence Unit, 2020). The majority of expatriate residents are employed for low-skilled jobs including construction, housekeeping and other non-technical services (Gardner et al., 2013).

The rapid rise in the population is driven by multiple factors which include economic growth, higher standard of living and the global economic status of the nation. However, what particularly drives the inflow of immigrants into Qatar is the drastic spike in GDP from $44.5 billion estimated back in 2005 to $183.5 billion estimated in 2019 (see **Figure** 2.1).

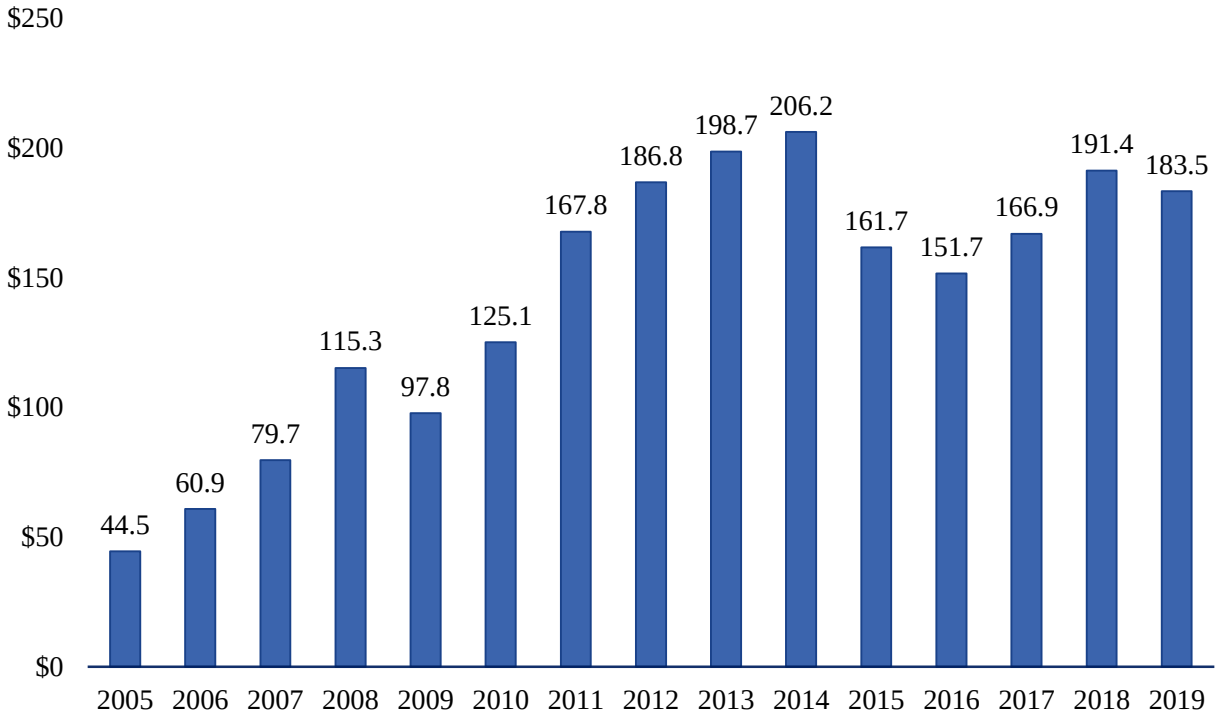

Figure 2.1. Qatar's nominal GDP ($ billion)

Source: The World Bank, WDI dataset

Since Qatari economy still is primarily supported by the hydrocarbon sector, it is not hard to believe that the major chunk of government revenues is piled up by this sector. As recorded in 2019, the government revenue generated from hydrocarbon was estimated at $50.8 billion which accounted for 86.2% of the total revenue of Qatar (see **Figure** 2.2).

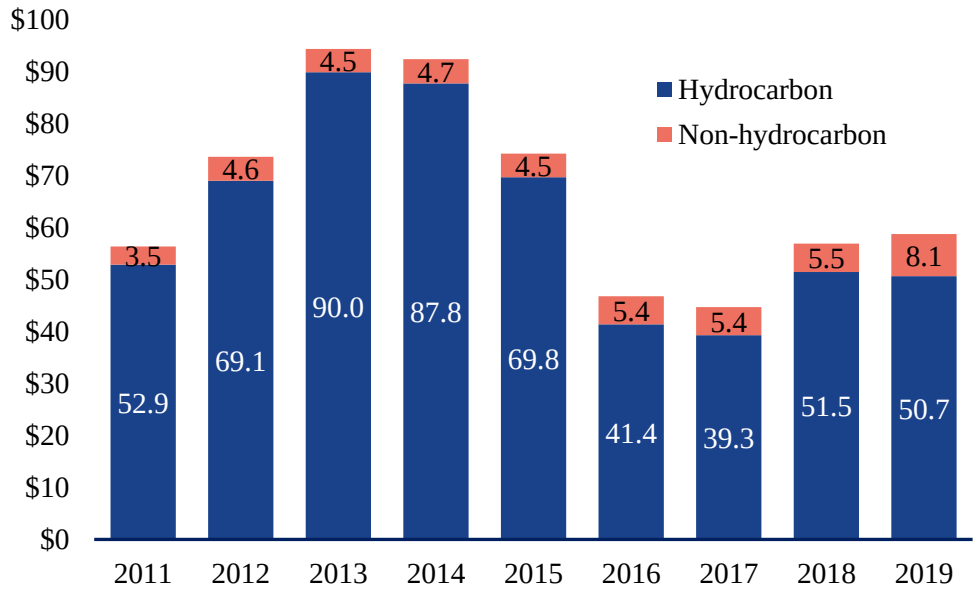

Figure 2.2. Qatar's total government revenue ($ billions)

Source: Planning and Statistics Authority

The key determinant of Qatar's economy is the exploitation of oil and gas resources that produce up to 90% of export revenues as estimated during the period between 1990 and 2018 (IMF, 2019). These export resources include oil, gas, and petrochemicals. In 2019, the export revenue generated by hydrocarbon products was estimated at $62.4 billion which accounted for 85.8% of the total goods export in Qatar (see **Figure** 2.3) compared to non-hydrocarbon products (I. Ibrahim & Harrigan, 2012). However, these export revenues are subject to extreme volatility because the drastic fluctuations in the oil prices globally result in uncertainty. Until 2014, these exports grew exponentially with no interruption because there was a steady increase in the demand for oil and gas exports.

On the contrary, the exports of other products including aluminium, plastic, detergents, and soaps were very low compared to the huge volume of exporting activities involving oil and gas products. Nonetheless the poor growth in revenue generated from non-hydrocarbon products, it is convincingly argued that there is still economic diversity demonstrated in the shape of other export products. This is yet indicative of the fact that the economic diversification in Qatar is already in process when it strives to diversify its export products portfolio. In this endeavour, Qatar can boost the export volume of non-hydrocarbon products by encouraging entrepreneurs in the country to develop businesses operating in other sectors.

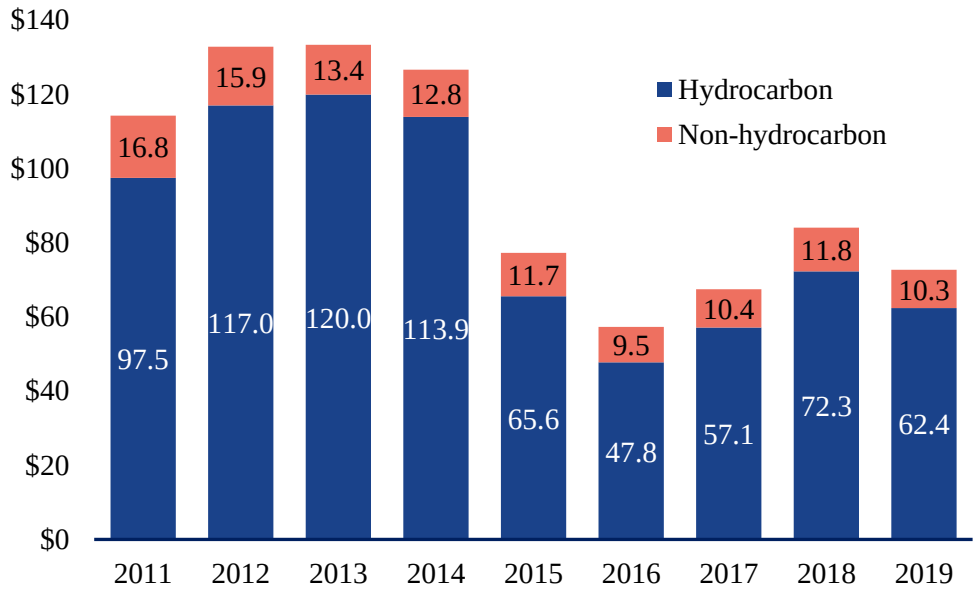

Figure 2.3. Qatar's export composition ($ billion)

Source: Planning and Statistics Authority

From the perspective of political economy, the "*resource curse*" has been the popular dogma that has been attributed frequently with the negative effects of resources wealth on the socioeconomic and political wellbeing of the societies. Followed by the debates, the United Nations Development Programme and World Bank have called for initiatives in G20 counties that can undo the impacts of the resource curse. This phenomenon has been causing depression on the social status and economic opportunities that the citizens of the counties are entitled to enjoy. Among other adversities of the resource curse, the unfair distribution of economic opportunities can create gaps in the social status of the citizens. Within the oil-rich countries like Qatar, this requires immediate attention and should be addressed through unorthodox approaches looking beyond the wealth of resources (Ross, 2015).

Arguably, entrepreneurship is imperative now to sustain the economic growth in Qatar because the number of jobs available for graduates does not correspond to the market capacity which is another source of concern for the policymakers. For instance, there were more than 3,600 students who graduated from the national and international universities while on the contrary, there were only 1,476 jobs available in both public and private sectors (see **Figure** 2.4) (Planning and Statistics Authority, 2020). This calls for a major shift in human resource management policies at the national level in Qatar. This also provides the impetus for the economic diversification across the sectors to make sure that the employment opportunities are

created to reduce unemployment and to provide the boost for the job market which is otherwise limited given the scope of the energy sector labour market.

It is also the need of the hour to ensure that sustainable employment opportunities are created out of the hydrocarbon sector which should streamline the bulk of the population finding employment opportunities. This can be achieved through the implementation of a policy that can create opportunities rather to produce artificially constructing jobs with diversion of rents to a larger public sector or by subsidizing the redundant labour in state-owned firms (General Secretariat for Development Planning, 2008).

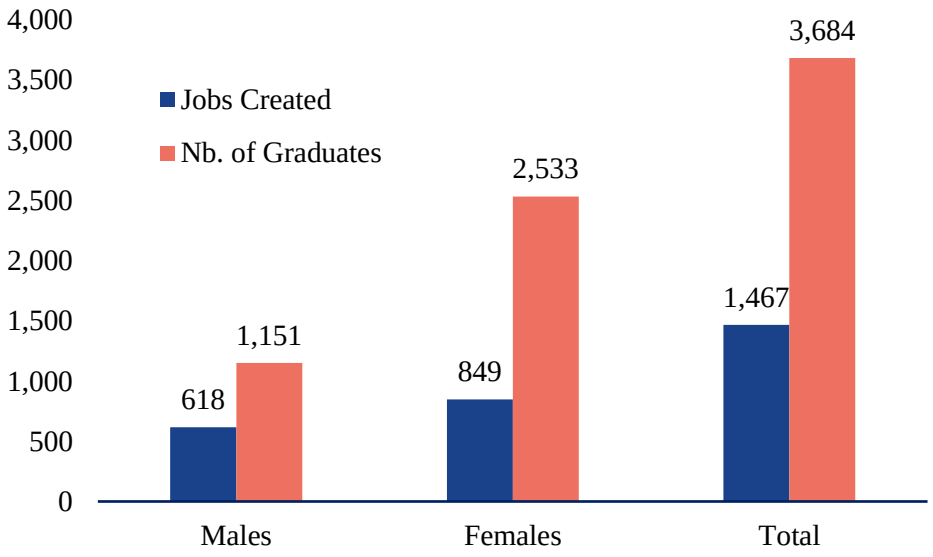

Figure 2.4. Qatar's number of jobs created vs number of graduates, 2018/2019

Source: Planning and Statistics Authority

The combined effect of oil economy vulnerability and fewer job opportunities in the public sector has put strengthened the need for economic diversification across the oil-rich countries including Qatar. The inclining trend of unemployment within GCC (Gulf Cooperation Council) countries not only poses challenges for social cohesion but also highlights the structural flaws within the economic paradigms (Forstenlechner & Rutledge, 2010). Owing to changing trends of the human resource management in Gulf region, the regulation and motivation have been found more relevant to diversify the job opportunities across public and private sectors (Forstenlechner et al., 2011).

It is also argued that the demand for oil and gas resources may shrink further in the future due to changing circumstances globally which is yet another evidence of why the shift to non-oil

and gas products is critical to respond to modern challenges. Reliance on a single resource may put the oil economies into further fragility if there is no policy shift in these countries. For the same reason, the challenges faced by GCC including Qatar are unprecedented owing to uncertainty overtaking the commercial landscape globally (Qatar Development Bank, 2017).

Keeping in line with these strategic shifts, Qatar is compliant with the changing dynamics and is, therefore, pursuing the initiatives set in the direction of economic diversification. This also results in a focused strategy of Qatari government with an ultimate aim of achieving economic diversification so that the losses incurred by the fluctuation in the oil prices can be addressed with gains in non-oil economic revenue generation.

Developed over a period of five years between 2003 and 2008, QNV holds the central value in the policy shift of Qatari government which remains committed to the socio-economic development of the public through the initiatives launched for this purpose. This document primarily is focused on pushing forward Qatari economy by devising strategies to address the gaps in human and natural resources (General Secretariat for Development Planning, 2008). In this regard, this policy document provides a framework for highlighting the development goals of Qatari government and thereby, underscores all the policies and reforms that the country aims to implement. It is also the roadmap that can be used by the private sector for the development goals and realizing the vision into reality (Gray, 2013). There are four development milestones included in QNV including human, social, economic, and environmental development. This document has also received wider attention because this has

been viewed as the blueprint of Qatari bid for achieving economic diversification (see

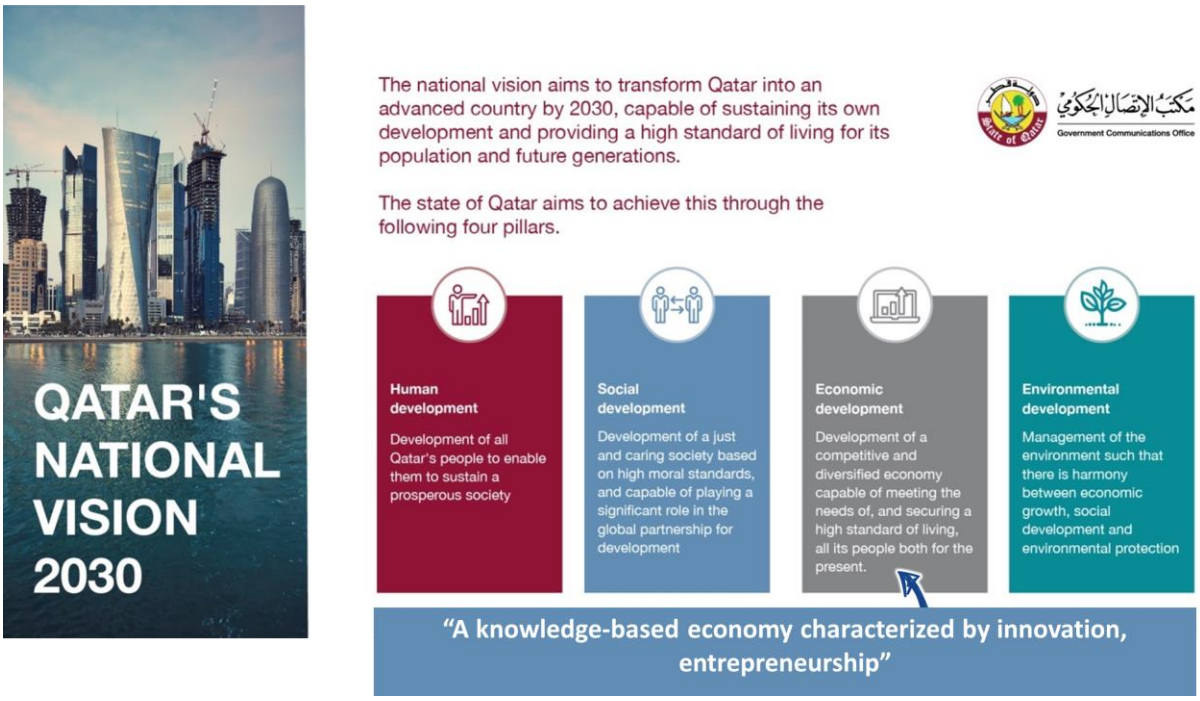

Figure 2.5).

With their developed incubation centres, programs, and accelerators to institutionalize entrepreneurial spirit in Qatar, the country has largely campaigned and encouraged to develop entrepreneurial intentions among the youth by offering them incentives and financial and technical support needed to start new ventures. Among other initiatives mentioned, Enterprise Qatar has surfaced as a one-stop development agency that aims to provide local business support with technical information and financial support defined for such businesses. It is hard not to highlight the crucial role of QDB which occupies the central stage in business activities. This bank offers multiple packages and benefits along with financial support for assisting local SMEs which ultimately is the core value of their initiatives supporting entrepreneurship.

Figure 2.5. Qatar National Vision 2030 pillars

Source: Government Communications Office, Council of Ministers

In the light of the above discussions, it can be conveniently gleaned that entrepreneurship in Qatar is the step forward to economic diversification. While setting short-, medium- and long-term goals of economic diversification, Qatar pursues a functional diversification strategy that remains fundamental to economic development at both national and regional levels. This ambitious plan can only be successful if Qatar emerges as a transformative state. The 2017 blockade against Qatar is a stark reminder of why Qatar needed a diversified economy today more than before (Tok, 2018).

While campaigning for entrepreneurship in Qatar, it is noteworthy to mention that this will not only inspire the youth including students and school dropouts but will also encourage other adults who feel inspired or are already involved in the entrepreneurial activities. These initiatives will reflect on opportunities and attractions for entrepreneurship that will boost the economic growth within the country. Therefore, it is suggested that a comprehensive study on entrepreneurship will add value to education and can facilitate producing an environment conducive to this phenomenon (Tok, 2018).

Now, it is compulsory to determine the readiness among Qatari citizens for entrepreneurship. In so doing, the measurement of the entrepreneurial intention comes first before evaluating the entrepreneurial behaviour, activities, and culture. It has already been well-established in the

previous studies that entrepreneurial intentions are used to predict entrepreneurial behaviour and activities (Kautonen et al., 2015; N. F. Krueger et al., 2000). The entrepreneurial intention (EI) is also deemed to be the first step in the direction of creating a new venture (Karimi et al., 2016). For the same reason, EI has been included in this study given its importance in entrepreneurship. On the other hand, the transition to knowledge-based economy is of vital importance here since the discussion surrounds contesting the argument of switching from a hydrocarbon-dependent economy (Kaya & Tsai, 2016). Since the empirical literature lacks research particularly on entrepreneurial intention among Qatari citizens, this remains the central theme of the present thesis.

3. CHAPTER THREE: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

This chapter reviews the related literature on entrepreneurship, entrepreneurial intention, and social identity. The Theory of Planned Behaviour was explored using literatures that utilized the theory as the basis for determining explanatory variables which promote entrepreneurial intention. The Social Identity Theory is also discussed as basis for the social identity of entrepreneurs in the current entrepreneurial context. Variables linked to entrepreneurial intention and social identity are also explored and justified why they are included among the variables investigated in the context of Qatar. Lastly, the research framework of the thesis is presented.

3.1. ENTREPRENEURS AND ENTREPRENEURSHIP

Before delving into the literature review and theoretical framework, it is fundamental to understand the key characteristics of entrepreneurs. At present, no consensus definition of entrepreneurship has been accepted, but the behavioural characteristics which classify an individual as an entrepreneur has long been documented. Since the propensity towards entrepreneurship revolves around socioeconomic, behavioural, and cultural characteristics, the current views on what entrepreneurship necessitate revisiting.

Schumpeter (1947) asserts that entrepreneurs can introduce and implement ideas and do things differently using an innovative paradigm. Entrepreneurship is the process of forming something valuable through investing time and effort to achieve goals while giving due consideration to all financial, social, and psychological risks (Gartner, 1990). The process of entrepreneurship involves the start-up of new remunerative ventures or revitalization of the current entrepreneurial activity in response to identified entrepreneurial opportunities. Entrepreneurship also refers to the successful transition of an idea to actual entrepreneurial activity while implementing appropriate and contextualized actions to achieve the end goal or objective (Shane & Venkataraman, 2000).

In 1776, Adam Smith suggested a conventional reputation of an entrepreneur by emphasizing the entrepreneur's function as an "*economic agent*" who satisfies the market demand. An entrepreneur has also been characterized as an individual who develops valuable commodities through innovation in response to perceived entrepreneurial opportunities (Bolton &

Thompson, 2013). Entrepreneurs utilize technology and innovative organizational cadence to successfully grab market opportunities. Furthermore, a high risk-taking behaviour is common among entrepreneurs (Loasby, 1982), allowing a greater overview analysis of entrepreneurial trends and economic trajectory. An entrepreneur's ability to initiate and demonstrate creative thinking enables productive exploitation and utilization of the available resources for developing a practical solution to address real-life problems (Gartner, 1990).

According to Begley and Boyd (1987), "*an entrepreneur is a person who has founded his or her own enterprise".* This brings into consideration both the founder of a firm and the person who later succeeds to become the chief executive officer of the same firm. For simplicity of the concept, we adhere to the statement "*the founder is considered an entrepreneur but the successor is not*" (Begley & Boyd, 1987). Interestingly, Chad Perry et al., (1986) considers an entrepreneur to be a person who creates new business and has not bought, inherited, or merged businesses. The latter class of people is expected to lack the innovativeness and other personality traits that the former class is expected to inherit (Perry Chad, Macarthur Ross, Meredith Geoffrey, 1986).

According to Bygrave and Hofer (1992), "*An entrepreneurial event involves the creation of a new organization to pursue an opportunity*', while '*The Entrepreneurial Process involves all the functions, activities, and actions associated with the perceiving of opportunities and the creation of organizations to pursue them*" (W. Bygrave & Hofer, 1992). The entrepreneurial process has been the centre of focus for academic research and has encouraged the utilization of behavioural theories to characterize how entrepreneurs navigate through the complex vastness of entrepreneurship in an explicit economic milieu. To understand the process, all the associated aspects need to be evaluated, focusing on the personality of the entrepreneur as the main determinant.

Entrepreneurship is attributed to an individual decision to start a new venture. For campaigning entrepreneurship in any country, it is compulsory to know how an individual decides to form a new firm. The factors that affect entrepreneurial intention can vary given the context of the study. In a meta-analysis study that was conducted to compare the determinant factors of entrepreneurial intention, it was found that these determinants were different for developed and developing countries (Schlaegel & Koenig, 2014). This justifies the purpose of the present thesis when it aims to identify the determinants of entrepreneurial intention in the context of Qatar.

Entrepreneurship is an important driving force of innovation (Castaño et al., 2016) and is known to have a positive impact on job creation. The abundance of job opportunities in a specific social milieu is an essential element of a flourishing nation (Castaño et al., 2016; Henrekson, 2005, 2006; Zhao et al., 2005). It is commonly acknowledged that a developed country with higher labour costs shows a preference towards knowledge-based and innovative activities which primarily contribute to revenue generation along with the creation of employment opportunities (Audretsch et al., 2009). This type of enterprise can spur innovation and lead to the creation of business start-ups. With the rising interest to promote economic growth by maximizing resources in this era of globalization, entrepreneurship research has emerged as a focal point of academic investigations for a long time.

Based on the empirical evidence generated from earlier studies in entrepreneurial intention, an individual's propensity to start a new venture has been found associated with multiple factors such as personality and the environmental favourability for entrepreneurship (Lüthje & Franke, 2003). Since the focus of the early research has been concentrated on personality traits as primary determinants of entrepreneurial intention, earlier claims have been barraged with criticism by scholars, arguing that personality traits exhibit lower predictive power to instigate entrepreneurial intention (N. F. Krueger et al., 2000). This criticism was addressed by the subsequent researchers when they shifted their focus from focusing on personality traits to evaluating cognitive models of entrepreneurial intention. This also led to the development and application of the Theory of Planned Behaviour as a preferred theoretical framework (Schlaegel & Koenig, 2014).

Despite criticisms, other scholars have argued that personality traits are still applicable in influencing entrepreneurial intention in specific contexts (Shaver & Scott, 1992). It was endorsed in multiple studies that personality traits contribute to the determination of entrepreneurial intention (Rauch & Frese, 2007; Robert Baum et al., 2001). The relevance of the personality traits in entrepreneurial intention continued to evolve in the research. Later, personality was determined as the important factor in deriving the links between entrepreneurship and starting a new business (Zhao & Seibert, 2006). Adding further, it has also been posited that personality characteristics may influence entrepreneurial outcomes and this can be attributed with the social and motivational factors (Robert Baum et al., 2001).

It is fundamental to know what constitutes the entrepreneurial attributes which are embarked upon by drawings the distinction between the entrepreneurial intention "*to become an*

entrepreneur" and the entrepreneurial intention goal to "*become an entrepreneur after completing the studies*" should be maintained (N. F. Krueger, 2007). The entrepreneurial action is driven by the motivation and the perceived opportunities which an individual finds to meet his entrepreneurial goal. The higher motivation can result in an enhanced perception of opportunities and the increased opportunities can push individuals to develop strong motivation. Similarly, the perceived desirability, social norms, and perceived feasibility are the significant context factors that are vital for entrepreneurial actions. As far as the individual attributes are concerned, their attitude towards entrepreneurship along with self-efficacy and goals will influence their perception of opportunities and motivation (Elfving et al., 2017).

The positive factors that contribute to entrepreneurship have been undertaken extensively in previous empirical research. The risk factor was positively correlated with entrepreneurship (Mill, 1848). Subsequently, Schumpeter (1934) explicitly provided the link between the significance of personality traits of an entrepreneur and entrepreneurship. The author observed that a small fraction of people possesses character traits of an entrepreneur which makes them distinct from the non-entrepreneurial population. According to Schumpeter, an entrepreneur epitomizes a leader who is capable of overcoming ordinary constraints to set up his business venture and lead it (Beugelsdijk & Noorderhaven, 2005). Much later in 1961, McClelland asserted that an entrepreneur's need for achievement, risk-taking propensity, shouldering personal responsibility for outcomes, innovativeness form the key ingredients of a successful start-up venture (Shaver & Scott, 1992). Therefore, extensive research on personality traits has been performed to differentiate the essential traits from the non-essential ones.

However, during these studies, various limitations of the proposed theories have been unravelled and the approach itself has been challenged several times (Shaver & Scott, 1992). Initially, personality differences were neglected in psychological research during the 1970s and 1980s, since such studies yielded rather low cross-situational consistency of personality traits and rather disappointing results (Brandstätter, 1997). Even in management science and business administration, studies probing into personality trait differences were plagued with inferior theoretical and methodological quality, and inconsistent results. Literature reviews concluded that there is no evidence and at the same time, no consistent link between entrepreneurship and entrepreneurial personality traits. They also abandoned the scope for future research in this direction (Zhao et al., 2010). Much later at the end of the 1980s, there was renewed interest to pursue research on the personal characteristics of an entrepreneur (Brandstätter, 1997).

Subsequently, scholarly researchers hypothesized that the contradictory findings reported earlier which indicated the absence of any correlation between entrepreneurial traits and entrepreneurship were possibly due to the lack of postulated hypotheses and research evidence. They proposed meta-analysis to be a superior method for such studies since meta-analysis could account for artifacts such as sampling errors, poor reliability of data, etc. (Zhao et al., 2010). Additionally, it was believed that as the firm grows big with time, the entrepreneur or the owner's role diminished because the leadership was increasingly replaced by the top-level managers. However, the entrepreneur continues to perform a pivotal role in small and medium-sized enterprises (Brandstätter, 1997).

All the efforts undertaken to study the entrepreneurial process and personality traits are just focused on one critical view that entrepreneurship is a vehicle to drive economic development and innovation; and is itself a source of employment (Beugelsdijk & Noorderhaven, 2005). Expectedly, entrepreneurship is steadily gaining prominence with its promotion as a career choice, government assistance, funding, setting up of incubators and accelerators for entrepreneurial training, etc. The fact that entrepreneurs are central to the creation of new start-ups, the role of their personality traits cannot be completely overlooked (Riedo et al., 2017). However, it should be realized that personality alone does not determine successful entrepreneurship; entrepreneurial personality is one of the many factors (such as funding, organizational support, etc.) which contribute to the establishment of a business venture and successfully drive it forward.

The behavioural approach of studying entrepreneurship is based on the action of an individual. This suggests that entrepreneurs are judged based on their specific activities such as innovation, venture creation, etc. This approach has not only been used to distinguish entrepreneurs from non-entrepreneurs but also to rationalize why some people chose to become entrepreneurs while others do not; thus, indicating that the entrepreneur's personality traits have some degree of strength which is reflected in his entrepreneurial behaviour (Hansemark, 2003).

As one might expect, the entrepreneurial personality traits are of inferential value in predicting entrepreneurial intention. Several attempts by researchers and psychologists have been made to develop a comprehensive set of tools and guidelines which can assist to make a better prediction (Brandstätter, 2011; Leutner et al., 2014). Numerous efforts have been made to identify the determinants of traits that differentiate an entrepreneur from a non-entrepreneur; and the traits

that can assist people to develop entrepreneurial intention to initiate business start-ups (Gemmell et al., 2012).

The positive perception of contextual aspects including economic and socio-cultural factors can also inspire the individuals to develop a positive intention about creating a new firm (Karimi et al., 2017). The assessment of an individual of the economic costs and benefits influence his approach about the favourability of the contextual factors to pursue an entrepreneurial career (Lüthje & Franke, 2003). Entrepreneurship can only be inspired among the individuals through two major ways: firstly, their self-intention to create a new venture; secondly, the need for entrepreneurs.

This suggests that if there are entrepreneurial opportunities available, the individuals may feel inspired and motivated to take on entrepreneurship (Mota et al., 2019). This duo effect of "*necessity*" and "*opportunity*" on the entrepreneurship is characterized by personal passion and economic development (Bao et al., 2017). While the passion is the personality factor influencing entrepreneurial intentions, it also drives the individuals to pursue entrepreneurship either due to necessity or opportunity contingent upon the perception of the economy. This distinction has been explained through the lens of "*push*" and "*pull*" factors which suggest that the entrepreneurs by opportunity feel driven to start a new business for seizing a perceived economic opportunity while the entrepreneurs by necessity feel compelled to pursue entrepreneurship to avoid unemployment (Mota et al., 2019). The recognition of economic opportunity is considered as one of the significant aspects contributing to the success of an entrepreneur (Shane & Venkataraman, 2000). This connection is also put in a different way when the causal link is established between the perception of opportunities and the economic growth associated with the rise in entrepreneurship (Mota et al., 2019).

Since entrepreneurship is a social phenomenon, culture may play a essential role in influencing the entrepreneurial activities in a nation because it forms the cognitive behaviour of an individual that is consistent with the cultural values (Greet Hofstede, 2001; Liñán et al., 2013). The commonly used classification of the national culture has been described as the individualist and collectivist cultures (Greet Hofstede, 2001). However, this classification has been criticised and has been replaced with the proposition that the culture represents an average of each individual's cultural values (Schwartz, 1997). With no ambiguity left, it was drawn in a study that the supportive culture is likely to enhance the entrepreneurial potential in a country (Mueller & Thomas, 2001).

This includes favourable legislation and the political environment favourite for promoting entrepreneurship in a setting. The culture occupied the critical role in developing behavioural patterns that are considered compliant with innovation and thereby, accepting changes driven the entrepreneurial activities. Even if the individualism and collectivism are relevant in predicting the entrepreneurial potential, both aspects of culture converge on the fact that the compliance of cultural values with the entrepreneurship identity is of vital importance (Greet Hofstede, 2001). For the same reason, it is argued frequently that the entrepreneurship goals of an individual are not only inspired by the financial attractions but also the collective social goodness that he perceives can bring about with the creation of a new firm.

3.2. CONTEXTUALIZING ENTREPRENEURIAL INTENTION

The classical question of "*why some choose to be entrepreneurs and others do not*" and "*whether entrepreneurs are born or made*" (Shane & Venkataraman, 2000) is inherently indicative of the entrepreneurial intention (EI). Entrepreneurial intention refers to an individual's personal determination to pursue the planned intention of starting a new venture in a defined period (Thompson, 2009). Based on existing literature (Ajzen, 1985; Davidsson, 1995; J. Krueger, 2000), entrepreneurial intentions are the key determinants of planned behaviour and this is further endorsed when the purpose in particular is to evaluate unique and hard to analyse behaviours showing unpredictable time delays.

Since the considerable planning is required for starting the new businesses along with a defined timeframe, the intention is the key determinant to drive through all the uncertainties surrounding those decisions. The entrepreneurial process in its entirety involves a thinking process that shapes an individual's planning behaviour for a new start-up. Therefore, it is important to identify a theoretical framework that can support explaining the development of an individual's intention to be an entrepreneur in the context of Qatar.

Within the relevant research studies, the entrepreneurial intension (EI) is of primary importance in the phenomenon of firm creation and is considered to be derived from the fact that the intentions predict the planned behaviour, and this prediction is particularly very useful when the behaviour is unique, unprecedented or difficult to predict (Bird, 1988). Therefore, the entrepreneurship is associated with the planned behaviour (Bird, 1988; Katz & Gartner, 1988; Kautonen et al., 2013) for which a specific intention model serves the purpose. The intention models, therefore, can be extremely helpful in appreciating the intentions of starting a business

venture when the prediction can be explained through a pragmatic, generalized and robust framework. Provided the relationship between the intention and the planned behaviour, entrepreneurial behaviour is also deemed as one of the corresponding planned behaviours (N. F. Krueger, 2017; N. F. Krueger et al., 2000). Just like other human behaviours, the entrepreneurial behaviour is expected to be predicted through intentions (N. F. Krueger et al., 2000; Lüthje & Franke, 2003). For this reason, it has been maintained that the EI is the step forward to the holistic evolution of this process leading to starting new ventures by entrepreneurs (Karimi et al., 2016).

In a recent attempt to reconceptualise the model of entrepreneurial intention (Elfving et al., 2017), it has been construed that since the entrepreneurial action is contingent upon an individual's action (Shane, 2012), the context of their action is inspired by the available opportunities which may prove encouraging or discouraging for the individual to pursue entrepreneurial actions. This broadly reflects on the entrepreneurship by opportunity and necessity and thereby, the entrepreneurial intention is driven by the perception of a person about a particular context which he considers favourable for exploiting the available resources to produce the desired outcomes (Shane, 2012). It will be a key aspect of the present thesis to investigate whether the entrepreneurship opportunity in Qatar is perceived favourable or unfavourable by the potential entrepreneurs.

Some multiple cognitive processes and factors that are used to determine the entrepreneurial behaviour. Since this behaviour is primarily linked with their intentions to become an entrepreneur, the primary focus of the entrepreneurial cognition research therefore is on the entrepreneurial intention. Within the empirical literature, the key factors that shape the entrepreneurial intention have been explored in an exhausting manner. These factors have been identified by multiple scholars who have determined the factors that are most likely to have positive effect on the entrepreneurial intention of a person and in so doing, a broad range of psychological models have been used (Boyd & Vozikis, 1994; Chen et al., 1998; Kolvereid, 1996; N. F. Krueger, 1993, 2007; Liñán & Chen, 2009; Segal et al., 2005).

Driven by their cognition, the individuals pursue to develop the entrepreneurial behaviours that are shaped through their pre-existing entrepreneurial intentions (Ajzen, 1991; Fishbein & Ajzen, 1975; N. F. Krueger, 2007). In other words, the entrepreneurship represents a particular category of planned behaviour (Bird, 1988; Katz & Gartner, 1988) which is evaluated through the most-fit models of intention. If these intention models turn out productive for

comprehending intentions to create a new start-up, then their use as a theoretical framework would render robust and precise information required for developing the understanding about the intentions.

Entrepreneurial behaviour, when analysed through the lens of Theory of Planned Behaviour, can be determined by documenting the entrepreneurial intention of potential entrepreneurs (J. Krueger, 2000). Similar to other human behaviours, the intentions remain the best predictor of the entrepreneurial behaviour (N. F. Krueger et al., 2000; Lüthje & Franke, 2003). The decision of an individual to pursue an opportunity is derived from the entrepreneurial behaviour. However, this pursuit of an opportunity does not translate into an entrepreneurial action every time and this is where exactly the entrepreneurial intentions are at play to predict their actions (N. F. Krueger, 2007).

Given these strategic links and independence between intention and behaviour, the entrepreneurial intention (Katz & Gartner, 1988) is considered as a significant variable for determining entrepreneurship. This positive connection between an intention to start their venture and an action of entrepreneurial engagement has also been validated in the previous studies by the multiple scholars (Kautonen et al., 2013; Kolvereid & Isaksen, 2006). They have also emphasised that the entrepreneurial intent hinges upon the entrepreneurial behaviours which demonstrate varying potential of translating their intentions into actions. This further validates the consensus view of various scholars that EI is the steppingstone to comprehend the process of creating a new firm holistically (Chen et al., 1998; N. F. Krueger, 1993; Liñán & Chen, 2009; Peterman & Kennedy, 2003).

Entrepreneurship is an extensive process in which the intentions hold the central value for predicting the entrepreneurial behaviour (Ajzen, 1991; Fishbein & Ajzen, 1975; N. F. Krueger, 2007). For driving an influence to promote entrepreneurship, the success entirely depends upon the capability of a country to predict whether the target population is ready to pursue entrepreneurial activities. In the setting of Qatar, this would be equally crucial to know whether the target population responds to the government initiatives. In the previous studies, it has been found that the traits and behavioural factors could not be proven good resources for predicting the entrepreneurial behaviours (W. D. Bygrave, 1993; Shane & Venkataraman, 2000). This justifies the shift of focus in research interest investigating entrepreneurship to intentions-based model which is famously referred to as the theory of planned behaviour (Ajzen, 1985).

Entrepreneurial models that were developed based on traits and behavioural factors could hardly explain the entrepreneurial process and thereby, have largely been viewed as the "*black box*" models of limited use (Dougla, 2009). To crack these cognitive black boxes in an entrepreneurial mind, it is of no doubt that the knowledge of how intentions are formed would be crucial and is also of great value in devising strategies focused on how the entrepreneurship education can be discoursed effectively (N. F. Krueger et al., 2000).

The most commonly applied concept of entrepreneurship was presented by (Shane, 2012) who re-evaluated their definition of entrepreneurship given the changing developments in the field of empirical research which largely contested this phenomenon as the study of firm creation (Klyver et al., 2008). They have argued that entrepreneurship should not be confined only to the event of firm creation or embodiment of an entrepreneur. Rather, it should be treated as a process which involves the study of all the activities that are involved in the recognition and exploitation of opportunities and the individuals who exploit them. It has also been argued that if the definition of entrepreneurship is developed from the perspective from the firm creation only, this may involve investigating organisational arrangement while on the contrary, the definition must be holistic enough to cover all activities in this process.

There are other facets of entrepreneurial intention as well which are grouped under the environmental factors including social relations, cultural norms, economic and political scenario, and physical and institutional infrastructure (Mueller & Thomas, 2001). These environmental elements are of objective importance in evaluating the entrepreneurial intention and behaviour as well as to understand how they can influence the potential entrepreneurs' perception of their contextual settings. McClelland (1961) asserts that individuals' entrepreneurial capabilities or skills evolved since their childhood can predict the intention of firm creation. Scholars have also researched the effect of entrepreneurial capabilities on intentions for starting a new venture (Bird, 1995; Chen et al., 1998; Schmitt-Rodermund, 2004) and found that they can also demonstrate important effect on the entrepreneurial intention.

It is also argued that the availability of business information is crucial for developing an intention to create a new firm. In a classical study, it has been established that the urge to seek information is the major determinant of the entrepreneurial intention to create a new business (Sánchez, 2013). The phenomenon of information seeking is determined through evaluating the contacts that a potential entrepreneur makes with sources to retrieve information. The information gathering involves the objective evaluation of the social network that an individual

maintains. Within this paradigm, the information availability is linked with the entrepreneurial intention in a manner that the individual reaches to markets, technological solution providers and other government regulators for evaluating whether his perception is pragmatic to the ground realities and the available information. This availability of information is approached through various forums including media and social network and the individual's information seeking behaviour will be contingent upon his education (Kristiansen & Indarti, 2004).

The social networks of entrepreneurs are likely to influence their career choices and the potential of their venture's success. Within the entrepreneurship study, there is a generic agreement on the requirement that the social networks are compulsory for the entrepreneurs to survive (Huggins, 2000). These social networks are useful for entrepreneurs in reducing the financial risks and to provide swift access to valuable resources of information for making informed decisions (Greve & Salaff, 2003). These social networks play a key role in developing the entrepreneurial intention to start a new venture based on retrieved information.

An individual's intention to pursue certain behaviour is contingent upon the strength of his conviction and therefore, a strong intention will result in the performance of actions in line with his planned behaviour (Ajzen, 1991). This behaviour was pioneered in the Theory of Planned Behaviour (Ajzen, 1991) which was extended from the Theory of Reasoned Action (TRA) – a theory justifying the reasons of actions (Fishbein & Ajzen, 1975). According to the theory of planned behaviour (TPB), the human behaviour is formed through an intention for a certain action. An individual's potential to demonstrate the behaviour inspired by the intention hinges upon his attitude, perceived behavioural control, and subjective norms. The intention produces the ultimate impact upon the actual behaviour. However, the interdependence between the perceived behavioural control and the actual behaviour exists in a manner that the former can influence the latter significantly. Since there is a relationship between the perceived behavioural control and the subjective norms, this suggests that there is either direct or indirect convergence between the intention and three primary antecedents of intention are perceived behavioural control, subjective norms, and personal attitude.

However, their role in predicting the intention is subject to variances depending upon the context, scenarios, and behaviour type (Ajzen, 1991). On the other hand, TPB framework also mentions the key determinants of the entrepreneurial attitude which include personal expected values, normative beliefs, perceived outcomes of actions, personal opinion of the society, and perceived self-efficacy (Ajzen, 1991).

3.3. PREDICTIVE POTENTIAL OF THEORY OF PLANNED BEHAVIOUR

In the earlier research, the entrepreneurial intention has been conceptualised through different models which include SEE model of the "*Entrepreneurial Event*" (Shapero & Sokol, 1982) and "*Theory of Planned Behaviour*" (Ajzen, 1985). These two models are consistent with each other (N. F. Krueger et al., 2000), and applied to entrepreneurial intention research quite extensively for predicting business creation (Lüthje & Franke, 2003). In these models, the perspectives of self-efficacy and desirability of the behaviour are of vital importance. On the other hand, the perceived desirability also represents EI and is characterized by the extent of an individual's inspiration to start a new firm. The perceived feasibility denotes the perception of the personal capacity of an entrepreneur (Liñán, Santos, et al., 2011).

Based on the Theory of Planned Behaviour, human behaviour is formed through an intention for a certain action. An individual's potential to demonstrate the behaviour inspired by the intention hinges upon his personal attitude, perceived behavioural control, and subjective norms (N. F. Krueger et al., 2000). The intention produces the ultimate impact upon the actual behaviour. However, the interdependence between the perceived behavioural control and the actual behaviour exists in a manner that the former can influence the latter significantly. Since there is a relationship between the perceived behavioural control and the subjective norms, this suggests that there is either direct or indirect convergence between the intention and three primary predecessors of intention – personal attitude, perceived behavioural control, and subjective norms. However, their role in predicting the intention is subject to variances depending upon the context, scenarios, and behaviour type (Ajzen, 1991).

The perceived attitude towards the behaviour is derived from an individual's expected outcome of the desired behaviour. Within a social setting, the social group to which a person belongs remains the critical element for influencing his thinking about the outcome of the intended behaviour (Ajzen, 1991). The perceived behavioural control of an individual is derived from personal perception about the simplicity or complexity of carrying out an intended behaviour. This also is indicative of the fact that an individual's entrepreneurial intention is shaped by societal norms and values and the objective of the entrepreneur is not confined to the financial benefits only but also the goodness that they can bring for their own social groups. Since the perceptions of the individuals are largely reflective of their subjective norms and society beliefs, their planned behaviour is the outcome of their perceptions and expectations. Given the extensive scope and application of the Theory of Planned Behaviour, the theory has emerged

as one of the prominent theories that describe the human behaviour across multiple fields of study (Notani, 1998). This theory is a valuable resource for determining and evaluating entrepreneurial behaviour (Kautonen et al., 2015; N. F. Krueger et al., 2000). The determinants of intention and behaviour which are attributed in the theory of planned behaviour are exhibited below in **Figure** 3.1.

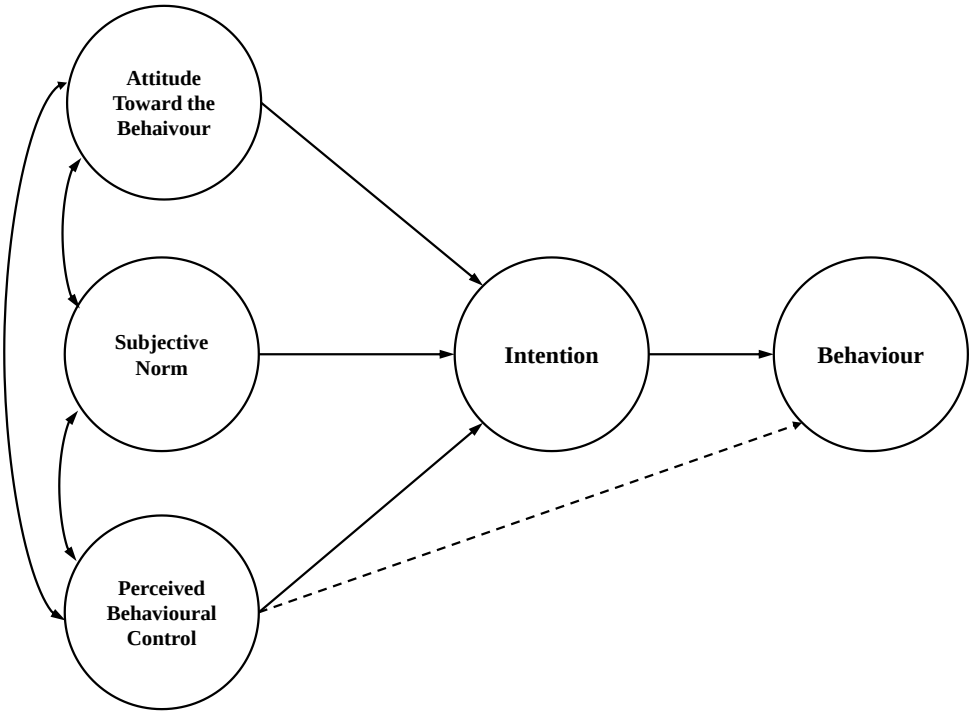

Figure 3.1. The Theory of Planned Behaviour

Source: Ajzen (1991, p. 182)

The personal attitude to start a new venture is determined through the evaluation of behaviour and whether the perceived behaviour is favourable or unfavourable for pursuing an entrepreneurial career (Ajzen, 1991). Upon evaluation of an individual's behavioural beliefs and determination of the link between the behaviour and the multiple outcomes and respective attitudes, the personal attitude is the outcome of all the cumulative results. To put it otherwise, the personal attitude of starting a new business is inclusive of all the evaluations and determinations carried out in this regard. The evaluative considerations are also included in the personal attitude (Liñán & Chen, 2009).

In contrast, the perceived subjective norms are indicative of how an individual perceives the social pressure surrounding him and to what extent it makes compulsory to act (Ajzen, 1991).

On the contrary, the perceived behavioural control is helpful in determining how an individual perceives the environment favourable for firm creation (Ajzen, 1985, 1991; Liñán & Chen, 2009). These three concepts characterised by the theory of planned behaviour refer to a person's sense of perceived ability for starting an entrepreneurial activity.

The major emphasis of the theory of planned behaviour is upon one prominent proposition that an individual's positive personal attitude points towards the greater perceived behavioural control, favourable subjective norms, and stronger intention to demonstrate a behaviour that is inspirational for starting a new business in any specific time frame (Ajzen, 1991). This is yet another endorsement of why the TPB framework is the efficient model for predicting the intention to pursue an entrepreneurial activity and thereby, evaluating the favourability of an ecosystem for the entrepreneurship.

Furthermore, it is vital to note here that person's perception of personal and social desirability along with the feasibility of entrepreneurship impacts the intention and therefore, the personal attitudes are driven by the background domain and particular elements of entrepreneurship. For the same reason, the Theory of Planned Behaviour is considered to serve as the paradigm for the development of a conceptual model in the present thesis. This conceptual model of entrepreneurial intention attempts to group behavioural, personal, social, motivational, and environmental variables for explaining entrepreneurship.

The slight modifications in the model of TPB have been introduced in the later studies to make them best suited for identifying the factors that can enhance the predictability of this theory. For instance, it was posited in a study (Ajzen, 2005) that behavioural beliefs impacted the attitude towards the behaviour. Similarly, the normative beliefs impacted the subjective norms and control beliefs impacted the perceived behavioural control. These three major factors including perceived behavioural control, personal attitude, and subjective norms demonstrate a direct influence of diverse background factors. These background factors have been listed as personal (traits, attitudes, values, emotions and intelligence), social (age, gender, ethnic, background, education, religion), and information (knowledge, experience, media exposure) factors (Ajzen, 2005). The modified TPB model is presented in **Figure** 3.2:

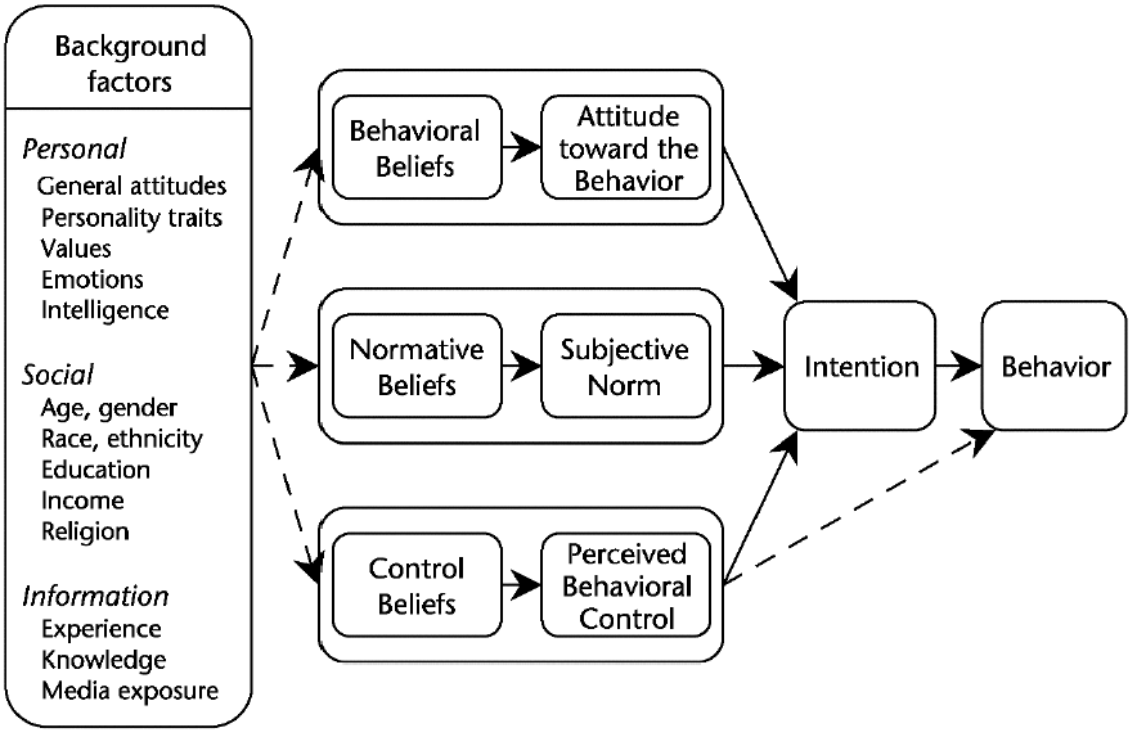

Figure 3.2. Factors impacting the predictive potential of Ajzen's Theory of Planned Behaviour

Source: Ajzen (2005, p. 135)

The TPB model contains two elements of personal attitude: affective considerations and evaluative considerations. The personal attitude is the outcome of the total effects produced by the beliefs concerning action about multiple outcomes and their further characteristics. For the same reason, it is argued that the intensity of each belief is measured through the assessment of the outcome (Ajzen, 1991). The subjective norms, on the contrary, are construed as an person's perception of the people who he may believe crucial for attaining a particular kind of behaviour. This particular behaviour is inspired by the expectation of an individual's family members, mentors, friends to see an individual assuming the role of an entrepreneur.

However, it is presumed that if an individual demonstrates a strong drive to adhere to what his group desires to see him otherwise and not as an entrepreneur, he is deemed to possess a low locus of control internally. In other words, the person with a low locus of control is considered with poor orientation of how to take an action (Ajzen, 1991; Liñán & Chen, 2009). Therefore, it was raised in relevant studies that these groups should be studied further for measuring their social influences vital to a potential entrepreneur (N. F. Krueger et al., 2000). The normative

belief along with a drive of feeling compulsive to social beliefs pressure is critical to whether a person would pursue the career of an entrepreneur or not.

Besides the external factors that influence the decision to perform entrepreneurial activities, entrepreneurship research proportionately represents the study of an entrepreneur (Delgado-García et al., 2012). Adding to this, researchers have endeavoured to measure the variation of entrepreneurial spirit among different countries to obtain an insight into entrepreneurial dynamism (Beugelsdijk & Noorderhaven, 2005). Therefore, the current thesis aims to conceptualize why the individuals pursuing the role of entrepreneurs in their life are likely to possess certain personality traits along with other personality factors including perceived economic opportunity and perceived socio-cultural favourability. The previous studies have identified those particular personality traits as the "*need for achievement*", "*locus of control*", and "*risk-taking propensity*" (Brockhaus, 1980; McClelland, 1961). These personality variables were also useful for scholars and policymakers to comprehend what makes an entrepreneur distinct from a non-entrepreneur individual (Gartner, 1989).

In an interesting development, the study performed by Blanchflower, Oswald, and Stutzer (2001) demonstrated that a considerable gap exists in every country between the population who aspire to become an entrepreneur and those who are able to realize their dream (Beugelsdijk & Noorderhaven, 2005). Owing to the evident lack of financing, a study (Blanchflower et al., 2001) attributed their research outcome to the lack of capital which holds back potential entrepreneurs from establishing their business venture. The scholars (Beugelsdijk & Noorderhaven, 2005), however, argued that the lack of venture capital is not the entire reason for the inability of aspiring entrepreneurs to start-up their ventures. In another study, (Beugelsdijk & Noorderhaven, 2005), it was found that entrepreneurs possess distinct personality traits that differentiate them from the non-entrepreneurs and salaried population. Therefore, they have emphasised that on top of external factors such as capital, personality traits of prospective entrepreneurs play a significant role in determining the intention to create a new business and its innovativeness (Beugelsdijk & Noorderhaven, 2005).

The concept of entrepreneurial personality can be a valuable resource for predicting the act of initiating a venture. This conceptualization would be helpful to determine all the personality factors that are deemed beneficial for an entrepreneur. Although personality traits are often construed as generic, yet the evidence continues to indicate that personality traits can not only be developed with experience and training but also can be modified to an extent (Korunka et

al., 2003). Personality traits such as the "*need for achievement*" and "*locus of control*" are developed over time, and the same can also change in time. Thus, it can be derived that individual character traits are subject to changes which result in the transformation of the social dynamics (Hansemark, 2003). Provided the fact that personality traits can be instilled and enhanced is another evidence of why people lacking key entrepreneurial traits still can be transformed into successful entrepreneurs. These positive personality traits can prove steppingstone for the nations like Qatar that aim to foster entrepreneurship and exploit it for socio-economic development.

Among other personality factors, it is imperative to identify the key predictors for entrepreneurial intentions and associated personality traits. This would help in identifying the key traits lacking in a person aiming to be an entrepreneur. Thereafter, customized and tailored strategies could assist individuals to develop entrepreneurial intentions and skills by improving the low-scoring personality traits to promote entrepreneurship. The perceived economic opportunity is another personality factor that has been identified as the antecedents of entrepreneurial intention (Shane & Venkataraman, 2000). The positive perception of an individual for an economic opportunity has been described as the causal link of the economic development because the economy is the key driver here that can manipulate the perception of a potential entrepreneur (Mota et al., 2019). Entrepreneurship is broadly considered as a social activity that has both cultural and economic implications. This inherently suggests that the culture can influence the outcomes of efforts that are directed towards the promotion of the entrepreneurship. This is gleaned from the fact that an individual's cognitive behaviour complies with the cultural values of the setting to which he belongs (Greet Hofstede, 2001; Liñán et al., 2013).

Furthermore, studies involving the personality traits of entrepreneurs have underscored the role of gender-based differences in personality traits in the outcome achieved. Boden and Nucci (2000) demonstrated that the personality trait differences among men and women could impact the company's survival rates. With the increasing population of women entrepreneurs, the aspiration of embracing entrepreneurship is likely to increase among women. Therefore, gender-based personality differences could also have serious implications for the entrepreneurial environment of a nation (Hansemark, 2003).

In addition to gender, other variables have been considered for the current study. These variables include age, education level, and nationality and have been considered as the control

variables in the present thesis. In a previous study, it has been argued that level of education has a positive impact on entrepreneurial intention (Crant, 1996). Within various empirical studies, the scholars have construed that the demographic background information of an individual including age, nationality as well as education level demonstrate influence for predicting the entrepreneurial intention (Ajzen, 1991; Fossen & Büttner, 2013; N. F. Krueger et al., 2000; Shinnar et al., 2012).

Entrepreneurship research typically undertakes all the behaviours which are considered relevant to entrepreneurial activities (Alsos et al., 2016). In the present study, this has been contextualized by using the social identity theory which also is the framework here to encompass all the variant behaviours that the entrepreneurs possess in creating their firms (Davidsson & Honig, 2003; Fauchart & Gruber, 2011). As mention in this theory, the business entrepreneurs are categorised as "*Darwinian*", "*Communitarian*", and "*Missionary*" (Fauchart & Gruber, 2011).

In Qatar, entrepreneurship is the avenue to achieve economic diversification. By reducing the economic dependence on the hydrocarbon sector, entrepreneurial research to uncover the barriers that restrain the success of entrepreneurship has soared higher than before. Furthermore, the failure to succeed as an entrepreneur will be expensive to society in terms of invisible opportunities and wasted resources and may also be destructive for the individual entrepreneur in terms of monetary and psychological issues.

Therefore, it is imperative to develop a robust comprehension of entrepreneurial processes and the factors that attract individuals to entrepreneurship and facilitate the success of an entrepreneur (Zhao et al., 2010) in the context of Qatar. This could help in informed decision-making and policy formulation to assist the growth and development of entrepreneurship in Qatar. By utilizing an appropriate theoretical framework, this thesis seeks to enhance this understanding, especially in the context of Qatar-based entrepreneurship.

3.4. THEORY OF PLANNED BEHAVIOUR AS A FRAMEWORK FOR PREDICTING ENTREPRENEURIAL INTENTION

In the current thesis, Ajzen's theory of planned behaviour has been chosen because this framework is deemed best suited to the research questions aiming to explore entrepreneurial intention in Qatar. The primary reason for using the Theory of Planned Behaviour is the reputation of the theory as a well-researched basis for predicting behaviour and is commonly cited as a basis of explaining decision-making strategies.

Within the empirical research, it has been established that the cognitive process directly influences an individual's decision for entrepreneurial intentions (Baron, 2004; N. F. Krueger, 2007; Mitchell et al., 2002; Shaver & Scott, 1992) and therefore, the role of perceptions remain fundamental to those identified cognitive factors underlying the entrepreneurial intention to start a new venture. These perceptions of an individual are usually driven by the key concept of socio-cultural and economic approaches.

The prominent traits of an individual that are conducive for entrepreneurial mindset include self-efficacy, need for achievement, risk-taking capability, role model, higher status, perceived opportunity, career choice, and media attention (Begley & Boyd, 1987; Caliendo et al., 2009; Gartner & Liao, 2012; Hansemark, 2003). On top of these psychological traits, previous research suggested that the motivation of entrepreneurs has a direct effect on their initiative to launch a start-up and its subsequent success (Begley & Boyd, 1987; Delgado-García et al., 2012). Given these psychological traits and their influence on entrepreneur's decision making, one main question arises:

> *Is it possible to determine the optimum mix of variables to enhance the entrepreneurial success rate among Qatari entrepreneurs?*

However, a comprehensive understanding of the intention for an entrepreneur to start a venture in Qatar is still lacking. This information would be helpful to evaluate the important financial/government initiatives along with tailored teaching/education programs that have been put in place to promote and encourage local entrepreneurs and to assist them with the support that they may require in pursuing the entrepreneurial activities. Without accurate statistical analysis of the entrepreneurial drivers, there is also an obvious risk that the current programs, policies, and initiatives are unsuccessful or are difficult to measure.

Previously, many researchers have emphasized the lack of studies on entrepreneurial intention among rentier economies. Furthermore, there is an unclear demarcation on the strengths and limitations when studying business start-up intentions (Kolvereid, 2016; N. F. Krueger et al., 2000; Souitaris et al., 2007). When contextualized to the current entrepreneurial environment in Qatar, the current entrepreneurial models seem to lack a relevant context from which government initiatives in Qatar can base on. For this reason, a comprehensive study of entrepreneurs' intention is much needed (N. F. Krueger et al., 2000) particularly in nations like Qatar which are pursuing economic diversification strategies.

The ecosystem of entrepreneurship is supported by both public and private organizations. In Qatar, the active participation of the private sector in entrepreneurial initiatives has been observed when Qatar University and Carnegie Mellon University in Qatar provided support to education initiatives focused on entrepreneurship. Similarly, multiple non-governmental organizations and other associations operating in Qatar that offers customized training sessions for the entrepreneurs and are inclusive of Qatar's entrepreneurship ecosystem. Among these organizations, Qatar Businessmen Association and Qatar Businesswomen Association remain prominent and are of vital importance in entrepreneurship education. Due to the proven efficiency of incubators and accelerators, Qatar houses quasi-private incubators like Qatar Science and Technology Park QSTP which provides support for the technology start-up enterprises while the funding is provided by the Qatar Foundation. This is a classic example of public and private partnership and illustrates how there is a constant convergence between state policies and the public interest.

Driven by the core value of Qatar's business development strategy, QSTP facilitates the new small business ventures and contributes to the growth of micro-businesses that are under the technology sector. This incubation program aims to encourage new businesses in the technology sector by providing young entrepreneurs with mentorship, training, and incubation services. On the contrary, the WISE Accelerator is focused on entrepreneurship education in Qatar. These initiatives are preceded by the goals set in Qatar National Vision (QNV) 2030 (Ben Hassen, 2020).

3.5. THEORY OF PLANNED BEHAVIOUR – A REVIEW

The current literature lacks entrepreneurship studies in the context of Qatar but the studies carried out in GCC countries investigating entrepreneurship have also used the Theory of Planned Behaviour as the framework model (Al Saiqal et al., 2018; Aloulou, 2015; Setti, 2017; Sharahiley, 2020). Since there is no substantive empirical evidence in the setting of Qatar, the present thesis may pioneer the literature for presenting findings on the entrepreneurial intentions amongst adults in Qatar. The findings of this thesis with all limitations explicitly mentioned may be a valuable resource for the policymakers to make informed decisions on how to promote entrepreneurship in the country.

For studying entrepreneurial intention, a broad range of theories have been developed and applied over time. The personality traits that are attributed commonly with an entrepreneur include "*need for achievement*", "*risk-taking propensity*", "*locus of control*", "*self-efficacy*", "*need for autonomy*", "*tolerance of ambiguity*" and so on (Begley & Boyd, 1987; Shaver & Scott, 1992). Among all the psychological attributes, it has been found that "*the need for achievement*", "*risk-taking propensity*" and "*locus of control*" are of significant value (Hansemark, 2003). In another study, it has been construed that these three prominent personality traits are attributed consistently with an entrepreneur since the researchers embarked upon investigating the entrepreneurial personality traits (Beugelsdijk & Noorderhaven, 2005). Adhering to this approach, this study intends to investigate the personality traits along with other individual perceptions including self-efficacy and role model. Other factors that influence the intention such as perception of economy and socio-cultural perceptions such as perceptions on the associations of entrepreneurship to "*high status*", "*career choice*", and "*media attention*" are also explored. This also sets the direction for the present study to pursue a focused approach for determining entrepreneurial intention in Qatar's population.

The role of sociodemographic profile and perceptual factors on entrepreneurial intention was explored by using the "*Shapero's Entrepreneurial Event*" of the entrepreneurial event (Shapero & Sokol, 1982) and Theory of Planned Behaviour (Ajzen, 1991). These two models are consistent with each other (N. F. Krueger et al., 2000) in terms of their explanatory nature to describe the roles of the chosen variables in promoting entrepreneurial intention. These models have also been applied into the entrepreneurial intention research quite extensively for predicting business creation (Lüthje & Franke, 2003).

In these models, the perception of self-efficacy and desirability of the behaviour is of great importance. On the other hand, the perceived desirability also represents EI and is characterized by the extent of an individual's inspiration to start a new firm. The perceived feasibility denotes the perception of the personal capacity of an entrepreneur (Liñán, Santos, et al., 2011). The major distinction between SEE and TPB models is drawn from the fact that SEE is centric to individuals and measures their readiness while TPB is environment-centric and encompasses the social dynamics favourable for the required behaviour. However, only Theory of Planned Behaviour model has been considered in the current thesis to investigate the entrepreneurial intention.

As mentioned earlier, the application of this theoretical framework in Qatar hardly bears any substantive empirical evidence. Yet, there are a few studies that attempted to validate the TPB model for determining entrepreneurial intention. For instance, a study conducted in Saudi Arabia used this model to determine the entrepreneurial intentions among Freshmen students with a focus on gender variable (Aloulou, 2015). In this study, it was found that the model was adequate to determine the personality behaviour for predicting the intention among the target population. Similarly, another study carried out in Saudi Arabia also applied the same theoretical framework for examining entrepreneurial intentions among university students (Sharahiley, 2020). Though this study used this model in combination with entrepreneurial event model (EEM) but still, TPB was largely effective for predicting the intentions and produced desired results. In another study, TPB was used for determining entrepreneurial intention among UAE youth and was found effective for evaluating the personality attitudes useful for anticipating their perceived behaviours (Al Saiqal et al., 2018). These studies are the endorsements and justification of using the TPB framework for the present thesis because these studies have been performed in the same region where Qatar is located.

In the previous research, the university student samples have been recruited while considering the Theory of Planned Behaviour framework across different countries. In a study (Iakovleva & Kickul, 2011), the evidence of TPB application was found in developing as well developed countries such as France, Germany, Canada, Australia, Norway, Brazil, Russia, Mexico, Romania, and Ukraine. For these countries, it was argued that there was 59% variation of intention concerning variables of personal attitude, subjective norms, and the perceived behavioural control in developed countries. While in developing countries, this variation was higher estimated at 62%.

It was also established in this thesis that the impact of confident attitudes, positive "*subjective norms*", apparent behavioural control on entrepreneurial intentions among students in developing countries were stronger compared to the influence in the developed countries. A study conducted in Ukraine, however, could not establish any link between the business students' subjective norms and entrepreneurial intention (Solesvik et al., 2012). However, this study when updated one year later corroborated with the evidence that all the TPB core antecedents in combination were found effective for predicting the entrepreneurial intentions while the setting of the sample was validated in a sample grouping business and engineering students together (Iakovleva et al., 2013).

The findings from other regions including Asia, Europe, and America helped in the evaluation of how the TPB model worked in developing and developed nations. As far as the application of TPB is concerned for other regions, mixed results have been reported regarding the validity of the theory. The primary focus of previous scholars was largely concentrated on investigating the relationship between personal factors such as personal attitude, subjective norms, perceived behavioural control and the intention to be engaged in entrepreneurial intentions and these studies were conducted in various sample groups. Predominantly, the target group of these studies were inclusive of students on their samples.

The contrary findings emerged in these studies when the positive influence of these TPB antecedents was found on entrepreneurial intentions in a research inclusive of business students (Othman & Mansor, 2012) while (N. F. Krueger et al., 2000) could not discover any substantial relationship between subjective norms and entrepreneurial intentions in a study involving a sample of engineering students.

The entrepreneurship research also includes studies that have recruited university student samples in Russia (Engle et al., 2010; Tkachev & Kolvereid, 1999), Norway (Kolvereid, 1996), and Spain (Liñán, Santos, et al., 2011; Rueda et al., 2015). In these studies, it was found that students' positive perceptions of entrepreneurship were reflected in positive entrepreneurial intentions.

It was also found that the positive beliefs of these students from different countries implied positive influence to drive them for engaging in entrepreneurial activities. Also, these students' confidence contributed positively to their learning ability for entrepreneurship and thereby, their capability of behavioural control. The study conducted in Spain by Liñán (2008) did not include

subjective norms as the determinant of the entrepreneurial intention within their model and thereby, it only demonstrates the significant impact of personal attitude, perceived behavioural control on entrepreneurial intentions.

The comparisons between the TBT characteristics were drawn by other scholars. For instance, the existence of a relationship between the subjective norms and perceived behavioural control and entrepreneurial intention was confirmed in a past study (Engle et al., 2010). Similarly, another study (Liñán & Chen, 2009) also have maintained that positive attitudes and perceived behavioural control positively affect the entrepreneurial intentions. However, no evidence of the link between favourable subjective norms and higher entrepreneurial intention was reported. This is consistent with what was found in another study (Liñán, Santos, et al., 2011) when they attempted to test the TPB application in two different Spanish settings and evaluated whether these contextual variations reflect any variance among the students for their entrepreneurial intention. Taking into consideration the significance of the subjective norms as the antecedent of the entrepreneurial intention, there were no positive impact of social perceptions could be established.

In another study, an evidence was established for the relationship between the Theory of Planned Behaviour main determinants and the entrepreneurial intention of students (Mueller & Thomas, 2001). Students from German universities exhibited a positive impact of their higher perceived behavioural on their intentions to pursue an entrepreneurial activities (Engle et al., 2010). It was also found in the same study that these students with higher entrepreneurial intentions were mediated by their positive subjective norms while their positive attitudes about entrepreneurship could not be found with any significant influence. These findings were further endorsed with an addition that the positive determinants including perceived behavioural, personal attitude, and subjective demonstrated a positive influence on their intentions among the students of the UK and France (Souitaris et al., 2007).

In a research that involved a sample of UK university students only (Wong et al., 2005), it was found that their beliefs could not be impacted significantly by others' perceptions of their decision to commence a new venture. However, this finding also suggested that there was a positive influence of subjective norms on entrepreneurial intentions. While in another study including a sample of business students (Engle et al., 2010), it was found that they demonstrated a positive influence of subjective norms and perceived behavioural control on their entrepreneurial intentions. This also suggests that the students possessing a positive attitude

towards entrepreneurship along with favourable subjective norms and higher levels of perceived behavioural control are likely to develop higher levels of entrepreneurial intentions.

Interestingly, the findings from developing countries could not reflect any significant associations between TPB determinants and entrepreneurial intention. For instance, it was found in a series of studies (Engle et al., 2010; Liñán & Chen, 2009) that there was insufficient evidence to establish the link between personal attitude and entrepreneurial intention in some developing countries. Similarly, no link was also found between the subjective norms and entrepreneurial intention in Poland, Iran, and Taiwan. Also, no relationship could be identified between perceived behavioural control and entrepreneurial intention in Ghana and Costa Rica. These studies therefore could not succeed to corroborate these links.

In a study conducted in China, (Sizong Wu & Wu, 2008), it was found that the students reflecting positive perceptions of entrepreneurship were likely to create entrepreneurial intentions. These positive reflections included their consideration of entrepreneurship as a favourable career choice. A positive influence of social networks supporting the decision to pursue entrepreneurial activities, and a positive personal control for initiating the entrepreneurial activities are also found out. In a sharp contrast to the findings of this study, another study involving business students could not validate any link between the personal attitude and the entrepreneurial intention and neither the association between the perceived behavioural control and entrepreneurial intentions could be explored (Engle et al., 2010). However, a study conducted in Finland (Engle et al., 2010) provided another evidence endorsing the positive relationship between the students' attitude and perceived behavioural control and their entrepreneurial intentions. Over-all, it is recognized that a higher volition towards entrepreneurship will predict the likelihood of engaging in actual entrepreneurial activity (Nyock Ilouga et al., 2014).

The significance of the relationship between the subjective norms and students' entrepreneurial intentions was indicated in a study that involved a business student sample (Engle et al., 2010). On the other hand, the same relationship was construed as insignificant in another study (Wong et al., 2005). In the context of Sweden, the earlier studies demonstrated that an individual's positive perception about entrepreneurship resulted in their higher entrepreneurial intentions. However, this positive correlation was not found for subjective norms and perceived behavioural control. These contradictory findings continued to emerge in multiple contexts. For

instance, a study (Wong et al., 2005) found that the higher levels of students' perceived behavioural control would impart a positive influence on their entrepreneurial intentions.

But the same positive relationship did not exist for the students' favourable subjective norms. The exact opposite of these findings were found in another study (Engle et al., 2010). From the pieces of evidences drawn in the USA context, students who demonstrated higher level of confidence to perform and control entrepreneurial behaviours along with favourable perceptions for engaging in entrepreneurial activities were observed to exhibit entrepreneurial intentions (Wong et al., 2005). However, the relationship between subjective norms and entrepreneurial intentions was not found significant in the same study.

On the basis of these contradicting findings, it can be argued that the selection of Qatar is justified because it is presumed that the sample included in the present thesis is expected to demonstrate varying results for each of TPB determinants namely personal perceptions, perceived behavioural control, and subjective norms. Despite all the variations illustrated in the studies discussed above for the reference, the application of TPB as a framework for predicting entrepreneurial intentions was nowhere found to be inadequate.

Since Qatar is uniquely positioned due to its social and cultural attitudes (Greet Hofstede, 2001) when it is ranked higher for "*power distance*"[5], it would be interesting to investigate how and why the potential entrepreneurs in this country feel influenced by the perceived opportunity to start a new business (Gartner, 1990). The theory of planned behaviour (Ajzen, 1991) is identified as the most pervasive, robust, widely used and approach in the study of entrepreneurial intentions (Kautonen et al., 2015; Kolvereid, 1996; N. F. Krueger et al., 2000).

Thus, the Theory of Planned Behaviour was selected as theoretical framework in my thesis. While the contextual factors develop the individuals' perceptions about the opportunity, the key determinants of the entrepreneurial attitude which include personal expected values, normative beliefs, perceived outcomes of actions, personal opinion of the society, and perceived self-efficacy (Ajzen, 2005). For the purpose of this thesis, TPB antecedents that will be considered for studying the entrepreneurial intention in Qatar include self-efficacy, need for achievement, risk-taking propensity, role model, higher status, perceived opportunity, career choice, and

[5] *This dimension deals with the fact that all individuals in societies are not equal – it expresses the attitude of the culture towards these inequalities amongst us. Power Distance is defined as the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally.*

media attention (Begley & Boyd, 1987; Caliendo et al., 2009; Gartner & Liao, 2012; Hansemark, 2003).

3.6. SOCIODEMOGRAPHIC PROFILE AND PERCEPTUAL FACTORS TO ENTREPRENEURIAL INTENTION

In this section, the role of sociodemographic profile and perceptual factors to the prediction of entrepreneurial intention are explored based on existing literature. The hypotheses are also presented in relation to the presented evidence, in accordance with the Theory of Planned Behaviour. First, let us review the behavioural aspects of entrepreneurial intention.

It is well recognized that intentions predict a planned behaviour, and the utility of the prediction is particularly high when the behaviour is unique, unprecedented or difficult to predict (Bird, 1988). In entrepreneurship, it is asserted that entrepreneurial intention is an important antecedent. The relationship between the intention and the planned behaviour is straightforward. It has been reported that entrepreneurial intention is by self-confidence (Bacq & Janssen, 2011) and perception of perceived structural support of an ecosystem (Gartner & Liao, 2012). Favourable perceptions about the impact of entrepreneurship also promote entrepreneurial intention. Since entrepreneurial intention is largely behavioural in nature, the Theory of Planned Behaviour is an appropriate construct to be utilized. It is argued that several sociodemographic characteristics and perceptual factors influence entrepreneurial intention.

3.6.1. Role of Sociodemographic Profile to Entrepreneurial Intention

In the past, many researchers have construed that demographic data such as age, gender, educational background and nationality are likely to influence the entrepreneurial intention (Ajzen, 1991; Fossen & Büttner, 2013; N. F. Krueger et al., 2000; Shinnar et al., 2012). Within the entrepreneurial intention models, it has been emphasised that these demographic variables are attributed with their personal attitudes and behaviours for performing entrepreneurial activities (Uhlaner & Thurik, 2007). In my thesis I have selected age, gender, education level and nationality as control variables.

The association between the demographic characteristics and entrepreneurial intention is derived from the population growth, macroeconomic conditions and the space for innovation because this link provides the strategic impact on the entrepreneurial activities with the status quo in any country (Lévesque & Minniti, 2011). However, the exact mechanism of the impacts that these demographic variables produce on the entrepreneurial intention could not be

explained because the countries with similar demographic background demonstrate varying rates of entrepreneurship. Similarly, the role of technology has become crucial for the countries fast implementing because this has provided impetus for the changes in the workplaces and therefore, the individual's entrepreneurial intention in engaging activities grow inspired by their personal interests and choices (Lévesque & Minniti, 2011). This also justifies the objective of this thesis to explore whether the demographic information of Qatari citizens influence their intention to create a firm.

3.6.1.1. Entrepreneur's Gender

It has been indicated in the previous research studies that the men have higher rate of becoming an entrepreneur than women which is reflected in their double strength to females entrepreneurs (De Bruin et al., 2007; Gupta et al., 2009). This tends to suggest that men would demonstrate higher entrepreneurial intention than women (Gupta et al., 2009). In the multiple studies, these gender differences have been explored in relation to their entrepreneurial intention. For instance, it has been revealed in a study (Shinnar et al., 2012) that the gender influences the cultural and perceptual barriers. However, it is also acknowledged the explanatory variables for entrepreneurial intention may also display disparities between male and females (Nikou et al., 2019) (due to country-specific socio-cultural contexts.

As stated in to GEM (2010), the ratios of business-owners vary across different countries depending upon their cultural orientations. For instance, it was found in the Middle East and North Africa (MENA) region that businesses were more owned by men than the women but on the contrary, women business owner dominated men in are considerably developing economies such as Ghana. It has been emphasised by (Verheul & Van Mil, 2011) that women and men have varying preferences for business types and they also demonstrate distinct management styles.

This gender-based distinction is associated with their varying motivations, time commitment, and satisfaction variation may be accredited to difference in motivations, satisfaction, and time commitment (Verheul & Van Mil, 2011). This distinction is also drawn from the differences in barriers that both genders may experience in their entrepreneurship path. For instance, it is argued that women are likely to face more challenges associated with entrepreneurship than men. These challenges typically include financing, cultural challenges, and expectations (Cooper & Artz, 1995).

In a study (DeTienne & Chandler, 2007) where the impact of gender was determined on the opportunity recognition, it was found that both the men and women demonstrated varying approaches to opportunity identification process which was based on their distinct knowledge bases. However, no marginal variance could be detected for innovation among both genders.

In another study, the findings suggest that there is a relationship existing between the gender and the entrepreneurial intention (Gupta et al., 2009). In this study, the authors revealed that this variance in gender may demonstrate different motivations for the entrepreneurship. This motivation is defined by the women's preference for employment over self-employment due to their work-life balance perceptions while the men seek more autonomy and financial growth. It has also been held that the lower entrepreneurial intention among the women is indicative of societal structures that are mostly masculine in nature. Also, this study argues that the masculine characteristics result in reduced financial support for women which circumvent their potential for entrepreneurship.

The effect of gender on entrepreneurial intention has been explored in multiple countries. It has been established in a previous study (Mazzarol et al., 1999) that the new businesses are more founded by men than women. This is further endorsed in another study conducted in a Scandinavian country when (Kolvereid, 1996) posited that males demonstrate higher entrepreneurial intention than women. While a decade before, it was found in the Scandinavian context that women contributed 20% of total new firm creations compared to men. Despite the fact that the age is not deemed as an important predictor of firm creation, still it has been indicated in the Western countries that the individuals aging between 25 and 44 years demonstrate highest activity in their entrepreneurial intentions (Sternberg & Wennekers, 2005).

This age variation has been determined in other contexts. For instance, it has been found in a study that the younger entrepreneurs are more successful than their older counterparts (Mazzarol et al., 1999). It has also been suggested in the same study that education drive the need for achievement among the potential entrepreneurs. According to (Kolvereid, 1996), the individuals with previous entrepreneurship demonstrated higher entrepreneurial intention in comparison with those who did not have any former experience. These findings may be attributed with the demographic variables of entrepreneurs, but this could not determine how the age influences these variances.

As Hanson and Blake (2009) content that gender cannot be treated in isolation when the purpose is to determine the influence on entrepreneurial intentions because gender produce combined effects in connection with race, ethnicity, age, and social identity. Considering this particular perspective, the present thesis discusses gender impacts along with nationality and age. According to the previous discussed literature, I propose the following hypothesis:

Hypothesis 1: Males have higher entrepreneurial intention than females.

3.6.1.2. Entrepreneur's Age

The relationship between age and entrepreneurship is subject to multiple contesting arguments. For some scholars, the older people may develop into better entrepreneurs than the younger ones and thereby, their ability to be engaged in an entrepreneurial activity is superior to the younger people because the older people are conceived as individuals with more knowledge, experience, skills, and financial resources (Lewis & Walker, 2013).

On the contrary, the critics of this argument hold that the business start-ups do not necessarily require experience and skills because these variables are only important in the business sustainability, not at the stage of firm creation (Gartner et al., 1999). In another study, Lewis and Walker (Lewis & Walker, 2013) argue that there are multiple concepts that require due consideration. For example, the potential entrepreneurs should have enough business experience to make their firm creation a success story. Similarly, anyone can become entrepreneur and can succeed. The old age only adds to the wisdom and knowledge, not their capability to start a new business.

Another argument emphasises that younger people hold more capability to become entrepreneur than the older ones because the job satisfaction is associated with age which in turn suggests that the younger people require more job satisfaction (Lévesque & Minniti, 2011). Therefore, the job satisfaction grows with age. This variance is linked with the older people's lower expectations, goals, and opportunities compared to higher variables existing in younger ones (Cooper & Artz, 1995).

According to (Lévesque & Minniti, 2006), it is observed that younger individuals demonstrate more pull for the firm creation than the older people. This view has been challenged by Singh and DeNoble (2003) when they have revealed that the older people switch to self-employment before they reach their retirement age which reflects their motivation for filling the gaps in the

labour market and they continue to work as an entrepreneur until the day of their retirement. The authors also contend that these older people turning to entrepreneurship are well-suited for these self-employment opportunities because their experience, savings, skills, and knowledge bring value to the public when they pass this all onto their next generations.

In the earlier research, it has been argued that an individual's preferences shape the relationship between age and entrepreneurial intention (Kautonen et al., 2014). The authors have posited that the younger people are likely to develop preferences that inspire them more than the feasibility while the older people would be more pragmatic in their choices and preferences. This in turn suggests that the age may influence people's preferences for entrepreneurship.

Based upon the argument which is developed on the assumption that there is an inverse relationship between age and entrepreneurship, it is quite probable that the people may demonstrate increased intention to start their firm until they arrive at the certain age limit for instance the late 40s, and after that, their intention of entrepreneurial activities may decrease (Lévesque & Minniti, 2006; Parker, 2018). One of the reasons for the decrease in this intention may result from their lower willingness. It is also held that the people with their aging are likely to exploit more opportunities of firm creation but on the other hands, their association with the phenomenon of entrepreneurship may decreases. The spike in opportunity is the outcome derived from the combined effects of capabilities, knowledge, skills and resources. However, the decrease in eagerness results from the time, effort, commitment, and uncertainty surrounding the nature of business start-ups.

Reflecting on the moderating effects of preference, (Kautonen et al., 2014) have argued that the relationship between the willingness and ageing is subject to variances. In other words, the people in their old age tend to demonstrate their persuasion of exploiting the entrepreneurship opportunities and approval of time spent in those activities mainly driven by their preference. In the case of tasks requiring higher commitment and risk, the motivation for the entrepreneurship starts to decrease with aging. On the contrary when the income inflow is rapid and risk is lower, the entrepreneurial activity increases with aging. And when the people are left with no other available alternatives to business start-up, the influence of age on willingness for entrepreneurship is reduced to minimum (Kautonen et al., 2014; Lévesque & Minniti, 2006). In view of that, he following hypothesis is proposed:

Hypothesis 2: Increasing age decreases an individual's entrepreneurial intention.

3.6.1.3. Entrepreneur's Education Level

In order to determine the relationship between the education level and entrepreneurial activities, several theoretical frameworks have been applied including human capital theory and signalling theory (Fossen & Büttner, 2013). The human capital theory postulates that education boosts productivity and thereby, an increase in income is expected. As far as signalling theory is concerned, it asserts that education level brings forward information about the employment market abilities, motivations, and skills which drive the impacts on the wages (Fossen & Büttner, 2013). According to (Davidsson, 1995), the people with more education are relatively more ambitious in general with higher confidence of management and stronger capability to envision growth opportunities. Brockhaus (1987) has held that education becomes the source for moderating the risk.

In previous studies, the scholars have consistently emphasised that better education warrants added value by the entrepreneurs which in turn indicates their enhanced ability to engage in entrepreneurial activities and thereby, the production is improved (Oosterbeek et al., 2010; Van Der Sluis et al., 2008). However, the influence of education hinges upon the motivation about entrepreneurship which involves both the entrepreneurship by opportunity and entrepreneurship by necessity (Fossen & Büttner, 2013). Due to stronger control attributed with opportunity entrepreneurs, it is construed that they are likely to possess higher education compared to necessity entrepreneurs (Fossen & Büttner, 2013).

Another important perspective of the relationship between the education level and entrepreneurship is derived from the postulation that since the education plays an important role for gaining knowledge and mental development required for the entrepreneurship, it is likely to influence opportunity recognition which remains the central cognitive trait in the phenomenon of firm creation Fossen et al., (2013). Stewart et al., (1999), Carland et al., (1984), and Woo et al., (1991) have commonly held that the entrepreneurs hold a significantly lower education level compared to managers.

While the opportunity recognition remains the major determinant of education level influencing entrepreneurial intention, this does not necessarily warrant success (Thompson, 2009). In a meta-analysis study, the relationship between the education level and the entrepreneurship was determined in developing and industrialised nations (Van Der Sluis et al., 2008). In this study, it was found that the higher education level produced positive influence on entrepreneurship performance.

Also, it was revealed in the same study that there was no significant evidence of the link existing between the education level and the entrepreneurship as the career choice. These conflicting findings may be explained through the variations between the motivation and the cultural differences leading to necessity and opportunity entrepreneurship (Fossen & Büttner, 2013). However, the motivation is subject to moderation with the education level and therefore, the attitude towards entrepreneurship as well as minority's perceptions of barriers may be influenced by the education level (Thompson, 2009). Educational level may exhibit a moderating effect on the entrepreneurial intention of firm creation. According to the previous discussed literature, the following hypothesis is hereby proposed:

Hypothesis 3: Higher education level promotes entrepreneurial intention.

3.6.1.4. Entrepreneur's Nationality

Social context is an important determinant of entrepreneurial intention, as various entrepreneurial environments can either promote or discourage entrepreneurial intention (Meoli et al., 2020). The socioeconomic and socio-cultural dynamics in Qatar make it a novel context for studying antecedents for actual entrepreneurship. This country has a strong dependence on expatriate workers for economic growth because they contribute massively to the economic development of the country. The population of the country has shown a tremendous rise recently when it increased from approximate 900,000 as estimated in 2005 to approximately 2.7 million by August 2020, and the population of foreigner residing in Qatar constitute 89% of the total Qatari population (The Economist Intelligence Unit, 2020). Similarly, the contribution of expatriate residents to labour represent 94.9% of the total labour force and holds 99.4% of jobs in the private sector (Planning and Statistics Authority, 2019, p. 13). With a unique sociodemographic profile, Qatar appears distinct from other countries where immigrants are in the minority. This justifies the reason for adding the nationality to the thesis because the variable may play a significant role in determining variables which promote entrepreneurial intention in Qatar.

Expatriate entrepreneurs represent the minority settled in most countries. In Qatar, immigrants relocate for job opportunities and this in no way represents their entrepreneurial goals inspiring their settlements in this country (Gould, 1994; Head & Ries, 1998). However, for the majority of foreigners temporarily living in Qatar, the job opportunities attracted them to work in the country.

A large portion of the expatriate work force are unskilled workers who are classified as "*blue collar*" workers and have low educational attainment, many of whom live in labour camps on minimum wages, employed in the construction sector since when Qatar was announced as the host location for the 2022 FIFA World Cup. In other countries, it has been found that immigrants have a higher likelihood of becoming entrepreneurs (Utterback et al., 1988). Based on the discussed premises, the following hypothesis is proposed:

Hypothesis 4: Expatriates residents have higher entrepreneurial intention compared to Qatari citizens.

3.6.2. Perceptual Factors to Entrepreneurial Intention

This section discusses the literature which links perceptual factors (individual perceptions, perception of economy, and socio-cultural perceptions) to entrepreneurial intention. The hypotheses for the proposed role of each perceptual factor are also presented.

3.6.2.1. Perception of "Self-Efficacy"

Due to the domain-specific nature of self-efficacy, this variable is the reference of evaluation here. Self-efficacy denotes the perceived ability of an individual to behave in a certain way and with the strength to overcome any challenges that he can face in the wake of any potential endeavour. This concept has been drawn from social learning theory (Bandura, 1977). This represents the cognitive self-assessment and demonstrates the ability which is required for organizing and executing certain actions; meeting expectations; managing prospective scenarios; and exerting control on the events that can happen as the outcome of their actions (Wood & Bandura, 1989). It has been revealed in a classical study that the individuals possessing a higher level of self-efficacy are more likely to pursue entrepreneurship as a good career choice rather than those with lower self-efficacy (Chen et al., 1998).

An individual's self-efficacy for entrepreneurship is referred as to an individual's confidence in performing a specific task important for entrepreneurship (Chen et al., 1998). Self-efficacy is of critical importance in the entire entrepreneurial process because the individual with entrepreneurial intention is expected to face many unprecedented challenges in his entire journey of entrepreneurship and given the odds of this uncertainty, his self-efficacy is of much help in overcoming those challenges of the ambiguous situations faced by the entrepreneur (Shane et al., 2003).

This becomes more relevant when the belief in personal ability is required to evaluate and develop the essential resources as well as to use necessary competencies for gaining certain goals in line with business management (Bandura, 1977). This belief is necessary for behavioural initiation and persistence in the wake of uncertainty and avoiding threats mitigation along with a higher set of goals. The motivation for potential entrepreneurship is also drawn from this belief of self-efficacy (Bandura, 1986). This is why it is argued that an individual's decision to b engaged in entrepreneurial activity hinges upon his evaluation of skills required for entrepreneurship (Arenius & Minniti, 2005).

Compared to managers, the entrepreneurs are associated with high personal control, motivation and are confident of achieving their goals. They are also more competent to overcome challenges. This contributes to the self-efficacy trait of entrepreneurs (Chen et al., 1998). Thus, it is logical to conclude that individuals, who are confident of performing the activities and role of an entrepreneur, are like to end up with their own start-ups (Sibin Wu et al., 2007). On a separate line, one can also conclude that people with low efficacy are likely to perceive the potential losses associated with a situation, and thus avoid taking risks. On the contrary, entrepreneurs due to their high self-efficacy are likely to perceive greater potential opportunities, despite the risks that might be associated.

Self-efficacy has been referred to as "*capacity*" in Ajzen's theory of planned behaviour (Ajzen, 1991). This capacity is derived from the confidence of any individual that he demonstrates in starting a new venture. Since this is indicative of confidence in his personal ability to carry out the entrepreneurial role, this warrants the formation of new businesses (Boyd & Vozikis, 1994; Chen et al., 1998; N. F. Krueger & Dickson, 1994). Moreover, Maurer and Tarulli (1994) added that an person's confidence in his capability for enhancing career development skills demonstrated a important impact on his intention to involve in entrepreneurial training activities.

In Shapero-Krueger's Entrepreneurial Event Model, perceptions of self-efficacy are also considered as an important contextual factor influencing entrepreneurial intentions (N. F. Krueger et al., 2000). In multiple studies, the positive relationship between individuals' perception of self-efficacy and entrepreneurial intentions has been extensively tested and is well-established (Boyd & Vozikis, 1994; Chen et al., 1998; Douglas & Fitzsimmons, 2013; Zellweger et al., 2011; Zhao et al., 2005).

The vision and self-efficacy of an entrepreneur render an effect on the goals. Similarly, goal setting and self-efficacy are positively associated with each other with certain exceptions when the set goals are too high to involve the risks (Baum & Locke, 2004). On the other hand, it has also been affirmed that the higher risks can lead to higher performance of individuals endeavouring entrepreneurship goals. Self-efficacy is viewed to be domain-specific (Bandura, 1977, 1986) because an individual is unlikely to possess higher self-efficacy in all areas. If he holds higher self-efficacy, it is quite expected that he will have lower self-efficacy in another area. An individual's self-efficacy is controlled by his locus of control because his confidence in his ability to carry out certain tasks inspired by entrepreneurial intention is derived from his belief that he can hold and control his powers amid changing scenarios (Boyd & Vozikis, 1994).

From a gender perspective, women have been reported to possess lower self-efficacy as well as lower entrepreneurial intention for those careers in particular that are untraditional (Bandura, 1977). It has also been argued that the women are less likely to enhance their career endeavours compared to men because they lack self-confidence due to a belief that they possess less abilities to match the expectations for such aspirations (Wood & Bandura, 1989). The perceived gap between the abilities of both genders usually manifests during adolescence.

Performance accomplishment was regarded to exhibit a positive correlation with self-efficacy, thereby suggesting that self-efficacy is a predictor of future performance rather than a reflection of past performance (Bandura, 1986). Self-efficacy can also be measured only for the specific tasks and no generalisation of domains could prove effective for such measurements. The predictive power is expected to deliver precise predictions of self-efficacy if the context for this evaluation is not generalised. For ensuring accurate measurement of self-efficacy, it is suggested that a conceptual framework should be developed that can include task requirements for the specific domain while treating other components as sub-domains (Chen et al., 1998).

This argument has been contested in length by (N. F. Krueger et al., 2000) when they held that self-perception is an important predictor of entrepreneurial intentions. This suggests that Individuals with higher self-efficacy are more likely to demonstrate more interest in pursuing entrepreneurial activities, and thereby, are more inclined to make efforts and show resilience against possible obstacles or challenges in the path to entrepreneurship. From the cognitive perspective, entrepreneurial self-efficacy represents the personal ability of an individual to feel motivated for developing the entrepreneurial behaviour that is determinant to overcome challenges during the process of entrepreneurship. This entrepreneurial behaviour is

characterised by the assessment of available resources, opportunity recognition, and performance improvement of the newly founded firm (Tumasjan & Braun, 2012).

Self-efficacy also defines the underlying mechanism of an individual to pursue entrepreneurship as a career choice because this choice is purposive and intentional in nature. For mediating this relationship between career choice and entrepreneurial intention, many factors are underscored while the perceived abilities of an individual for entrepreneurship are considered (Boyd & Vozikis, 1994). The central argument in literature suggests that self-perception of potential entrepreneurs influence their decision to choose entrepreneurship as a career choice (Boyd & Vozikis, 1994). It has been further added that this self-perception also represents an individual's risk aversive behaviour (N. F. Krueger & Dickson, 1994). While building on this argument further, Krueger et al., (2000) have posited that self-perception is an important predictor of entrepreneurial intentions. This in turn suggests that the individuals possessing stronger self-efficacy are more inclined to initiate entrepreneurial activities while addressing all the issues through the process with their capabilities.

Adding further, it is important to mention here that self-efficacy influences individuals' choices of activities and performance. This has been attributed by Zhao et al., (2005) when they found that self-efficacy and belief became the crucial factors to succeed in an entrepreneurial role which resulted in producing an impact on their choice of becoming entrepreneurs. In this study, they have also maintained that self-efficacy is linked with the risk-taking propensity of an individual which shapes their entrepreneurial intentions. Individuals with higher risk-taking propensity perceived themselves with enhanced capability of performing entrepreneurial activities (Zhao et al., 2005). In the event of these pieces of evidence, the following hypothesis is proposed:

Hypothesis 5: Higher perception of self-efficacy promotes entrepreneurial intention.

3.6.3. Perception of Need for Achievement

Of all the personality traits associated with an entrepreneur, the need for achievement has the longest history (Shaver & Scott, 1992). The concept of the need for achievement was developed in the 1950s, but the theory was formally introduced by McClelland in 1961. McClelland considered the need for achievement as a psychological moderator between Protestantism and economic development, a factor that laid the foundation of entrepreneurial personality research (Shaver & Scott, 1992). According to McClelland (1971), the need for achievement is an

individual desire to excel and accomplish concerning a set benchmark and to strive even further. This represents an individual's desire and inner driving force to succeed and accomplish in their career.

In other words, the need for achievement implies the prospects of doing a particular task better and quicker than others or his previous achievements. Thus, one might associate the need for achievement with entrepreneurial intentions, which makes an entrepreneur strive hard to make their ventures successful in competitive markets. Thus, people with high achieving expectations set challenging goals for them, and in the process of achieving the goal, they compete with their own standards of excellence. This represents a continuous process of improving one's own performance to propel forward (Begley & Boyd, 1987).

According to Cassidy and Lynn, factors such as work ethics, dominance, competitiveness, status aspiration, and materialism drive achievement. However, scholars thereafter have linked the need for achievement with success and high performance, which are intrinsically driven by one's own sense of success and ambition to excel, rather than external factors (Sagie & Elizur, 1999).

While this has been reported in the majority of the studies linking entrepreneurial personality with entrepreneurship, a few of them report otherwise (Begley & Boyd, 1987; Hansemark, 2003; Sagie & Elizur, 1999). Hull, Bosley, and Udell in their study reveal that the need for achievement is a weak predictor of potential entrepreneurs (Begley & Boyd, 1987). However, such results have been attributed to the lack of a systematic definition of the variable "*need for achievement*" and a reliable method for precise measurement of the construct (Sagie & Elizur, 1999).

Personality traits cannot only be learned; the desire can also be developed over time using other achievers as a reference frame (Hansemark, 2003). Therefore, the trait not only indicates an outcome but a process of achieving the outcome with thorough planning and execution of well-planned strategies (Perry Chad, Macarthur Ross, Meredith Geoffrey, 1986). Therefore, it is logical that people with a high need for achievement will most likely prefer tasks involving skills, efforts, moderate risks, and those with a system for registering clear task-related feedback. The feedback serves as a means of assessing accomplishment (Begley & Boyd, 1987). If a person excels and exhibits a behaviour which mirrors a need for achievement, the individual is expected to accomplish entrepreneurial activities well.

From the personality traits that are attributed to an entrepreneur, the need for achievement has the longest history (Shaver & Scott, 1992). It has been found that the need for achievement is a prominent trait found more in entrepreneurs than non-entrepreneurs (Begley & Boyd, 1987; Ryan et al., 2011; Sagie & Elizur, 1999; Zeffane, 2013). This represents an individual's desire and inner driving force to succeed and accomplish in their career.

The study of Hines in 1973, found out that small business owners and managers in New Zealand scored much higher on the need for achievement construct compared to engineers, accountants, middle managers, etc. Interestingly, among engineers, middle managers, and accountants, those who were actively seeking new opportunities had a higher need for achievement scores compared to the rest (Perry Chad, Macarthur Ross, Meredith Geoffrey, 1986). Thus, most studies involving successful entrepreneurs reveal their positive correlation with the need for achievement.

Individuals possessing a high need for achievement are likely to shoulder responsibilities in a business. Such individuals are often associated with innovativeness, eagerness to face uncertainties and risks through proper risk evaluation, and are also more likely to overcome the problems (Sagie & Elizur, 1999). They are self-motivated, relying on their hard efforts to influence the outcome (Sagie & Elizur, 1999). Thus, the need for achievement is strongly correlated with strategic planning and business performance (Hansemark, 2003). These characteristics set them apart from non-entrepreneurs. Since entrepreneurs are more motivated to initiate business start-ups and drive business performance than non-entrepreneurs, the need for achievement trait better differentiates an entrepreneur from a non-entrepreneur, than from a manager (Langan-Fox & Roth, 1995).

According to Robinson, Stimpson, Huefner, & Hunt (1991), entrepreneurial attitude is a key predictor of entrepreneurship. As discussed previously, entrepreneurs have a higher need for achievement than non-entrepreneurs. Therefore, it can be logically reasoned that the need for achievement would be positively correlated to an entrepreneur's attitude. Individuals with a more positive attitude towards owning responsibility and higher achievement, are more likely to adopt entrepreneurship as their career choice (Robinson et al., 1991). Interestingly, the Theory of Planned Behaviour attitude is defined as "*the individual's evaluation (favourable or unfavourable) of the target behaviour*" (Kautonen et al., 2015). It also hypothesized that attitudes of an individual are completely mediated by the intentions, and entrepreneurial intention as we know is a precursor for the entrepreneurship activity (Kautonen et al., 2015).

The variable "*need for achievement*" is one of those psychological attributes that have been found with significant influence on the entrepreneurial intention (McClelland, 1961, 1971). This psychological trait of an individual personality is driven by the urge to do better or faster than others and even from own past performance. For the same reason, this trait can be developed among the individuals by helping to draw comparisons between their current and past performance along with expected performance in the future (Hansemark, 2003).

With the rise of women entrepreneurs, focusing on gender-specific need for achievement is necessary to compare the same construct exhibited by men. This has been conceptualised through the lens of challenges that the women entrepreneurs compared to men. For instance, women entrepreneurs facing difficulties in getting financial support, challenges in family settings, and their personal experiences with entrepreneurship remain the important predictors of their need for achievement. This is likely to vary for men who may have a more favourable entrepreneurship ecosystem but this is subject to further research (Hansemark, 2003).

The career choice may influence the need for achievement among the individuals pursuing entrepreneurial activities. Earlier, it has been established that a higher level of achievement exists for those individuals pursuing entrepreneurial careers compared to those pursuing non-entrepreneurial careers (McClelland, 1971). At the same time, it has also been held that there is no sufficient evidence of whether the need for achievement demonstrates any significant impact on the entrepreneurial intention (Hansemark, 2003).

The need for achievement is underpinned by the fundamental concept that an individual sets goals to assess himself for his performance and goal accomplishment. This includes analysing his performance following a standard of performance evaluation. For the same reason, it is argued that the people with a higher need for achievement are likely to possess higher entrepreneurial intentions (Begley & Boyd, 1987). In light of the previous discussions, we propose the following hypothesis:

Hypothesis 6: Higher perception for need for achievement promotes entrepreneurial intention.

3.6.4. Perception of Risk-Taking Propensity

The term *entrepreneur*, translating to adventurer, logically implies that entrepreneurship is intricately associated with inherent risks. According to Jackson (1994), the risk-taking

propensity is associated with an individual's risk tolerance level in entrepreneurship. Individual risk tolerance level has long been associated with an entrepreneur.

The risk could be related to either start-ups or business takeovers or long-term business activities. Additionally, entrepreneurs are known to risk their careers, financial condition, family, and even reputation when initiating their start-up. An unsuccessful enterprise could result in major losses to the entrepreneur and could even jeopardize his future living. Moreover, since an entrepreneur is psychologically attached to his business venture, failure in it can have long-term emotional impact (Brockhaus, 1980). Thus, the risk could be related to personal, social, and psychological concerns.

The notion of being an entrepreneur implies that entrepreneurship is intricately associated with inherent risks. In fact, risk-taking is considered to be an essential element in entrepreneurship (J. Block et al., 2015), e.g., risk to their existing career, financial, family and even reputation. The risk could be related to either start-ups or business takeovers or long-term business activities. Entrepreneurs are known to risk their careers, financial condition, family, and even reputation when initiating their start-up.

It is obvious that the rewards and certainties in entrepreneurship are more variable compared to regular salaried employment. Therefore, only a person of high risk-taking propensity is expected to opt for entrepreneurship (Cramer et al., 2002). In fact, in their study using the variables - entrepreneurship, wealth and risk attitude, Cramer et al., (2002) found a positive correlation between entrepreneurship and risk-taking propensity. However, they reported a lack of confidence in their measured data (Cramer et al., 2002). Direct measurement of this risk-taking propensity of an individual is intrinsically difficult.

The psychological approach assumes that the risk attitude of an individual is only partially responsible for his or her entry into entrepreneurship. In addition, it considers that the extent of risk perceived in a decision widely varies from one person to another. Knowledge and experience play a critical role in determining up the perception of an individual. Thus the risk-taking propensity is also expected to vary with the educational and experience background of entrepreneurs (Caliendo et al., 2009). This implies that an entrepreneur with a high education and experience background is likely to lower the risk factor in his or her decision.

While other studies pointed to the fact, that risk-taking propensity cannot be considered as a separate variable and is usually influenced by several factors. For instance, Blanchflower and

Oswald concluded that the risk-taking propensity of an entrepreneur is positively correlated with his wealth and assets (Caliendo et al., 2009). Entrepreneurial discussions taken under risk depend upon the abilities of the decision-maker or entrepreneur. Moreover, the role of this character trait in nascent entrepreneurship[6] start-up was also found to be debatable (Caliendo et al., 2009). This is possible because although two nascent entrepreneurs might set up their enterprises at the same time, their perceived risk of failure would also depend on how informed they are about their venture and entrepreneurial environment. Thus, while the majority of the studies were conducted to find a positive correlation between entrepreneurship with a risk-taking propensity, a few differ (Ahn, 2010).

Most of the previous studies compared the risk-taking propensity among entrepreneurs, bankers, and managers, based on their assumption that all entrepreneurs belong to the same behavioural group (J. Block et al., 2015; Stewart & Roth, 2001). Furthermore, these studies assumed that the risk perception of a person remained unaltered over time, and the sample set represented entrepreneurs who have decided to opt for self-employment. This assumption has a serious limitation- it excludes entrepreneurs who have failed in their ventures (Caliendo et al., 2009).

According to Ahn (2010), individual risk propensity plays a key role in influencing the self-employment entry of the person. He reported that a rise in comparative risk tolerance from 10th to the 90th percentile resulted in an increase of 35% in the predicted probability of entry into self-employment. Subsequently, Block et al., (2015), in their study categorized entrepreneurs based on their reason for choosing entrepreneurship, i.e., opportunity-driven and necessity-driven. They found that opportunity-driven entrepreneurs have a higher risk-taking propensity than entrepreneurs who are necessity-driven. Interestingly, the third category of entrepreneurs - motivated by creativity showed higher risk tolerance than the necessity-driven entrepreneurs (J. Block et al., 2015). Analysing the variation of the risk-taking propensity among different groups can assist in mapping risk-taking propensity to their entrepreneurial success, innovativeness, etc. (J. Block et al., 2015). The impact of risk attitude on entrepreneurial survival has also been studied. It has been reported that entrepreneurs with medium risk

[6] *A nascent entrepreneur refers to a person in the process of establishing a business venture. Thus, nascent entrepreneurs could be viewed as entrepreneurs pursuing an opportunity in terms of introducing new services or products, exploring new markets, or develop more efficient production methods in a profitable manner.*

attitudes are expected to survive longer compared to their entrepreneurial ventures, compared to entrepreneurs with high or low-risk attitudes (Caliendo et al., 2010).

Additionally, entrepreneurs are associated with a higher risk-taking propensity than their managers even though both are expected to undertake risky decisions. While it is true that a manager functions in a more structured organizational setup, an entrepreneur deals with a less structured setup and uncertain possibilities (Stewart & Roth, 2001). Notably, according to Atkinson's model, "*performance level should be greatest when there is greatest uncertainty about the outcome (when subjective probability of success is .50). This prediction should be true regardless of whether the motive to achieve or the motive to avoid failure is stronger within an individual*" (Brockhaus, 1980).

In a sample representing the US population, nascent entrepreneurs were reported to demonstrate higher risk adversity than non-entrepreneurs. Such nascent entrepreneurs had a lower tendency (than the control group) to pursue business opportunities with higher variability in the outcome (Gartner & Liao, 2012). However, it has been held that the risk-taking propensity does not impact the venture creation success negatively. This also suggests that if an individual takes a higher risk while creating a new business, he is likely to demonstrate higher performance as well.

The risk-taking propensity should be treated in isolation from risk avoidance because in the latter case, the entrepreneurs have been found less adventurous than in case of risk-taking because the risk avoidance stems from their personality traits and cognitive behaviour that defines their persona to deal with any challenging scenario (Gartner & Liao, 2012). The risk-taking propensity is always different for growth-oriented and income-oriented entrepreneurs. The growth-oriented entrepreneurs are likely to take higher risks driven by their set goals and ambitious plans for their success. On contrary, the income-oriented entrepreneurs are likely to avoid risks but will still demonstrate higher propensity compared to organisational managers (Stewart & Roth, 2001).

Environmental uncertainty is the major determinant of the risk-taking propensity because it has been construed that an individual experiencing higher environmental uncertainty is likely to demonstrate a higher propensity. However, the perception about the environmental uncertainty will vary between nascent entrepreneurs and others (Gartner & Liao, 2012). Based on the above arguments, this thesis proposes the following hypothesis:

Hypothesis 7: Higher risk-taking propensity promotes entrepreneurial intention.

3.6.5. Perception of Locus of Control

Locus of control is another personality trait commonly associated with an entrepreneur. It has been one of the comprehensively studied psychological personas in entrepreneurship research (Mueller & Thomas, 2001). Locus of control as a significant construct was introduced by Rotter in 1966 (Mueller & Thomas, 2001). It is an important construct related to work satisfaction, motivation, and performance (Schjoedt & Shaver, 2012). According to Wolk and DuCette (1973, p. 60), "*a person characterised as internal (that is, with an internal locus of control) believes that his behaviour can determine what will happen to him and that he is in control of his fate. A subject who is characterised as external believes himself to be a pawn of fate with little control over those things that affect him".*

In other words, locus of control is linked to the expectation of an individual to succeed or fail in a task, and that people either attribute the reason for the outcome to themselves or the external factors which are beyond control (Asante & Affum-Osei, 2019; Hansemark, 2003). Thus, an individual viewed as an "*internal*" is likely to believe that he/she has control over the outcome based on their abilities, skills, and efforts. While an "*external*" subject believes that external factors (e.g., luck, rewards, etc.) have complete control over the outcome (Asante & Affum-Osei, 2019; Mueller & Thomas, 2001).

Locus of control represents the extent to which a person has control over his/her life. Locus of control is linked to the expectation of an individual to succeed or fail in a task. In doing so people either attribute the reason for the outcome to themselves or the external factors which is beyond control (Asante & Affum-Osei, 2019; Hansemark, 2003). An individual viewed as an internal locus of control is likely to believe that he/she has control over the outcome based on their abilities, skills, and efforts. While an external locus of control subject believes that external factors (e.g., luck, rewards, etc.) have complete control over the outcome (Mueller & Thomas, 2001). In the context of Qatar, multiple training programs can be introduced to boost self-control among the population which will ultimately improve their confidence to steer the entrepreneurial process in their favour.

Rotter's unidimensional Internal-External locus of control scale has been widely used to study organizational and managerial problems, along with cross-cultural psychological research (Kaufmann et al., 1995; Mueller & Thomas, 2001; Shaver & Scott, 1992). However, this

approach has a limitation. The method used to build the internal-external scale involved was based on sampling different situations (e.g., achievement in school, politics, etc.) without making the overall result more reliant on one situation than another. The use of different situation introduces multiple factors which are situation-dependent, and this generalizes the scale and makes it unfit to study a specific behavioural situation such as the establishment of a new start-up venture. Hence, the IE scale may not make an accurate prediction in different yet specific settings (Shaver & Scott, 1992).

Studies performed in the 1970s demonstrated a positive relationship between internal locus of control and business creation. For example, Brockhaus (1975), found that students intending to commence a business clearly display a higher locus of control than students without such intentions (Mueller & Thomas, 2001). Similarly, Pandey and Tewary (1979) found that entrepreneurs were more internal i.e., scored high on the locus of control, than control groups (Pandey and Tewary, 1979; Mueller and Thomas, 2001).

Thereafter, investigation in the 1980s yielded mixed results (Begley & Boyd, 1987; Mueller & Thomas, 2001; Schjoedt & Shaver, 2012). In fact, some studies found that entrepreneurs displayed lower locus of control compared to the undergraduate students. While others reported that the level of locus of control varied among the different types of entrepreneurs e.g., aspiring entrepreneurs had higher locus of control than established entrepreneurs (Schjoedt & Shaver, 2012). One possible reason is that most of the studies used Rotter's IE scale to assess locus of control. Since all the dimensions of Rotter's internal-external scale are not plausible predictors of locus of control, inconclusive results were obtained (Mueller & Thomas, 2001; Schjoedt & Shaver, 2012). The other reason was likely the difference in the way the types of an entrepreneur was defined in each study (Schjoedt & Shaver, 2012).

However, after the study by Rauch and Frese (2007), researchers have taken a renewed interest in measuring locus of control to study entrepreneurship activity (Schjoedt & Shaver, 2012). A multi-dimensional approach such as internal, external, control, etc., is now commonly used which shows that entrepreneurs, in general, have a higher locus of control than non-entrepreneurs (Mueller & Thomas, 2001). Interestingly, (Neider, 1987) reported that women have a higher internal locus of control compared to the general population, and the results found support from the studies performed by Hansemark (2003).

The definition of locus of control (Perry Chad, Macarthur Ross, Meredith Geoffrey, 1986), brings the key point into notice- a self-motivated person would take the initiative himself to commence a business venture, rather than wait for others to assist him in doing so. This implies that such self-motivated individuals score high on associated traits such as the need for independence, self-belief, confidence and taking initiative. It is also possible that such individuals have access to the resources that are required in setting up the venture (Mueller & Thomas, 2001). An entrepreneur intrinsically has elements of locus of control. Entrepreneurs by definition are individuals, who shoulder the responsibility of self-employment and are capable of initiating a venture, which are attributes of locus of control.

The necessity to act has been proposed as a key step to new venture creation. The propensity to act is determined by the belief in one's ability to control the outcome, through efforts and skills. This belief is like to make an individual more proactive and alert to new opportunities for venture creation (Asante & Affum-Osei, 2019); and, a person able to perceive new opportunities is likely to have entrepreneurial potential. Therefore, the propensity to act can be logically derived to be guided by the internal orientation of the locus of control. That is to say, the internal locus of control can be viewed as a necessary element for entrepreneurial action (Mueller & Thomas, 2001).

The perception of creating a new business involves both risk and one's confidence and self-belief over his/her skills and capabilities (Mueller & Thomas, 2001). Entrepreneurship is associated with risk-taking, and an individual who believes that one can control the outcome through one's skills and abilities is likely to embark upon a risky venture. Whereas a person who believes that the outcome is highly uncertain since it is beyond his control is likely to avoid such ventures. Furthermore, the perception of the risks associated with the creation of new venture and the informed decision based upon self-confidence and belief has an internal origin within an entrepreneur. Therefore, locus of control origination is also internal than external and therefore can be termed as internal locus of control.

Locus of control not only inclines and motivates towards business venture establishment, but also is rather concerned with factors that create the outcome. Individuals with high locus of control have confidence and self-belief over his/her skills and capabilities (Mueller & Thomas, 2001). They believe that it is their own act and effort that have culminated in the outcome (Asante & Affum-Osei, 2019). Therefore, individuals with high locus of control are likely to get involved in crucial functions and roles that are vital to the start-up and business operation.

Furthermore, such people are eager to expand their knowledge base and capabilities that can be used to influence the outcome. They believe on their own skills to identify opportunities instead of depending on their luck.

Since the internal locus of control is driven the personal influences and the external locus of control is influenced by external factors, the perceptions of an individual are influenced by the key behavioural decisions that bring about the outcomes from internal and external factors. The opportunity recognition is the classic case of the locus control when an opportunity may be found interesting by one individual and the other person does not perceive it beneficial (Asante & Affum-Osei, 2019). Based on the above discussion, the following hypothesis is formulated:

Hypothesis 8: Higher perception of locus of control fosters entrepreneurial intention.

3.6.6. Entrepreneur's Role Model

The role model offers real-life examples for the entrepreneurship learners. It was revealed in an earlier study that 35-65% of entrepreneurs had a role model in one or more of their parents already (Scherer et al., 1989). This suggests that they have drawn inspiration from their parent entrepreneurs and has a direct impact on their decision to pursue entrepreneurial activities. On the contrary, this does not indicate that the entrepreneurs who did not have entrepreneur parents could not score as high as 65% because their role models were drawn from other social circles (Van Auken et al., 2006). This suggests that the individuals with entrepreneurial intentions can draw inspiration from the role model not only within their families but also from other entrepreneurs either known to them personally in their social networks or through media (Scherer et al., 1991).

The role models are represented by those specific important individuals that a person draws inspiration, and can possibly engage with them for learning and seeking motivation from them about entrepreneurship (Liñán & Chen, 2009; Scherer et al., 1989). These role models have a strong impact on career choices because they help them to reach their career choice decisions (Scherer et al., 1989). According to (Scherer et al., 1989), these role models are observed informally during socialisation when their image becomes the source of learning among their followers who feel inspired by their success and takes them as an example for their own goals. This link between the role models and their influence on the learning outcomes of others is originated from the Social Learning Theory (Bandura, 1977).

The author further stated that these role models not only are the source of inspiration for the public but also share their own experiences and knowledge which become the source of learning for the people who follow them. This can be further explained by the basic premise that an individual's decision to pursue a particular career is shaped by their positive influences drawn from their role models who they feel matching with their perceived abilities and attitudes. This is primarily determined by knowing the extent to which they feel influenced by the role models (Scherer et al., 1989). However, the certain behaviour of individuals is inspired by the perceptions about the behaviours, others' opinions, personal identity and the roles they follow (Ajzen, 1991).

This is quite a common observation in our reality to see the following of successful peers while inspiring success in our life goals. Their success stories motivate us to drive through our dreams and inspirations. For the same reason, the affiliation with an entrepreneur serves to enhance an individual's perception about how they can exercise the control for realizing certain steps that are necessary for starting a new venture. This control on perception is comparatively higher in a scenario when there is no affiliation with any entrepreneur. The entrepreneurial intentions are also shaped by inspiration drawn from the role models and their entrepreneurial activity (N. F. Krueger et al., 2000). These role models also are of enormous help for making the vision clean and setting future goals.

In the previous research, it has been established that the individuals who grow up close to their entrepreneurial role models are strongly influenced to start a new venture which is the outcome of their own perceived ability about self-employment and employment (Tkachev & Kolvereid, 1999). This suggests that the individuals with entrepreneurs within their family or the role models in their social settings are more likely to develop positive influence towards engaging in entrepreneurship because this gives them the perceived capability to be engaged in entrepreneurial activities (Scherer et al., 1989). These role models can exist within the family when a close family member is a success story. They can also be present within the community of friends, peers, workplace leadership, or any other prominent person within the field of entrepreneurship (N. F. Krueger, 1993; Scherer et al., 1989).

For determining entrepreneurial intentions, the role model can have a significant influence which it can mediate through changing attitudes and beliefs. The exogenous factors that affect the relationship between the role model and the entrepreneurial intentions include perception about available resources and changes in intentions for creating a new business. It has also been

recognised that similar to strong link existing between intention and entrepreneurship, if the role model can mediate changes in attitudes and beliefs, they are likely to influence entrepreneurial intentions to same extent (N. F. Krueger et al., 2000).

Also, the role model can have crucial effect on career choices (N. F. Krueger et al., 2000). Among the positive factors that are valuable for encouraging entrepreneurship, the role model is one of the significant influencers that are likely to motivate individuals for pursuing an entrepreneurship career (Scherer et al., 1989). Just like the entrepreneurship skills can be developed, the role models offer the great learning resource for potential entrepreneurs because these role models not only persuade them to adopt a career that links their personality characteristics with the career path of their role model but also, they inspire changes in their attitudes and beliefs. In other words, the career choices are inspired by the role models who somehow relate to their personality characteristics (Van Auken et al., 2006).

With the media advertisement, the role models hold the dominant role in influencing the career choices and entrepreneurship. In the empirical studies, it has been consistently argued that there are links existing between the role models and the entrepreneurial intentions. These role models can range from famous personalities in a particular sector to any close relative or friend in the social network. For example, Steve Jobs has inspired many potential entrepreneurs to take on a technology entrepreneurship career. These role models are also the source of valuable information that can help many potential entrepreneurs to learn from their experiences (Bosma et al., 2012).

Engagement with social networks and peer groups also play a significant role in inspiring individuals to perform an entrepreneurship activity (Klyver & Hindle, 2007). This is also endorsed by the fact that the potential entrepreneurs see their parents and networks as role models for making choices and pursuing entrepreneurial activities. Another perspective of the role model has been reflected in previous studies where it was established that the role model would not be treated as an individual but rather in collectivism at regional or national levels (Mueller & Thomas, 2001).

Role models have the potential to influence the career choices among the individuals who they inspire (N. F. Krueger et al., 2000). However, these career decisions are influenced by the need for independence, income potential, and risk (Douglas & Shepherd, 2002). Risk and independence are of particular influence for driving an entrepreneurial intent among the

individuals because they are predictive of motivations and goals and therefore, remain the crucial determinants of entrepreneurial intention among potential entrepreneurs. This also involves the process of career planning when an individual's perceptions link their personal expectations of their role model's influences with their goals and career preferences (N. F. Krueger et al., 2000).

The perceptions about the role models also induce self-efficacy among their followers particularly when these role models exist close to them with which they can easily relate their perceived ability to develop entrepreneurial intention and therefore, pursuing entrepreneurship as a career choice (Scherer et al., 1991). Minniti (2004) argues that these role models if are profound in a society are likely to make career choices easy for the public because they make it easy for them to reach the decisions about their future goals.

While explaining their role in entrepreneurship, (Venkataraman, 2004) argues that these role models should be treated as the valuable source which provides the practical roadmap for potential entrepreneurs to perform entrepreneurial activities. Multiple scholars have held that the stronger prevalence of the role models in a society warrants higher rate of entrepreneurship (N. F. Krueger et al., 2000; Scherer et al., 1989). It has been put also by (Davidsson, 1995) when he suggests that lack of role models is considered as a determinant for the low number of women entrepreneurs in society. This discussion leads to propose the following hypothesis:

Hypothesis 9: Having a role model positively promotes entrepreneurial intention.

3.6.7. Opportunity Perception

Among other personality factors, passion is the key determinant for predicting entrepreneurial intentions. This also provides the rationale behind developing the perceptions about the economic opportunity for pursuing entrepreneurship goals. For the same reason, the entrepreneurs by opportunity are considered as individuals that feel motivated for new venture creation after getting inspired from the available opportunity (Mota et al., 2019). When an individual recognises the economic opportunity, he is likely to be successful in his entrepreneurship goals (Shane & Venkataraman, 2000). It has also been established that there is a causal relation between the perception of opportunities and the economic growth associated with the rise in entrepreneurship (Mota et al., 2019).

The variable of opportunity perception is derived from an individual's perception about an existing opportunity of their area of interest. These opportunities are usually created rather to confuse them with some existing jobs (N. F. Krueger et al., 2000). These perceived opportunities, in other words, do not exist in reality but are just envisioned through the eyes of an individual who perceives them. The perception of opportunity is contingent upon the cognitions that influence the process of shaping perceptions. These opportunities are derived from those perceptions that find the circumstances favourable and manageable for perceiving them (S. E. Jackson & Dutton, 1988).

The entrepreneurial alertness has been described as the opportunity perception in the empirical literature when it was first attributed with the capability of identifying unexplored opportunities without search and/or the motivation to anticipate what may be deemed an opportunity in the future (Gunning & Kirzner, 1981; Kirzner, 1973). However, this concept is subject to further scrutiny because the scholars have found that the firm creators have been engaged in information collection activities, and thereby, the basis of entrepreneurial alertness which is based upon identifying opportunities without search cannot be regarded as authentic (Busenitz, 1996). Despite all the odds existing in this phenomenon of the entrepreneurial alertness, the psychological factors that alert an individual for perceiving an opportunity are rationalised through the mental models. This also explains why the individuals possess varying perceptions of opportunities because an inexperienced firm founder may relatively have different approach to complexities compared to the established firm founders (Chi, 1981).

What drives a person to take the personal and financial risks that are linked with their decision of firm creation is underlined by their start-up motivation (Hessels et al., 2008). This is also gleaned from the distinction drawn between the necessity entrepreneurs when they demonstrate poor performance, lower satisfaction levels and shorter entrepreneurship goals than the opportunity entrepreneurs (J. Block et al., 2015; J. H. Block et al., 2015). Within the empirical literature, the motivation for opportunity is characterised with multiple factors including innovation, recognition, independence, roles, and financial goals (Carter et al., 2003; Shane et al., 1991).

Job creation is one important perspective of opportunity characteristics that shape the individuals' perceptions. The business opportunities are perceived differently among the people operating in different sectors. For instance, a solo proprietor may prefer to exploit business opportunities to meet the market demands. One person can operate the whole company while

providing services of tax consultancy or other similar services that can be managed by him alone. This decision of opportunity exploitation is decided by the perception of opportunity which is influenced by the personal cognitive behaviour as well as personality characteristics that find opportunity matching to their own personality traits (Dencker et al., 2009).

For determining entrepreneurial activity, it has been emphasised that the nexus between the opportunity and the individual should be focused. In so doing, the intersection between an individual's personality characteristics and the opportunity characteristics should be made sure existing there because in that case, the individual will pursue to exploit the opportunity. This also serves to create job opportunities in a firm when the founder of a firm with no prior experience in any particular sector perceives the opportunity useful and thereby, hires new employees to assign the tasks and duties to meet the market demands. The perception of the founder will be major determinant for creating job opportunities because this is the key driver to influence entrepreneurial activities (Shane et al., 2003).

The opportunity perception is considered as one of the major predictors of entrepreneurial activity. Within the empirical entrepreneurship literature, the perception of entrepreneurial opportunity has been tested and validated extensively which was first appeared in the work of Shane and Venkataraman (2000). The motivation of an individual to create a new firm stems from his opportunity perception (McMullen & Shepherd, 2006) and in certain scenarios, this may lead to planning shaped by the entrepreneurial intention (Baron, 1998). This planning is well-explained in the theory of planned behaviour which argues that the individuals' behaviours are influenced by their beliefs and attitudes (Ajzen, 1991). This theory further claims that attitude is "*the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question*" (Ajzen, 1991, p. 188). This suggests that the individuals' perceptions drive their behaviours which are represented in their attitudes.

In a scenario when the people discover enormous entrepreneurial opportunities, they would assess their capability of whether and how they can exploit those opportunities. If they perceive themselves capable of opportunities exploitation, they are expected to develop positive attitudes for possessing the behaviours that are planned in the direction of entrepreneurship (Ajzen, 1991). The individuals with positive attitudes towards the behaviour for the entrepreneurship are positively influenced to perform entrepreneurial activities. It has also been proposed that the positive perception of profitability associated with identified opportunities results in the entrepreneurial activity. However, the distinction between the entrepreneurial activities started

in developed and developing countries is marked by an important qualitative evaluation indicating that the entrepreneurship is more likely driven by the opportunities in the developed countries while the entrepreneurship by necessity is witnessed in developing countries (Bosma et al., 2008).

It is also noteworthy to mention here that the opportunities are not found; rather they are produced (N. F. Krueger, 2007). Opportunities do not exist in reality. Perceptions, along with cognition are considered as one of the major factors which may influence the entrepreneurial intention. This argument has been underlined in the proposition that the opportunity perceptions are driven by the personal assessments of individuals when they evaluate whether these opportunities are positive and manageable by them (S. E. Jackson & Dutton, 1988). Similarly, this has been further expanded by (Davidsson & Honig, 2003) when they hold that higher quality human capital corroborates with the positive opportunity perceptions and thereby, leading to successful exploitation of those perceived opportunities. This reflects the personal capability of a person possessing skills required to exploit opportunities and in so doing, the firm creation is the first step inspired by positive entrepreneurial intention (N. F. Krueger et al., 2000). The ability to look for entrepreneurial opportunities may positively influence entrepreneurial intention (Asante & Affum-Osei, 2019).

In a broader view, the public perception about the status of economy will influence their motivation to exploit the entrepreneurial opportunities. This in turn will produce macroeconomic implications for a country when the aggregate level of entrepreneurial intentions will be determined by the overall start-up rate against the gross domestic product (GDP) per capita (Renko et al., 2012). It has also been argued that per capita income is one of those contextual factors that influence the entrepreneurial intention (Uhlaner & Thurik, 2007). Since the entrepreneurship is influenced by opportunity recognition and exploitation, it is therefore important to evaluate the opportunity perception in the present thesis. Based on above discussed empirical research, the following hypothesis is proposed hereby:

Hypothesis 10: A positive perception of the economy promotes entrepreneurial intention.

3.6.8. Perception of High Status

The formation of entrepreneurial intentions leading to creation of new ventures is contingent upon the fact that the environment is friendly for potential entrepreneurs. This favourable environment produces positive influence on the antecedents of entrepreneurial intention (Ajzen,

2005). A social context in which the entrepreneurial culture is pervasive provides the impetus for the individuals to pursue an entrepreneurship activity.

An entrepreneurial culture may be deemed fit by individuals if they perceive it of higher status as well as the societal attribution to entrepreneurs. These perceptions are shaped by the extent to which people think becoming an entrepreneur, their status, and the overall views about the entrepreneurship. The media can build narratives advocating entrepreneurship by presenting positive images of entrepreneurs. Such is the example of magazines or television shows which are typically used for featuring entrepreneur and highlighting their success stories by describing their accomplishments in an appealing manner. If these entrepreneurs are featured as heroes, it is highly probable that their stories of success can be helpful for promoting entrepreneurship in a society (Laguía & Moriano, 2019).

The status for entrepreneurship is referred to as the proportion of the adult population who perceive individuals starting new ventures of higher status. This variable is attributed to the concept of social status (Begley & Tan, 2001) and therefore, this is anticipated to produce positive outcome on the entrepreneurial activity. This is also consistent with the theory of planned behaviour (Ajzen, 1985) in a manner that TPB emphasizes on the favourability of an attitude for firm creation is largely influenced by the social status of an individual. If an individual's perception is positive about the social environment, it is likely to enhance his propensity to create a new venture. However, there are certain social factors that influence their perceptions, and these factors are mainly driven the key question whether the person perceives entrepreneurs of higher social status, and the entrepreneurship is the profession he finds socially fit to his own context.

Since entrepreneurship is regarded as a sign of high social status, the following hypothesis is proposed:

Hypothesis 11: Perception of entrepreneurship as a symbol of higher status promotes entrepreneurial intention.

3.6.9. Perception of Media Attention

Within the empirical literature, the media attention index has been commonly applied to determine the influence of media on the individuals' entrepreneurial intentions. It has been referred as to the percentage of adult population who feel influenced by the stories that they see

often in the media about the success stories of new ventures (Hindle & Klyver, 2007). Due to the major influences of public media that it exerts on shaping human opinion, it is expected that the individuals can start developing their intentions of forming a new firm while getting inspiration from the success stories featured in the media.

Since the media holds the capacity to change values and perceptions (McDonald et al., 2001), it is of no surprise that this variable of media attention can have positive influence on the entrepreneurial intention. This can be explained by contextualizing the media coverage of the entrepreneurs that has been found in positive relationship with the entrepreneurial process. However, it has also been construed in a previous study that the positive relationship between the media coverage and increased entrepreneurship participation was contingent upon the type of opportunity that they feel inspired from rather than feeling compulsive to participate in the ecosystem of the entrepreneurship (Hindle & Klyver, 2007).

Arguably, the connection between the media attention and the entrepreneurial intention may require further research because the currently available literature lacks substantive evidences that can endorse this link undisputedly (Laguía & Moriano, 2019). It has been argued in a previous studies (Radu & Redien-Collot, 2008) that the media is crucial for the dissemination of information which is expected to influence the societal values, norms and beliefs greatly. Therefore, this influence can be directed to gear up support for entrepreneurship by projecting the monetary and social benefits of the entrepreneurial career.

Since media is a powerful tool for shaping perceptions, it can also be exploited to influence people in how they can become successful entrepreneurs by presenting ideas that catch attention and improve perceived behavioural control. With a reasonable coverage from successful entrepreneurs, the media can persuade individuals into adopting the entrepreneurship as the career and by doing so, media can be used as a valuable resource for boosting the entrepreneurial activity in a country (Hindle & Klyver, 2007). These changes followed by the media coverage can be related to positive influences on the antecedents of entrepreneurial intention (Anderson & Warren, 2011).

The availability of business information is crucial for developing an intention to create a business. In a classical study, it has been established that the urge to seek information is the major determinant of the entrepreneurial intention to start a new business (Sánchez, 2013). The phenomenon of information seeking is determined through evaluating the contacts that a

potential entrepreneur makes with sources to retrieve information. The information gathering involves the objective evaluation of the social network that an individual maintains. Within this paradigm, the information availability is linked with the entrepreneurial intention in a manner that the individual reaches to markets, technological solution providers and other government regulators for evaluating whether his perception is pragmatic to the ground realities and the available information. This availability of information is approached through various forums including media and social network and the individual's information seeking behaviour will be contingent upon his education (Kristiansen & Indarti, 2004).

Since media is the powerful tool for discourse development, it is of important value in shaping ideas and perceptions about the businesses and entrepreneurship by providing valuable information (Boyle & Kelly, 2012). Within the United Kingdom, the famous business programme Dragons' Den remains the popular show among the views and is a valuable resource for the inspiring entrepreneurs. For instance, this programme provides valuable insights on how to pitch an idea and attract the investors and entrepreneurship opportunities. Also, the solutions to the most common challenges in the entrepreneurship are discussed in this programme. The larger viewership of this programme is younger but it aims to provide information for other age groups as well (Boyle & Kelly, 2012).

The social cognitive theory of mass communication also affirms that the media can mediate changes through providing information that motivates individuals (Bandura, 2001). It has also been argued in this theory that the information flow channelled through the media can influence the perceptions of individuals in a manner that they develop the interest in the entrepreneurship on the basis of presentation and authenticity of information presented through the media. This also affirms the external influences that can drive a potential entrepreneur to develop the entrepreneurial intention. For instance, it is usually construed that the media campaigns tailored for any social cause including entrepreneurship have the tendency to produce small to moderate impacts on the individuals' behaviours and attitudes (Laguía & Moriano, 2019).

The roadmap for the policymakers to develop a culture that is conducive for entrepreneurship is devised by certain strategies that promote entrepreneurs for inducing positive perceptions about them. Their positive image on media in combination with higher status of entrepreneurship can influence individuals' career choice and they may prefer to become an entrepreneur (Abebe, 2012). The media plays a vital role in building narratives that can

streamline popular and favourable views about an entrepreneurial culture (Anderson & Warren, 2011).

Consequently, the media and status of entrepreneurship and knowledge of entrepreneurial support are those critical environmental factors that can influence the entrepreneurial intentions of firm creation. It has also been argued by (Gnyawali & Fogel, 1994) that the societal recognition of entrepreneurs amounts to enhanced status of entrepreneurs. Therefore, it is imperative to make sure that the entrepreneurial support must provide sufficient information and access to knowledge so that the likelihood of creating new ventures can be enhanced among the potential entrepreneurs by positively influencing their entrepreneurial intention and its antecedents (Delanoë, 2013).

In Qatar, the government seeks media cooperation for extensive coverage of the successful entrepreneurs in multiple sectors so that the individuals can participate entrepreneurship after getting inspiration of their peers from areas of their particular interest. For instance, a technology entrepreneur success story may influence young Qatari citizens who have already developed interest in the information technology and have positive perceptions about the opportunities in this sector.

This strategy will be productive for encouraging entrepreneurship across multiple sectors rather to stay confined to one sector growth. It is also important to mention here that the adequate media coverage of the education programs in a country like Qatar can also improve the perceptions about the likelihood of attending training programs that have been developed for producing inspiration among the future entrepreneurs. Also, the social identity of entrepreneurs can be an important cornerstone for measuring their intention to create a new venture because the identity type of Qatari adults surveyed in the present study would be critical to determine entrepreneurial intention. Based on the above discussion, the following hypothesis is formulated:

Hypothesis 12: Perception of entrepreneurship as an opportunity for higher media attention promotes entrepreneurial intention.

3.6.10.Perception of Entrepreneurship as a Career Choice

Entrepreneurship represents one of the career choices that the individuals pursue for their self-employment inclination. For instance, an entrepreneur who was employed before transitions to

entrepreneurship and prefers to be self-employed (Katz, 1995; Kolvereid, 1996). However, some researchers are of the view that the entrepreneurial careers cannot be explained well with the traditional theories of career choice (Singh & DeNoble, 2003). According to Dyer (1995), these traditional theories of career choice are mainly focused on what drives individuals to pursue particular careers. This is also determined by the individuals' perceptions about the challenges they face when the hierarchy is their primary concern. The people who turn to entrepreneurial careers are the leaders in their firms and therefore, this defines their personality attitude about the hierarchy.

The entrepreneurship as a desirable career choice represents the percentage of the adult population who perceives entrepreneurship as a favourable career choice in their own setting. This variable corroborates with "*individualism*" (Geert Hofstede, 1980). The variable of career choice is also considered with positive influences on the antecedents of entrepreneurial intention (Klyver & Hindle, 2007).

To understand why certain individuals, pursue an entrepreneurship career compared to others who do not, it is vital to know what drives their decision for this untraditional career choice. In the empirical research focused on career choices, it has been primarily focused on personality variables (de la Cruz et al., 2018) and motivation factors that define personality attitudes towards changes. Locus of control is also one of those determinants that influence the personal behaviour for making career choices, such as the decision to be an entrepreneur (Asante & Affum-Osei, 2019; Brunel et al., 2017). Similarly, the self-efficacy is another interlinked variable because personal belief on the ability to perform actions that are required to pursue entrepreneurial intentions drives the decision for entrepreneurship career choices (Asante & Affum-Osei, 2019). That is to say, the personal attitudes drive the intention to pursue career choices that are influenced with the perceived opportunity.

Entrepreneurship is viewed as a plausible career choice if the individual's perceived desirability and feasibility for an opportunity is present (Shapero & Sokol, 1982). While this perceived feasibility of entrepreneurship as a career choice represents an individual's evaluation of available resources and personal capabilities for pursuing the firm creation activity, this also encompasses the cognitive factors that impact these choices (N. F. Krueger et al., 2000). Since the firm creation itself is the evidence of the entrepreneurial intention, the engagement in this process represents the career choice as soon as an individual embarks on this activity (N. F. Krueger, 2017). If this is to put in simple words, the positive perceived desirability and

feasibility of entrepreneurship persuades an individual to develop entrepreneurial intention for creating a firm.

While differentiating between the employment and self-employment alternatives, it is argued that the relationship between the personal attitudes and the income potential is derived from the working conditions in other workplaces where an individual may feel lack of decision making autonomy and the efforts required along with exposure to risk (Douglas & Shepherd, 2002). The authors have held that the individuals are likely to pursue entrepreneurship as a career choice when they find this option promising for outcomes with greater perceived utility. They have also posited that there are three decisive factors that influence an individual's intention of whether they would prefer to be employed or self-employed. These decisive factors influencing their career-oriented intention include decision-making autonomy, financial risk and effort which are collectively attributed as the independence (Zellweger et al., 2011).

Given the implications of social context on the formation of entrepreneurial intentions inspiring career transitions for the entrepreneurship, it is crucial to understand the moderating influence of this link on the career choice of firm creation (Meoli et al., 2020). With the drastic changes witnessed in the labour market globally, this is of no surprise that the technological innovation and globalisation have mediated the transformation in the traditional workplaces resulting in how individuals approach the career (Sullivan & Baruch, 2009). This relationship between the social context and the entrepreneurial intention has been explored through the lens of social cognitive career theory (Bandura, 1986) to understand the career transitions that an individual adopts in favour of entrepreneurship (Lent et al., 1994). An individual's interpretation of whether he can handle an opportunity or difficulty by assessing his personal capability drives his interest and career choice (Meoli et al., 2020). For instance, a person would hardly be interested in a career that he perceives of no interest or with more challenges to handle.

Therefore, the social cognitive theory describes the link between the career choice and the entrepreneurial intention by inferring that the career interests drive the career choices. This influence is mainly shaped by an individual's perceptions about the characteristics of the social context and the related career choice (Bandura, 2001). This is typically witnessed in real life when the people feel more influenced by their family and social networks for the career choices. However, the other social factors that may influence the entrepreneurial intention of firm creation as a career choice are also shaped by the perceptions about the macroeconomic

conditions and the growth in the sector (Meoli et al., 2020). Consequently, this proposes the following hypothesis:

Hypothesis 13: Perception of entrepreneurship as a career choice fosters entrepreneurial intention.

3.7. ENTREPRENEURIAL SOCIAL IDENTITY: CREDENCE OF THE SOCIAL IDENTITY THEORY TO ENTREPRENEURSHIP

Following by the determination and analysis of the factors that predict the entrepreneurial intention in Qatar, I would further explore the intergroup behaviour of entrepreneurs and studying their identity using the social identity theory. Social identity is helpful in differentiating entrepreneurs for their choices of what type of firm they aspire to create, the types of opportunities that they are attracted to, the distinct benefits they endeavour for in new firm creation, the types of venture creation activities they engage in, and the distinct performance criteria that they apply to their activities overall (Fauchart & Gruber, 2011).

In a previous study (Powell & Baker, 2014), it has been investigated whether the founder's identity is influenced by the circumstantial changes. In this study, they contend that entrepreneurs' social identity is likely to shape their behaviours and actions and therefore, it is assumed that they may feel influenced by any events that can impact their own views about themselves. They have also implicated that the social identity of founders represents their own role what they perceive and is itself an expression of their role identity. Similarly, another domain of entrepreneurs' social identity is gleaned from the postulation that it has potential impacts for the opportunity type, decision making and the value supplementing firm creation (Fauchart & Gruber, 2011; York et al., 2016). With the examination of an person's social identity, it is quite possible to understand and predict behavioural choices and entrepreneurial actions (Sieger et al., 2016).

The entrepreneurial identity is the central antecedent the entrepreneurial actions. These actions are shaped by entrepreneur's meaning, attitude, motivation, decision making and other activities which occupied the central value in the social identity (Sveningsson & Alvesson, 2003). The founder's decisions directly influence both the evolution (Boeker, 1989; Cardinal et al., 2004) and the success of a firm (Bamford et al., 2004; Park & Bae, 2004). Empirically, it has been consistently asserted that the identity is the precursor of entrepreneur's decisions (Hoang & Gimeno, 2010). Because the activity of a firm foundation is impacted by how an entrepreneur

perceives himself while comparing to others (Fauchart & Gruber, 2011), the entrepreneurs therefore identify the identity of their businesses consistent with their own personality traits, behaviours, and perceptions (Morris et al., 2012).

While utilising the key elements of their identity, the entrepreneurs exploit them for deciding their actions and decisions (Sarasvathy, 2001). This actions and decisions are comprised of social and/or cultural constructs of entrepreneurial identity because their behaviours are impacted by deriving influences from their national culture (Zahra, 2007). The national culture drives the entrepreneurial decision making and the processes involved in activities (Thomas & Mueller, 2000).

According to (Sarasvathy, 2001), three distinct categories of how entrepreneurs proceed with developing their firms have been identified. These categories include their skill set, education and experience, and social and professional network. Their knowledge and social relationships help them to visualise their business goals for creating new firms (Hite & Hesterly, 2001; Shane, 2000; Wiklund & Shepherd, 2003). Social identity is affirmed to play a role in characterizing the entrepreneurial behaviour of individuals (Alsos et al., 2016).

Within the entrepreneurship research, all the behaviours and activities are determined (Alsos et al., 2016). In the present thesis, the social identity theory is used as a theoretical construct for supporting out theoretical framework. Therefore, it is expected that this theory will be helpful to distinguish the variant behaviours that the entrepreneurs demonstrate in founding their firms (Davidsson & Honig, 2003; Fauchart & Gruber, 2011).

The typology of business social identity has been famously characterized as "*Darwinian*", "*Communitarian*", and "*Missionary*" (Fauchart & Gruber, 2011). The systematic analysis of these social identity categories would be valuable for identifying the social identities of entrepreneurs in Qatar which will be helpful to determine their entrepreneurial intention in the present study. These three categories of social identities encompass entrepreneur's personal relationships with others. The different self-conceptions of entrepreneurs that are characterised with different social identities are major predictors of how they pursue their behaviours for firm creation (Fauchart & Gruber, 2011). The present study has no other choice except to rely upon the short yet growing literature detailing how entrepreneurial activities are reflected into self-conception and/or the entrepreneurial identity (Cardon et al., 2009; Haynie & Shepherd, 2009; Hoang & Gimeno, 2010).

According to (Fauchart & Gruber, 2011), the social context of entrepreneurial identity includes all variations of social motivations that can possibly influence individual attitudes and behaviours. Therefore, it is important to comprehend its implications for the entrepreneurial intention. These authors have also posited that the social identity theory lens should be conceptualised (Tajfel & Turner, 1979) in order to gain an understanding about an entrepreneurial identity typology (Darwinian, Communitarian, and Missionary identities).

Social identity can be of three different types - Darwinian, communitarian, and missionary (Brändle et al., 2018). Darwinian entrepreneurs are motivated by economic interests and considered professional competence as their success. Communitarian entrepreneurs have a grounded perception of belonging to a group and evaluate their success with reference to others in their group. Social identity theory has been used to explain the association between an entrepreneur's identity and entrepreneurial behaviour while establishing a business venture. While missionary entrepreneurs are motivated by social causes and advance their cause through venture creation to serve the society at large (Brändle et al., 2018). Furthermore, social identity has been determined as a factor that influences the exploitation of entrepreneurial opportunities, the strategic decisions taken and the business value that entrepreneurs create (Brändle et al., 2018). Thus, social identity can translate into variation in the firm creation process and its outcome.

Since the entrepreneurs shape their social environment, this demonstrate their tendency to produce an impact on the economic growth and the overall societal transformation (Zahra et al., 2009). For the same reason, it is argued that an entrepreneur's identity can produce substantive impacts on the opportunity type that they aim to pursue.

The social identity of an entrepreneur is shaped by the social factors which include motivation, self-assessment, and reference stimuli of inspiration (Fauchart & Gruber, 2011). Due to their three different social identity types that have been mentioned earlier, their entrepreneurial processes are shaped by the intention and motivation driven by the self-interest. The major driver behind their decision to feel motivation about any particular entrepreneurial opportunity is the ease of the accomplishment because all the entrepreneurs holding three different social identities are expected to feel conscious of receiving positive feedback about their ventures. This is also further correlated with social cognitive theory (Bandura, 1986) that aims to explain the cognitive process involved in decision making of an individual's intention of starting a new venture. Therefore, the Qatari population should be evaluated for their social identity and the

campaigns for promoting entrepreneurship in Qatar should be tailored in line with interests of three types of entrepreneurs.

For the present thesis, the social identity theory postulates a theoretical lens through which different types of entrepreneurial identities would be contextualised to interpret their influence on the differences in basic social motivation, self-assessment and reference stimuli of inspiration for an entrepreneur (Fauchart & Gruber, 2011). Provided the fact that Qatar is a wealthy country and entrepreneurship is driven by opportunity, not necessity (Bosma & Kelley, 2019) the following hypotheses are proposed:

Hypothesis 14: Qatari entrepreneurs are mainly Communitarian and Missionaries while non-Qatari entrepreneurs in Qatar are mainly Darwinian.

Hypothesis 15. The social identity of Qatari citizens and expatriate entrepreneurs is associated with demographic and business firm characteristics.

3.8. FACTORS AFFECTING ENTREPRENEURIAL SOCIAL IDENTITY

Successful entrepreneurship requires the efficient utilization of resources to maximize income returns. In order to become successful entrepreneurs, it is necessary to display the behaviour and characteristics which gear towards efficient allocation of available resources and maximization of utility of capital. While it is acknowledged that the primary motivation of entrepreneurs during the past decades is to solely focus on ensuring the success of their respective enterprises and emerging as the most bankable and successful among other competitors, the dynamics of entrepreneurial environment, demand for products and services and emerging economic, social and environmental priorities of the society has shifted entrepreneurial activities towards being responsive to social needs. In an attempt to characterize the changing profile of entrepreneurs in this era of globalization and international trade, several entrepreneurial theorists have approached the characterization of entrepreneurs using theories which focus on the identity of the entrepreneur. Among these are theories related to personal identity, role identity, and social identity.

Among the theories which characterize the behaviour and motivation of individuals to pursue entrepreneurship, the Social Identity Theory has emerged as one of the most commonly cited as a theoretical framework. According to the theory, individuals form social identities based on their sense of belongingness to a social category (e.g., race, motivation, nationality, preference,

social status) (Smith & Woodworth, 2012). Once the social category has been identified, the individual's behaviour, goal and aspiration align with the identified group which establishes a sense of self-concept. The conceptions then influence how the individual behaves, given a certain environmental or social stimulus, in a way that is expected from individuals who identity as part of the social category. Similarly, entrepreneurial activities are also defined by an entrepreneur's self-concept, motivation, beliefs, predispositions, mindset, and other social, behavioural, and cognitive attributes which parallels the expected qualities of the identified social category.

In the field of entrepreneurial research, Social Identity Theory has been used as the theoretical basis for the characterization of entrepreneurs, and the construct has been contextualized as entrepreneurial social identity. The theoretical underpinnings of entrepreneurial social identity, or social identity, describes the entrepreneur's self-perception in the presence of an entrepreneurial opportunity. At present, it is recognized that entrepreneurship is entirely volitional, and the social identity of the entrepreneur has a defining role in decision-making and risk aversion. Since social identity was also claimed to be an antecedent of entrepreneurial intention (Obschonka et al., 2012) and determines the entrepreneur's behaviour and actual entrepreneurial performance within the context of the entrepreneurial environment (Brändle et al., 2019), the assessment of social identity among entrepreneurs has been a staple and evolving topic of entrepreneurial research (Alsos et al., 2016; Brändle et al., 2018; Cesinger et al., 2021; Fauchart & Gruber, 2011; Sieger et al., 2016).

The initial effort to characterize pure social identities in the study of Fauchart and Gruber (2011) has greatly emphasized the relevance of behavioural theories as a theoretical basis to describe the risk-taking behaviour, motivation, preference and risk-aversion strategies among nascent and established entrepreneurs. Several studies have claimed that social identity reflects entrepreneurial self-efficacy (Brändle et al., 2018; Hand et al., 2020), and predicts entrepreneurial strategies utilized to ensure entrepreneurial success (de la Cruz et al., 2018).

Based on the study of Fauchart and Gruber (2011), three pure social identities were identified and described to be exhibit exclusive perceptions, personal characteristics and behaviours towards entrepreneurship. These pure identities refer to "*Darwinians*", "*Communitarians*", and "*Missionaries*", which are used to classify entrepreneurs of various risk appetites and motivations to embark on entrepreneurial activity. The exclusivity of self-perception and behavioural characteristics have been elucidated further by the study of Sieger et al., (2016),

but also reported the "*Hybrid*" social identities to characterize entrepreneurs with strong predispositions to exhibit characteristics associated with pure identities. Hence, the recognition of "*Darwinian-Communitarian*" social identity, "*Darwinian-Missionary*" social identity, and "*Communitarian-Missionary*" identity have established the need to re-explore the context of hybrid social identities in entrepreneurship and has gained recognition as a relevant research focus in entrepreneurial studies (Alsos et al., 2016; Hand et al., 2020; Soto-Simeone & Kautonen, 2021).

The pure social identities have been identified based on their most distinct behavioural characteristics, business preference, and risk aversion strategies when faced with entrepreneurial opportunities. An entrepreneur who exhibits a "*Darwinian*" social identity prefers business ventures which are characterized by high profitability (Alsos et al., 2016; Fauchart & Gruber, 2011; Sieger et al., 2016). Aside from maximizing profit, "*Darwinians*" are also driven to minimize the impacts of expenses by utilizing cost-reduction decision-making strategies (Fauchart & Gruber, 2011) and view their competitors as main point of comparison for entrepreneurial success and utilize strategies to maximize profit, thereby embracing a professional approach to run their business industries (Hand et al., 2020). A pure "*Communitarian*" social identity is associated with the desire to help communities and perceive profit generation as a lower priority (Hand et al., 2020). Entrepreneurs who identify as "*Communitarians*" have a specific frame of reference, and exhibit an intimate knowledge of the needs of a specific community and considers how the enterprise contributes to the betterment of the community, in response to the interest exhibited by the community to the products and services offered by the "*Communitarian*" entrepreneurs (Soto-Simeone & Kautonen, 2021). Lastly, a pure "*Missionary*" social identity is linked with the tendency to focus on socially responsible production methods which benefit the society as a whole (Fauchart & Gruber, 2011; Soto-Simeone & Kautonen, 2021) and lesser priority on profit generation (Alsos et al., 2016). It was claimed that predisposition towards a "*Missionary*" social identity envisions entrepreneurship as a tool to improve the society (Hand et al., 2020).

Entrepreneurial social identities have been associated with other physical, cognitive, and behavioural attributes of the entrepreneurs, in an attempt to link social identity with personality of the individual. For instance, females have a relational orientation, while males have a collective orientation, suggesting a high likelihood that male entrepreneurs are more probably to exhibit "*Darwinian*" social identity while female entrepreneurs are more likely to exhibit a "*Communitarian*" social identity (Sieger et al., 2016). Male gender was also associated with

higher self-efficacy in entrepreneurship (Brändle et al., 2018), indicating that males are capable of devising risk aversion strategies while maximizing profit generation, establishing males to be more inclined to be "*Darwinians*". While it is recognised that females are more docile than males due to cultural expectations, motherhood increases the desire of females to be more successful in business ventures (Davis & Shaver, 2012), indicating the dynamic nature of entrepreneurial social identity as affected by social roles within a specific cultural context.

Among established entrepreneurs, older age is associated with altruism and the desire to give back to the society (Sieger et al., 2016; Soto-Simeone & Kautonen, 2021). This suggests that older entrepreneurs have already sustained economic stability due to years of successful entrepreneurship and have decided to exhibit pro-social behaviour later in life. Students who exhibit the desire to start their entrepreneurship journey, on the other hand, are more likely to be motivated by higher profit and greater risk aversion when starting a business. Right after graduation, young, inexperienced individuals also work in jobs which are characterized by highly entrepreneurial social environment (Obschonka et al., 2012). However, the propensity to embark on entrepreneurial activity may also be associated with prior successful entrepreneurial experience *per se*, or exposure to peers who exhibit entrepreneurial intention (Obschonka et al., 2012) and not age of the entrepreneur. Hence, age may exhibit a non-distinct association with entrepreneurial social identity due to other moderating characteristics within the context of their entrepreneurial and social environment.

The level of education is also a relevant moderator which influences the social identity of entrepreneurs. However, there are additional details to be considered when associating level of education with the entrepreneurial social identity. Among these considerations are the type of education received, relatedness of educational background to entrepreneurship, and ability to perceive risks related to enterprises. Social identity is affirmed to play a role in characterizing the entrepreneurial behaviour of individuals (EstradaCruz et al., 2019).. Individuals who exhibit a "*Darwinian*" social identity have completed degrees related to management or economics while "*Communitarians*" and "*Missionaries*" have completed degrees related to technology (Fauchart & Gruber, 2011).

Darwinians are less likely to embark on enterprises related to education (Sieger et al., 2016), suggesting that level of education *per se* is not an antecedent to entrepreneurship, but are contributory to risk aversion strategies prior to embarking on entrepreneurial activities. In the study of Liñan et al (2011), it was claimed that education should be designed to address

behaviour and attitudes to promote entrepreneurial intention. However, it is also possible that the educational background may not be the actual practice implemented by the entrepreneurs during decision-making opportunities (Alsos et al., 2016), thereby suggesting that education per se needs to be contextualized when investigating its influence on entrepreneurial intention. However, the level of education is still recognized in this study as a relevant moderator in the context of effectual and causal reasoning when making decisions related to entrepreneurship (Sarasvathy & Dew, 2005).

It is also recognized that entrepreneurs have preferences towards business types. It was emphasized that Sieger et al., (2016) that "*Darwinians*" prefer industries which have high profit returns while "*Communitarians*" have the predisposition to focus on business industries which cater to the needs of a specific community. "*Missionaries*" emphasize the inclusion of the societal welfare as a whole and focus on strategies which create a positive impact to environment. However, business opportunities may be considered profitable or not based on the environmental environment where the enterprise is found in. In addition, there is a need to consider whether the business venture is operating in an individualistic or collectivistic economy. Individualistic economies are characterized by a social milieu where individuals operate independently and promote self-interest, while collectivistic economies dwell on closely-knit social frameworks to sustain entrepreneurial activities without doubting the loyalty of the members of the social group (Tiessen, 1997). It is acknowledged that there are no definite associations between the business types with the entrepreneur's social identity (Alsos et al., 2016), but certain business firms are, by nature, appealing to pure social identities. Agricultural entrepreneurship requires environmental management and productive use of land (Fitz-Koch et al., 2018), which are similar to the social cause of "*Communitarians*" and "*Missionaries*". The education and training sector do not appeal to "*Darwinians*".

Over-all, the credence of the Social Identity Theory remains to be a relevant theoretical basis for categorizing entrepreneurs, but the dynamic characteristic of human behaviour, entrepreneurial environment and social interactions may result to the emergence of new theoretical exemptions which can reshape what has been established in the study of Fauchart and Gruber (2011). Despite the limitations of the Social Identity Theory, it is recognized that entrepreneurial behaviour and success will be influenced by various personal and cultural characteristics, with social identity emerging as a key factor in promoting entrepreneurship.

3.9. RESEARCH FRAMEWORK

The research framework for Study 1 is illustrated in **Figure** 3.3. The dependent variable in the research framework is entrepreneurial intention. The independent variables include perceptual factors such as individual perceptions, perception of economy and socio-cultural perceptions. Individual perceptions included perceptions on "*self-efficacy*", perceptions on "*need for achievement*" (association of entrepreneurship with need for achievement), perception on "*risk-taking propensity*", perception of "*locus of control*" and perception of "*role model*" (number of role models in entrepreneurship). The variable perception of economy included the "*perception of opportunity*" Socio-cultural perceptions include the perception of "*high status*", "*media attention*" and "*career choice*" The sociodemographic variables include the respondents' age, gender, level of education, and nationality.

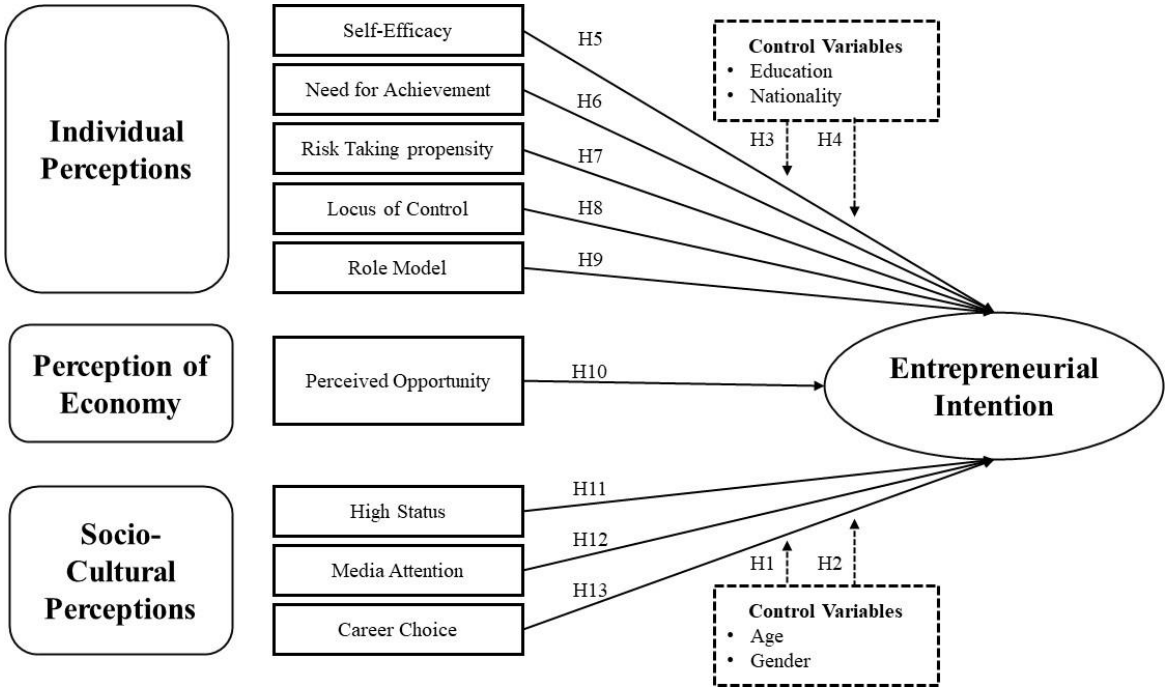

Figure 3.3 Research framework and hypotheses

Based on the referred theories and the model above, we set forth the following hypotheses for empirical analyses in my thesis:

Hypothesis 1: Gender is associated with entrepreneurial intention.

Hypothesis 2: Increasing age decreases an individual's entrepreneurial intention.

Hypothesis 3: Higher education level promotes entrepreneurial intention.

Hypothesis 4: Nationality is associated with entrepreneurial intention.

Hypothesis 5: Higher perception of self-efficacy promotes entrepreneurial intention.

Hypothesis 6: Higher perception for need for achievement predicts entrepreneurial intention.

Hypothesis 7: Higher risk-taking propensity promotes entrepreneurial intention.

Hypothesis 8: Higher perception of locus of control predicts entrepreneurial intention.

Hypothesis 9: Having a role model positively predicts entrepreneurial intention.

Hypothesis 10: A positive perception of the economy promotes entrepreneurial intention.

Hypothesis 11: Perception of entrepreneurship as a symbol of higher status promotes entrepreneurial intention.

Hypothesis 12: Perception of entrepreneurship as an opportunity for higher media attention promotes entrepreneurial intention.

Hypothesis 13: Perception of entrepreneurship as a career choice predicts entrepreneurial intention.

On the other hand, the second study is focused on finding links between entrepreneurial factors, business factors, and entrepreneurial social identity of entrepreneurs in Qatar. To recall, the pure social identities were "*Darwinian*" social identity, "*Communitarian*" social identity, and "*Missionary*" social identity. The following hypotheses are hereby presented for the second study.

Hypothesis 14: Qatari citizens entrepreneurs are mainly Communitarian and Missionaries while non-Qatari entrepreneurs in Qatar are mainly Darwinian.

Hypothesis 15: The social identity of Qatari citizens and expatriate residents' entrepreneurs is associated with demographic and business firm characteristics.

The details of the research design, survey, and the method of analysis of the acquired data are discussed in the next chapter.

4. CHAPTER FOUR: METHODOLOGY

The previous chapter in this thesis reviewed the empirical literature focused on the entrepreneurship and entrepreneurial intention. In the literature review, it has been repeatedly observed that the past efforts to explain entrepreneurship intention were based on the theory of planned behaviour. In order to understand the entrepreneurial identity, the social identity theory was found as the reliable paradigm and was also exploited for the same purpose in the present thesis.

Based on the substantive discussion surrounding the empirical evidence of EI, the research questions and the hypothesis are explicitly stated. Having identified a framework to guide this thesis, this chapter explains the decisions behind the choice of methodology and the methods used to conduct the research. This chapter illustrates the procedures used in this thesis design and implementation. Also, the adequacy of the logistic regression as the statistical model is discussed here along with anticipation of the odds in relation to entrepreneurial intention and the predictor variables. As well as the multiple correspondence analysis that have been used to profile the identity of entrepreneurs in Qatar.

4.1. RESEARCH DESIGN

As stated categorically in chapter one, the aim of this research is to explore the factors influencing the entrepreneurial intention in Qatar. The entrepreneurship research tends to suggest that the perceptions of desirability and feasibility of entrepreneurship as well as individual background factors are found to influence an individual's entrepreneurial intention to create a firm (Ajzen, 1991; Davidsson, 1995). As far as the design paradigms of the past research is concerned, it has been predominantly positivist (Grant & Perren, 2002). With the appreciation of the positivist approach, one can easily comprehend what constitutes the human behaviours and how they are influenced.

The positivism position maintains that reality is objective and is subject to developing an understanding on how to avoid the bias for the subject (Johnson & Duberley, 2000). The positivist position expands on this argument further by affirming that since there is no interdependence existing between the researcher and the subject, it is therefore possible to measure and evaluate the cause-and-effect relationship and can be generalised accordingly. Consequently, it is held that the positivism philosophy is applied by the researchers within the

social sciences field for developing models that are used to predict human behaviours. Therefore, the positivism position remains the most commonly exploited philosophical paradigm within the empirical research of business and management studies (Johnson & Duberley, 2000).

This thesis intends to answer the main research question tailored to determine the contextual factors which are attributed for their positive influence on the entrepreneurial intentions. In this pursuit, the present thesis attempts to measure the statistical significance of the explanatory variables for increasing the likelihood of expressing entrepreneurial intentions as well as to determine the link between entrepreneurs' need for social identity and entrepreneurial activity in Qatar. Given these aims and objectives of my thesis, it is reasonably construed here that the positivist philosophical position would be adequate design paradigm for investigating through cause-and-effect relationships to predict entrepreneurial intention in Qatar. Therefore, the positivism philosophical position is deemed crucial to fulfil the thesis aim because it would be helpful to set the methodological direction for pursuing the research questions outlined in the first chapter.

The primary research question of the present thesis aims to answer the question:

> *What kind of perceptions (individual, economic, and socio-cultural) is significantly associated with entrepreneurial intentions and how strongly they can predict entrepreneurial intentions in Qatar statistically?*

From an epistemological perspective, the empirical studies included in this thesis also have adopted a positivistic approach, which provides the justification for using this research philosophy. Also, I will explain social reality with objectivity and will make sure that it is not affected by the subject under investigation (Remenyi et al., 1998).

The thesis follows a hypothetico-deductive methodology (Lawson, 2000) by collecting quantitative data. In this research methodology, the pre-postulated hypotheses are tested while verifying their validity for predefined variables. The initial objective is to conceptualize a hypothetical framework to investigate the entrepreneurial intention gap in Qatar (**Figure 3.3** from the previous chapter). The theory of planned behaviour was adopted to conceptualize this model and test the hypotheses that have been developed in the third chapter. This model is helpful for addressing the gaps in the knowledge.

To explore the research questions of my thesis, two quantitative studies were conducted. The first study was specifically designed to discover the factors behind the entrepreneurial intention in Qatar. Whilst the second study was performed on a stratified sample of entrepreneurs in Qatar to gain an insight into their need for social identity, and to understand how the social identity as a factor shapes entrepreneurship in Qatar. The first study was carried out to investigate the entrepreneurial intention which was previously integrated into Global Entrepreneurship Monitor (GEM) project. As the largest international research forum, GEM is known for evaluating the capability of the adults in any country to engage in entrepreneurial activities as well as identifying those favourable scenarios that can possibly boost the entrepreneurship initiatives (Levie et al., 2014). The GEM data presents an excellent source of information to determine the influence of entrepreneurship to economic growth and development and has provided several research instruments which measure the entrepreneurship of individuals in various population demographics and contexts.

4.2. FIRST STUDY: FACTORS PREDICTING ENTREPRENEURIAL INTENTION

In this section, the determination of the best model which contributes to entrepreneurial intention was described to clarify the variables which contribute significantly to the likelihood of embarking in entrepreneurial activity, based on entrepreneurial intention. The variables investigated include socio-demographic profile, individual perceptions, perception of economy and socio-cultural perceptions. The variables are discussed in more detail in the succeeding sections.

As mentioned earlier, this study was part of the GEM project. GEM is an international research initiative which was first pursued in 1997 when the researchers of Babson College (USA), London Business School (UK) developed this collaboration. The first study was carried out in 1999 with only 10 participating economies. Since then, this research initiative has proved a great resource for understanding the research field (Amorós et al., 2013). GEM is the strong resource for retrieving data to use in any potential study including the present thesis because this is a well-recognised source for its academic authenticity and validity as argued in several studies (Álvarez et al., 2014).

Founded in 1999, GEM data have been of vital importance. Since then, this data has been of enormous value for developing and adjusting policies aimed at boosting entrepreneurship worldwide (Bosma et al., 2020). Apart from national governments, GEM data has also been the

milestone of development initiatives introduced by global organisations for instance European Commission, World Economic Forum, United Nations, and World Bank. In more than 700 peer-reviewed scientific studies that are published now, GEM data was used extensively across all of them (Bosma et al., 2020). In a country, GEM practically tracks entrepreneurship activities from their nascent to start-up stage, established business and business discontinuation. Thus, GEM is widely accredited to be the globally largest database of comparative entrepreneurship information. Additionally, the number of academic articles published using the GEM data is also steadily increasing.

As outlined in **Figure** 4.1, the GEM conceptual framework is based on the link between individual attributes and societal values. This framework is modelled as such for influencing the individual's attitudes toward entrepreneurship as well as their entrepreneurial intention and goals. In this framework, the contextual factors are taken into consideration. These contextual factors include the social, cultural, political, and economic contexts that are considered to both influence the entrepreneurial activity and are shaped by the entrepreneurial activities in a particular context (Bosma et al., 2020). It is therefore contended that since the entrepreneurship is the stimulus for the market competitiveness by increasing products, services and job opportunities, this warrants a boost in economic activities driving economic growth (Amorós et al., 2013; Levie et al., 2014).

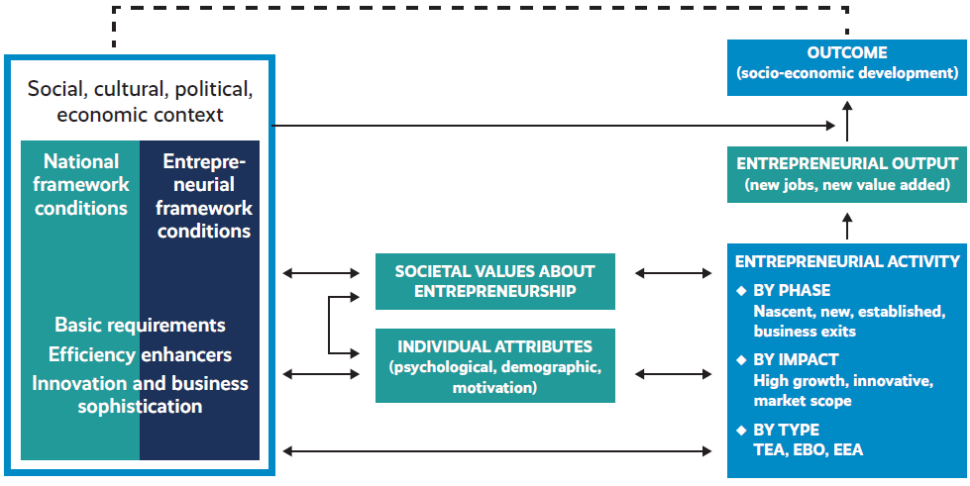

Figure 4.1. GEM framework

Source: Bosma et al., (2020, p. 24)

The major influencer of entrepreneurial activity is drawn from the Entrepreneurial Framework Conditions (EFCs). The EFCs demonstrate where which an entrepreneurial activity takes place

and thereby, derives brings positive outcomes by providing the environment for the integration of social value and economic growth. The social values validating entrepreneurship as a better career choice are critical for promoting entrepreneurial activity. This includes initiatives that present higher social status of entrepreneurs which would ultimately develop a consensus view among the people and would be accepted as a social value. The individuals' attitudes are influenced by their background demographic information including gender, age, geographic location as well as cognitive factors which include perceived capabilities, perceived opportunities, role model, and motivational aspects. Given the importance of these variables, I have considered individual perception, socio-cultural perception, and perception of economy important to include in my entrepreneurial intention model.

For measuring key elements of national entrepreneurial activity, GEM entrepreneurship data are primarily collected through two questionnaires namely the Adult Population Survey (APS) and the National Expert Survey (NES). These surveys are conducted annually between May and June and are comprised of a standardized questionnaire prepared by the GEM Global Data Team. In response to the requests submitted by each research team for participating in the GEM cycle, GEM provides the data in the English language.

The Adult Population Survey forms the core of the GEM methodology. The APS focuses on the collection of basic statistics on different aspects of entrepreneurship in a country and thereby, provides coherent evidence about personality traits, aspirations and motivations of entrepreneurs along with their activities in various stages of their entrepreneurship (including nascent to start-up ventures, established business and business discontinuation). As per requirement of the survey procedure, it is compulsory that every participant country surveys 2,000 individuals aging between 18 and 64 years every year. Complying with this requirement and having allocated as member of GEM Qatar, we have collected between 2,500 and 3,000 responses every year.

The NES survey, on the other hand, employs a set of identical and standardized questionnaire to obtain the informed views of national experts in different countries. Each country has their own panel of national experts of repute who express their views about the existing entrepreneurial ecosystem of their country. Their views are collected on the different aspects of the Entrepreneurial Framework Conditions (EFCs). The data acquired is then harmonized and subjected to internal audit prior to calculating various entrepreneurial indicators. It is therefore not surprising to observe that there are varying outcomes of entrepreneurial activities in

different nations owing to their diverse EFCs and variations in ecosystems. This diversity and variance can be gleaned from the fact that there are 36 experts allocated for each national team who serve the key source for information defining the status of EFCs in their respective countries. On the basis of received responses during the process of data collection, the GEM delivers harmonised data that is inclusive of both single- and multiple-item measures about EFCs which in turn suggests the combination of national perceptions demonstrated by the chosen experts.

As classified by GEM, there are multiple stages involved in the evolution and maturation of an entrepreneurial activity. These stages include conception of firm creation, start-up, business running, and established firm with growth during maturity stage (see **Figure** 4.2). To put it otherwise, the entrepreneurial activity is categorised as nascent, new firm, established firm, and discontinuation.

As exhibited in **Figure** 4.2, there is another category of "*exiting the business*" which indicates the stage when an individual quits the current business and switches to a new entrepreneurial activity by developing a new business in a different sector. This is alternatively referred as to discontinuation which is considered as an important stage of entrepreneurship because it includes significant information for the entrepreneurs who may be involved in current business category but can potentially start a new business. Their journey can be valuable source of inspiration and guidance for potential and other entrepreneurs currently involved in activities.

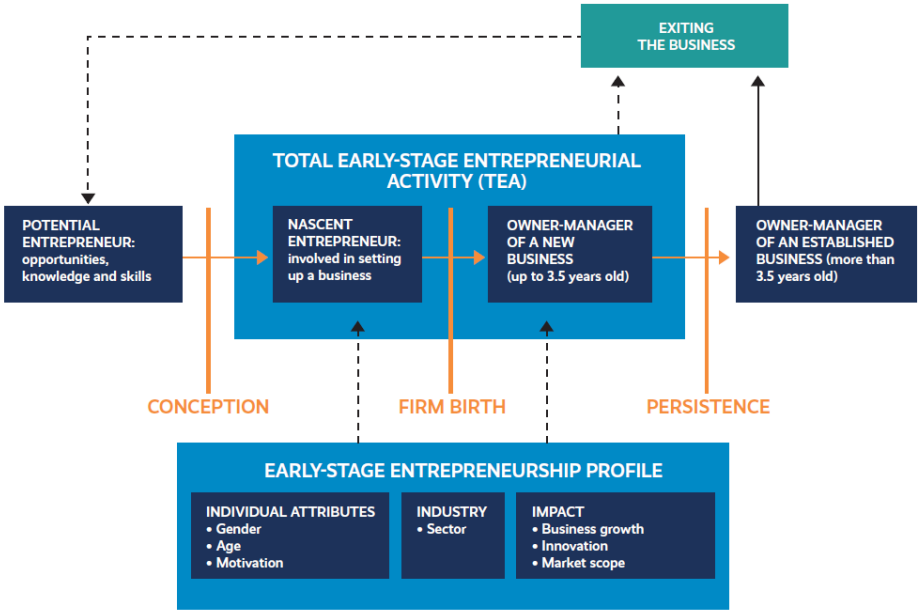

Figure 4.2. GEM's entrepreneurial phases

Source: Bosma et al., (2020, p. 26)

Total early-stage entrepreneurial activity (TEA) forms the foundation for comparative evaluation of entrepreneurial activities using GEM data. Empirically, TEA indices have been shown to be highly valid and reliable (Reynolds et al., 2005). Nascent entrepreneurs form the subset of entrepreneurs. Over the period of past 12 months, they are expected to share the responsibility and take tangible actions necessary for setting up a new venture. New business entrepreneurs are those who have initiated their venture and at least partly own and manage their business. New business owners are those who have paid salary for at least 4 months, and their entrepreneurship activities also contribute to the TEA.

Apart from these types of adult entrepreneurs, it is important to mention here how the APS survey is used to determine the entrepreneurial intention. For the present thesis, more questions have been added to the standard questionnaire of APS survey to make sure that the questions are well-aligned with the context of Qatar. These questions have been tailored to receive responses from adults in Qatar so that their entrepreneurial intention can be measured. These questions included in APS survey are expected to reflect the respondents' individual perceptions which are primarily evaluated by determining their need for achievement, risk-taking propensity, and locus of control. Within the intention model, the variables have been derived from APS survey.

4.2.1. Data Gathering

This section describes the procedure for obtaining quantitative data from the respondents. This includes the survey instruments, sampling methods and duration of the data gathering procedure.

4.2.1.1. Surveys Approach

A cross-sectional survey has been conducted through telephonic interviews from May to June 2019 in Qatar to explore the research questions. The sample survey was conducted via telephone, by contacting the respondents directly through their mobile phones using random digital dialling (RDD) method through a bilingual (English and Arabic) questionnaire. As estimated in 2019 by the World Bank[7], the ratio of mobile phone subscribers in Qatar is calculated at 138 per 100 residents. This justifies the inclusion of individuals aging between 18 and 64 years of Qatari adult population because this will make sure that there is an equal probability of their selection within the current study (Bernard, 2012).

For making sure that each response is received, there was at least 5 attempts of call to every generated number. When the respondent is busy, an appointment for reschedule the call has been fixed at his/her mentioned hour and day of convenience.

This method of survey was selected as the research strategy for two main reasons. Firstly, the GEM survey is a nationwide survey and provides a good representative of the adult population. Secondly, additional questions were included to determine the individual perceptions which provides insight to the personality traits of entrepreneurs who participated in the survey. The inclusion of personality traits in this study is supported by previous studies which explored the role of the personality traits to entrepreneurial behaviour. Furthermore, the methodological paradigm for the present thesis was anchored on previous literature which explored the same variables.

The additional questions to APS were drafted as per the original APS questionnaire, and thereafter translated into Arabic. To ensure that translated questions from the original draft in English exactly measure the same construct, a translation/back translation procedure was adopted using two independent professionals.

[7] *https://data.worldbank.org/indicator/IT.CEL.SETS.P2*

A pilot survey was conducted with 30 outside sample bilingual respondents. These respondents included individuals and academicians in order to verify the reliability and validity of the additional questions in Qatari context. This was also helpful to verify the content viability of common understanding of the questions and interpretation in both languages (Arabic and English).

4.2.1.2. Sample Design

As mentioned earlier, the sample for the first study is comprised of Qatari adults aged between 18 and 64 years. They have been evaluated to know who a potential entrepreneur is and who is already an entrepreneur engaged into an entrepreneurial activity. In order to receive their responses for their EI and entrepreneurship, the APS survey which includes additional questions to contextualise the questions for the sample selected in Qatar while studying their personality traits in relation to entrepreneurial intention is used for this thesis. The present thesis, therefore, uses a representative sample for testing the theoretical framework (Bernard, 2012).

A sample of 2,773 individuals was randomly selected from the adult population of 2,008,171 in Qatar aged between 18 and 64 years residing in the eight municipalities. A comprehensive overview of the adult population of different age groups residing across different municipalities in Qatar and the sample for first study has been provided in **Table** 4.1 and **Table** 4.2**,** respectively. The chosen sample is inclusive of people with all nationalities and genders living in Qatar. The large representative size of the sample in relation to the population was intended to cover all municipality, age group and gender and to give adequate representation of all possible entrepreneurship stages in the survey.

Table 4.1. Distribution of adult population in Qatar by age, gender, and municipality

Municipality	Male					Female					Total
	18-24	25-34	35-44	45-54	55-64	18-24	25-34	35-44	45-54	55-64	
Doha	86,860	252,491	169,304	87,055	32,997	22,590	79,480	46,700	22,503	8,389	**808,369**
Al Rayyan	56,537	129,773	81,753	42,302	16,523	17,988	46,315	35,591	17,016	7,109	**450,907**
Al Shamal	942	2,238	1,481	731	248	204	497	412	201	75	**7,029**
Al Khor	22,247	75,315	48,885	21,776	5,320	1,823	5,471	4,382	1,825	537	**187,581**
Um Salal	8,448	21,009	12,600	6,012	2,213	2,932	7,130	6,288	2,583	1,223	**70,438**
Al Wakra	30,653	97,758	63,021	28,954	9,314	4,565	15,164	9,690	3,498	1,235	**263,852**
Al Daayen	4,179	12,347	8,284	4,009	1,363	1,427	4,230	4,429	1,784	955	**43,007**
Al Sheehaniya	30,313	73,281	39,545	17,311	5,012	1,778	4,919	3,350	1,050	429	**176,988**
Total	**240,179**	**664,212**	**424,873**	**208,150**	**72,990**	**53,307**	**163,206**	**110,842**	**50,460**	**19,952**	**2,008,171**

Source: Panning and Statistics Authority

Table 4.2. Distribution of responses by age, gender, and municipality

Municipality	Male					Female					Total
	18-24	25-34	35-44	45-54	55-64	18-24	25-34	35-44	45-54	55-64	
Doha	100	356	259	116	37	56	160	67	32	6	**1,189**
Al Rayyan	73	178	117	52	17	36	81	45	17	4	**620**
Al Shamal	8	19	8	13	0	8	13	11	5	0	**85**
Al Khor	17	77	52	22	6	7	27	7	5	0	**220**
Um Salal	12	41	17	6	1	7	19	6	3	0	**112**
Al Wakra	38	118	69	34	8	27	41	16	3	1	**355**
Al Daayen	7	18	9	4	0	2	1	3	1	0	**45**
Al Sheehaniya	18	52	33	15	5	5	10	7	2	0	**147**
Total	**273**	**859**	**564**	**262**	**74**	**148**	**352**	**162**	**68**	**11**	**2,773**

In an attempt to filter out all responses with missing information for the selected variables, the depuration process was applied. Among 2,773 chosen participants, survey data was finalised for only 2,658 respondents because questionnaires with less than 80% response on personality scale questionnaire were rejected during initial data screening.

4.2.2. Variables

In the present thesis, the first data used has been obtained from 2019 GEM (Bosma et al., 2020). The APS provides key information about entrepreneurship of countries through comparative evaluation because this includes comprehensive and detailed data on entrepreneurial activities both nationally and globally. Therefore, it is of no surprise that this source of information has been extensively utilised for determining the stimuli of entrepreneurship in countries globally (Álvarez et al., 2014; Amorós et al., 2013).

Provided the fact that APS includes cognitive aspects of individual's personality, it allows evaluating their entrepreneurial intentions at a combined level (Reynolds et al., 2005). However, it is important to mention here that the determination of entrepreneurial intention is not included among the key objective of APS. Given this constraint, some variables are derived APS survey to develop the entrepreneurial model.

In the proposed entrepreneurial model, the dependent variable was entrepreneurial intention while the independent variables included socio-demographic profile (age, gender, education, and nationality), and perceptual factors such as individual perceptions (self-efficacy, role model, need for achievement, risk taking propensity and locus of control), perception of economy (perceived opportunity), and socio-cultural perceptions (high status, media attention and career choice). The succeeding sections described the aforementioned variables in detail.

4.2.2.1. Dependent Variables

The dependent variable in this study is entrepreneurial intention, which has reported as one of the variables of interest in the Global Entrepreneurship Monitor (GEM). Among other entrepreneurial attributes, entrepreneurial intention emerged to be an important parameter to explain why some countries are more "*entrepreneurial*" than other countries. Entrepreneurial intention has been investigated in previous studies (Ahmad et al., 2014; Guzmán-Alfonso & Guzmán-Cuevas, 2012; Liñán, Santos, et al., 2011; Tsai et al., 2016).

To measure **entrepreneurial intention** in this study, respondents were requested to answer "yes" or "no" the question:

> *"Are you, alone or with others, expecting to start a new business, including any type of self-employment, within the next three years?"*

4.2.2.2. Independent Variables

The APS data documented the distinctive behaviour and personality characteristics of adults in Qatar. In this survey, several items which have been included are consistent with variables used previously in studies involving variables of the theory of planned behaviour.

The independent variables which were examined for their explanatory effect on entrepreneurial intention in Qatar included individual perceptions, perception of economy, and socio-cultural perceptions. The first perceptual factor consists of the perceptions of "*self-efficacy*", "*need for achievement*", "*risk-taking propensity*", "*locus of control*" and "*role model*". The second independent variable consists of the perception towards "*perceived opportunity*". Finally, the third independent variable included perception of "*high status*", "*career choice*", and "*media attention.*"

For the three additional scales to the ASP questionnaire, a numerical value of 1 to 5 (and *5 to 1* for reverse-scored questions) relating to the "*does not describe me at all*" to the "*completely describe me*" scale. This strategy allowed the retrieval of direct answers when the participants are likely to respond the same option for most of the answers, thereby preventing response bias. The responses who refused to respond or provided incomplete responses were removed from the data set prior to statistical analyses.

The independent variables are herein discussed in detail, to justify their inclusion in the proposed entrepreneurial model.

> **Self-Efficacy:** This individual factor has been defined as the *capacity* of an individual to start a new venture based on Ajzen's Theory of Planned Behaviour (Ajzen, 1991). The operational definition of self-efficacy in this study is the "*perception of an individual's ability to start a new business venture*." The investigation of the role of self-efficacy for determining entrepreneurial intention has also been explored in other studies (Hsu et al., 2019; Wilson et al., 2007; Zhao et al., 2005). In this thesis, self-

efficacy for the entrepreneurship was determined by determining the level of agreement of the respondents to the statement below.

"*You personally have the knowledge, skill and experience required to start a new business*".

Respondents were requested to express their level of agreement to the statement in a 5-point Likert scale. The scale is:

1 "*Strongly disagree*"
2 "*Somewhat disagree*"
3 "*Neither agree nor disagree"*
4 "*Somewhat agree*"
5 "*Strongly agree*"

To determine the descriptive interpretation of the mean level of agreement, statement, the legend below was used.

1.00 to 1.79 – "*Strongly disagree*"
1.80 to 2.59 – "*Somewhat disagree*"
2.60 to 3.39 – "*Neither agree nor disagree"*
3.40 to 4.19 – "*Somewhat agree*"
4.20 to 5.00 – "*Strongly agree*"

Need for Achievement: According to McClelland (1971), the need for achievement is an individual's desire to excel and accomplish with respect to a set benchmark and to strive even further. Of all the personality traits associated with an entrepreneur, the need for achievement has the longest history (Shaver & Scott, 1992). These variables are established from four-item scale established and validated by Cassidy and Lynn (1989). For the present thesis, the Cronbach alpha coefficient measured for the scale was 0.82, which exceeds the threshold of 0.70 (Nunnally, 1978; Wetzels et al., 2009) which in turn, implies good internal consistency and reliability.

Respondents were requested to express their level of agreement to the statement in a 5-point Likert scale. The scale is:

1 "*Does not describe me*"
2 "*Describe me a little*"

3 "*Somewhat describes me*"

4 "*Describes me*"

5 "*Describes me completely*"

To determine the descriptive interpretation of the mean level of agreement, statement, the legend below was used.

1.00 to 1.79 – "*Does not describe me*"

1.80 to 2.59 – "*Describes me a little*"

2.60 to 3.39 – "*Somewhat describes me*"

3.40 to 4.19 – "*Describes me*"

4.20 to 5.00 – "*Describes me completely*"

Risk-Taking Propensity: Individual risk tolerance level has long been associated with an entrepreneur. In fact, risk-taking is considered to be an essential element in entrepreneurship (J. Block et al., 2015). The Cronbach alpha coefficient measured for the scale was 0.72, which exceeds the threshold of 0.70 (Nunnally, 1978; Wetzels et al., 2009) which in turn, implies good internal consistency and reliability.

Respondents were requested to express their level of agreement to statements in a 5-point Likert scale. The scale is:

1 "*Does not describe me*"

2 "*Describe me a little*"

3 "*Somewhat describes me*"

4 "*Describes me*"

5 "*Describes me completely*"

To determine the descriptive interpretation of the mean level of agreement, statement, the legend below was used.

1.00 to 1.79 – "*Does not describe me*"

1.80 to 2.59 – "*Describes me a little*"

2.60 to 3.39 – "*Somewhat describes me*"

3.40 to 4.19 – "*Describes me*"

4.20 to 5.00 – "*Describes me completely*"

Four propositions as put together by Gomez-Mejia and Balkin (1989) are used to measure this variable. Each item is answered by a five-point Likert scale scoring from 1 "*does not describe me*" to 5 "*describes me completely*".

Locus of Control: Locus of control is another personality trait commonly associated with an entrepreneur. It has been one of the comprehensively studied psychological personas in entrepreneurship research (Mueller & Thomas, 2001). Locus of control was introduced as a significant construct by Rotter in 1966 (Mueller & Thomas, 2001). This variable has been added to the APS survey and measured using a four-item reliable scale validated and used by Rotter (1966). Based on Cronbach alpha, internal consistency was determined to be 0.74, which exceeds the threshold of 0.70 (Nunnally, 1978; Wetzels et al., 2009) which in turn, implies good internal consistency and reliability.

Respondents were requested to express their level of agreement to statements in a 5-point Likert scale. The scale is:

1 "*Does not describe me*"
2 "*Describe me a little*"
3 "*Somewhat describes me*"
4 "*Describes me*"
5 "*Describes me completely*"

To determine the descriptive interpretation of the mean level of agreement, statement, the legend below was used.

1.00 to 1.79 – "*Does not describe me*"
1.80 to 2.59 – "*Describes me a little*"
2.60 to 3.39 – "*Somewhat describes me*"
3.40 to 4.19 – "*Describes me*"
4.20 to 5.00 – "*Describes me completely*"

Role Model: As mentioned in a previous study (Liñán & Chen, 2009), the respondents were asked about their perceptions about potential role models, which include family members, friends, and colleagues who endorse firm creation or motivate individuals to participate in entrepreneurial activity. These individuals were considered as the role

models for the respondents who wish to pursue entrepreneurial activity. In this study, the variable "*role model*" pertains to the number entrepreneurs that the respondent knows and has potentially influenced the intention to become an entrepreneur. This variable was based on the study Autio et al., (2001). Respondents answered the question "*how many persons known to you in person have created a firm or transitioned to self-employment during the last two years?*" The options were as follows:

0 for "*none*"

1 for "*one"*

2 for "*2 to 4*"

3 for "*5 and more*"

It was previously reported that role models are significant motivators among potential entrepreneurs (Amorós et al., 2013; Arenius & Minniti, 2005; Scherer et al., 1989).

Perceived Opportunity: When an individual recognises the economic opportunity, he is likely to be successful in his entrepreneurship goals (Shane & Venkataraman, 2000). It has also been established that there is a causal link between the perception of opportunities and the economic growth associated with the rise in entrepreneurship (Mota et al., 2019).

In the thesis, perceived opportunity was measured by asking the question "*in the next six months, do you see any potential of good opportunities for starting a business recognisable in your own locality?"* This question was based on the APS survey. Individuals who have perceived opportunities for setting-up a firm in their neighbourhood are expected to express entrepreneurial intention, and possibly keel their firms sustainable in the future. On the contrary, individuals who are unable to perceive entrepreneurial opportunities in their respective localities may not express entrepreneurial intention.

In measuring the level of agreement to the statement about "*perception of economy*," respondents were requested to express their level of agreement to the statement in a 5-point Likert scale. The scale is:

1 "*Strongly disagree*"

2 "*Somewhat disagree*"

3 "*Neither agree nor disagree*"

4 "*Somewhat agree*"

5 "*Strongly agree*"

To determine the descriptive interpretation of the mean level of agreement, statement, the legend below was used.

1.00 to 1.79 – "*Strongly disagree*"

1.80 to 2.59 – "*Somewhat disagree*"

2.60 to 3.39 – "*Neither agree nor disagree"*

3.40 to 4.19 – "*Somewhat agree*"

4.20 to 5.00 – "*Strongly agree*"

High Status: The theory of planned behaviour (Ajzen, 1991) considers that a favourable or unfavourable attitude toward a particular behaviour which in this case is firm creation is influenced by social norms that may prove either encouraging or discouraging. It is the social context that defines the acceptability or unacceptability of certain values. It is, therefore, quite reasonable to argue that the decision to create a firm is a social phenomenon and thereby, would seek societal approval. These social determinants are helpful to know the perceptions of individuals about whether their society treats entrepreneurship as a lucrative profession and ranks successful entrepreneurs of elite image and social status. To measure the high status of entrepreneur, I have used one item from the APS: "*In Qatar, the individuals succeeding in creating a firm are likely to enjoy a high level of status and respect.*"

In measuring the level of agreement to the statement about perception of entrepreneurship as something associated with "*high status*," respondents were requested to express their level of agreement to the statement in a 5-point Likert scale. The scale is:

1 "*Strongly disagree*"

2 "*Somewhat disagree*"

3 "*Neither agree nor disagree*"

4 "*Somewhat agree*"

5 "*Strongly agree*"

To determine the descriptive interpretation of the mean level of agreement, statement, the legend below was used.

1.00 to 1.79 – "*Strongly disagree*"

1.80 to 2.59 – "*Somewhat disagree*"

2.60 to 3.39 – "*Neither agree nor disagree"*

3.40 to 4.19 – "*Somewhat agree*"

4.20 to 5.00 – "*Strongly agree*"

Perception of Entrepreneurship as a Career Choice: Entrepreneurship represents one of the career choices that the individuals pursue for their self-employment inclination. For instance, an entrepreneur who was employed before transition to entrepreneurship and prefers to be self-employed (Katz, 1995; Kolvereid, 1996). The variable of career choice is considered with positive impact on the entrepreneurial activity (Klyver & Hindle, 2007). To measure the entrepreneurship as career choice, I have used one item from the APS: "*In Qatar, the overwhelming majority of the adults are found with an intention to create a firm while considering entrepreneurship as a desirable career choice*".

In measuring the level of agreement to the statement about perception of entrepreneurship as a "*career choice*," respondents were requested to express their level of agreement to the statement in a 5-point Likert scale. The scale is:

1 "*Strongly disagree*"

2 "*Somewhat disagree*"

3 "*Neither agree nor disagree*"

4 "*Somewhat agree*"

5 "*Strongly agree*"

To determine the descriptive interpretation of the mean level of agreement, statement, the legend below was used.

1.00 to 1.79 – "*Strongly disagree*"

1.80 to 2.59 – "*Somewhat disagree*"

2.60 to 3.39 – "*Neither agree nor disagree"*

3.40 to 4.19 – "*Somewhat agree*"

4.20 to 5.00 – "*Strongly agree*"

Media Attention: Due to the major influences of public media that it exerts on shaping human opinion, it is expected that the individuals can start developing their intentions of forming a new firm while getting inspiration from the success stories featured in the media. To measure the media attention in the entrepreneurial intention model, I have used one item from the APS: "*In Qatar, the electronic and social media coverage of successful businesses is adequately reasonable*".

In measuring the level of agreement to the statement about perception of entrepreneurship as associated with "media attention," respondents were requested to express their level of agreement to the statement in a 5-point Likert scale. The scale is:

1 "*Strongly disagree*"
2 "*Somewhat disagree*"
3 "*Neither agree nor disagree*"
4 "*Somewhat agree*"
5 "*Strongly agree*"

To determine the descriptive interpretation of the mean level of agreement, statement, the legend below was used.

1.00 to 1.79 – "*Strongly disagree*"
1.80 to 2.59 – "*Somewhat disagree*"
2.60 to 3.39 – "*Neither agree nor disagree"*
3.40 to 4.19 – "*Somewhat agree*"
4.20 to 5.00 – "*Strongly agree*"

4.2.2.3. Sociodemographic variables

In addition to the dependent variables that have been identified in the previous section, there are other factors that may also influence entrepreneurial intention. The scholars have suggested that the social demographic factors may influence the entrepreneurial intention (Ajzen, 1991; Arenius & Minniti, 2005; Fossen & Büttner, 2013; N. F. Krueger et al., 2000; Langowitz & Minniti, 2007; Shinnar et al., 2012). Thus, I have included several control variables to make sure that the results do not bear any unjustifiable influence of these factors. The socio-demographic variables of the individual (gender, age, education level and nationality) were included in the model for the prediction of entrepreneurial intention.

Gender: In the past research, it has been implicated that the participation ratio of women in entrepreneurship is comparatively much lower than of men (Arenius & Minniti, 2005; Langowitz & Minniti, 2007) and more men have founded firms than women (Arenius & Minniti, 2005). In the present thesis, gender was tested for its influence on entrepreneurial intention. The variable has been coded as 1 for "*female*" category and 2 for "*male*" category.

Age: In a previous study (Lévesque & Minniti, 2006), it has been found that younger individuals are more driven by their motivation of creating a firm than their older counterparts. Considering the inverse relationship of age to risk-taking activity, age has been selected as a sociodemographic variable to be linked with entrepreneurial intention, which has five subcategories: "*18-24*", "*25-34*", "*35-44*", "*45-54*", and "*55-64*".

Education level: The theory of planned behaviour (Ajzen, 1991) suggests that higher educational level leads to greater perception of control. Higher educational level influences capacity to start and sustain a new firm, which in turn, influences entrepreneurial intention. In the present thesis, level of education has three categories: "*High school degree or lower*", "*Bachelor's degree*" and "*Master's degree and higher*".

Nationality: Given the diversity of entrepreneurs in Qatar which are characterized by multitudes of personalities, motivations, risk-taking appetites and perception of entrepreneurial opportunities, "*nationality*" has been selected as another important sociodemographic variable to be investigated for its influence on entrepreneurial intention. Furthermore, Qatar has a strong dependence on expatriate workers for its economic growth due to their significant contribution to economic development for the past years. In this study, nationality is a dichotomous variable which includes two categories: "*Qatari citizens*" and "*expatriate residents*".

4.2.3. Data Analysis

In order to align with the purpose of the present study, several analyses were carried out to determine whether the hypotheses postulated were affirmed or rejected. Prior to these analyses, a data cleaning procedure was carried out. Assumptions for conducting binary logistic

regression were tested to verify the feasibility of the data for the selected method of analysis. Also, the scrutiny of descriptive characteristics of the participants along with bivariate correlations among study variables were also investigated to gain an insight on the characteristics of the participants and the nature of the relationship between study variables.

4.2.3.1. Descriptive Statistics

Frequency, mean, and standard deviations were used to describe the respondents' socio-demographic profile and mean responses in the scale variables (individual perception, perception of economy and socio-cultural perceptions).

4.2.3.2. T-test

To compare the individual perceptions, perception of economy and socio-cultural perceptions among respondents with entrepreneurial intentions and those without entrepreneurial intentions, independent T-test was conducted at $\alpha = 0.05$.

4.2.3.3. Chi square analysis

In order to determine significant association among categorical variables, chi-square analysis was conducted at $\alpha = 0.05$.

4.2.3.4. Binary Logistic Regression

Binary logistic regression modelling was conducted using entrepreneurial intention as the dependent variable. The independent variables included socio-demographic profile, individual perceptions, perception of economy and socio-cultural perceptions.

Prior to binary logistic regression analysis, variable multicollinearity was evaluated using three criteria: results in the correlation matrix, collinearity tolerance and variance inflation factor (VIF). These parameters are summarized in **Appendix A**.

The models which explain the likelihood of entrepreneurial intention were constructed using an iterative process. This procedure involved the addition of each of the variables in the following sequence:

Model 1: Independent variable: socio-demographic profile only

Model 2: Independent variables: socio-demographic profile and individual perceptions

Model 3: Independent variables: socio-demographic profile, individual perceptions, and perceptions of economy

Model 4: Independent variables: socio-demographic profile, individual perceptions, perception of economy, and socio-cultural perceptions

Model 5: Independent variables: All statistically significant predictors from four previous iterations

Model 6: Independent variables: All statistically significant predictors from four previous iterations and interaction terms

The iterative approach in binary logistic regression was adapted on the method utilized by Liñan et al., (2011). In their study, the first model included sociodemographic profile only, followed by the successive inclusion of individual perceptions, perceptions on the existence of entrepreneurial activities, and socio-cultural perceptions for Model2, Model 3, and Model 4, respectively. In this study, an additional iterative model (Model 5) was investigated using identified significant predictors from former binary logistic models. The last model (Model 6) involved interaction terms.

In the present thesis, model fit was evaluated using the model chi square. On the other hand, influence of independent variables to expressing entrepreneurial intention were investigated using Model Nagelkerke R^2 and model correct prediction. The selection of the most optimal model fit was performed using the Akaike Information Criteria (AIC) and Bayesian Information Criterion (BIC) (James et al., 2013). Binary logistic regression analysis was performed using STATA 13 (STATA Corporation, 2013) and SPSS 27 (Armonk, 2020).

Rationale for Logistic Regression Analysis

Logistic regression is widely used to predict the probable effect of a clearly defined dependent variable against the set of independent variables. In this study, binary logistic regression model was utilised to determine the magnitude and statistical significance of the predictor factors such as socio-demographic profile, individual perceptions, perceived opportunity, and socio-cultural perception to include predicted probabilities associated with a combination of variables.

Logistic regression analysis is a statistical method determines significant predictors to a categorical dependent variable. In this study, the utilization of binary linear regression predicts the outcome for a dichotomous categorical dependent variable, which is entrepreneurial intention. The analysis resembles the linear regression model, where the independent variable

X predicts the dependent variable Y. If the probability of Y falling into one of two categories is considered, we can write following equation:

$$p(X) = Pr(Y = 1|X) \quad (1)$$

Linear model solves the equation using the equation:

$$p(X) = \beta_0 + \beta_1 X \quad (2)$$

Linear regression cannot predict probability and the model may not restrict the dependent variable values within 0 and 1 (Fox, 2016; Kleinbaum & Klein, 2010). To avoid this issue, logistic function produces an S-shape curve which helps in obtaining a sensible prediction, as represented by the equation below.

$$p(X) = \frac{e^{\beta_0+\beta_1 X}}{1 + e^{\beta_0+\beta_1 X}} \quad (3)$$

Equation 3 can be reformulated as:

$$\frac{p(X)}{1 - p(X)} = e^{\beta_0+\beta_1 X} \quad (4)$$

The left part of equation 4 represents quantity and it is also called odds ratio. This ratio can take any values between 0 and ∞. Values close to 0 and ∞ can indicate very low and very high probabilities of *p*(X) and therefore logarithm of both sides must be taken for obtaining logistic regression model:

$$log\left(\frac{p(X)}{1 - p(X)}\right) = \beta_0 + \beta_1 X \quad (5)$$

With the estimates for beta coefficients (β_0 and β_1) that are unknown, maximum likelihood function helps in estimating these coefficients and plugging them into model for *p*(X) (Hosmer Jr et al., 2013). Likelihood function is written as:

$$l(\beta_0, \beta_1) = p(X)\big(1 - p(X)\big) \quad (6)$$

Although binary logistic regression is essential for the analysing the influence of different variables on entrepreneurial intentions, this model can be filled with interaction terms. The

involvement of interaction terms will help to see whether interaction among some variables can help in improving a model or not. For that purpose, following equation was used:

$$log\left(\frac{p(X)}{1-p(X)}\right) = \beta_0 + \beta_1 X + \beta_2 (X_1 * X_2) \quad (7)$$

4.3. SECOND STUDY: SOCIAL IDENTITY OF ENTREPRENEURS

The second study focused on the Social Identity Theory. Using this theoretical framework categorizes entrepreneurs based on their choices and distinct entrepreneurial qualities. Some of these choices include what types of firms they aspire to create, the types of opportunities that they are attracted to, the distinct benefits they aspire to, the types of venture creation activities they engage in, and the distinct performance criteria that they apply to their activities overall (Fauchart & Gruber, 2011). The typology of business social identity has been famously attributed as "*Darwinian*", "*Communitarian*", and "*Missionary*" (Fauchart & Gruber, 2011). Therefore, entrepreneurs in Qatar will be evaluated for their social identity and the campaigns for promoting entrepreneurship in Qatar should be tailored in line with interests of three types of entrepreneurs.

The second study was addressed using an exploratory examination of the data using correspondence analysis to identify patterns differentiating different type of entrepreneurs' identities that entrepreneurs in Qatar hold. Additionally, I will also explore whether certain type of identities is more dominant compared to others. This will serve as the valuable lens through which entrepreneurial landscape is better understood in Qatar after knowing their intention in the present study. This study will be carried out using a cross-sectional questionnaire by adopting the Sieger et al., (2016) scale with some additional variables.

4.3.1. Data Gathering

In this second study, the entrepreneurs are the focus unit of analysis. It is required to obtain the data from the defined sample of entrepreneurs. The sample included the founders of small and medium enterprises (SMEs). Since the founders play an important role in SMEs, this explains the criteria for including these entrepreneurs which was derived from the conservative concept of businesses retaining a maximum of 250 employees with annual turnover of QAR 100 million equivalent to $24.7 million (Ayyagari et al., 2007).

4.3.1.1. Survey Approach

The second survey aimed to explore the link between entrepreneurs' need for social identity and entrepreneurial activities in Qatar. The survey was carried out on a sample of 620 entrepreneurs who have already established their business in Qatar in order to understand whether they have any need to be placed within specific social group and to what extent this need determined their venture initiation and established business activities.

4.3.1.2. Sample Design

The second survey was carried out to explore the link between the need for identity among entrepreneurs and entrepreneurial activities in Qatar. This survey used stratified sampling design. A stratified sampling method was used for this study with equal allocation from each stratum defined by the subsector. Within a stratum, sub-stratification was adjusted according to the size of the company. Each stratum had been assigned a total sample size of 270 companies (entrepreneurs). The distribution of samples by substratum took into consideration the size of the substratum.

Considering that most of the variables followed binomial distributions with the substratum forming the smallest domain of analysis, a sample size of 80 was deemed acceptable for each of the smallest sub-stratum. The sample increased with the size of the substratum. **Table** 4.3 gives the detailed information on sample sizes per sub-stratum.

Samples within each substratum were drawn randomly from the list of companies in the substratum.

Table 4.3. Distribution of population, sample and responses rate by sector and company size

Sector	Company size	Population	Sample	Responses	Response rate
Wholesale and retail trade	Micro	5,535	90	57	63%
	Small	8,386	100	90	90%
	Medium	2,432	80	48	60%
	Total	**16,352**	**270**	**195**	**72%**
Construction	Micro	682	90	18	20%
	Small	2,273	100	21	21%
	Medium	1,023	80	19	24%
	Total	**3,978**	**270**	**58**	**21%**
Manufacturing	Micro	1,010	90	19	21%
	Small	1,212	100	26	26%
	Medium	1,313	80	22	28%
	Total	**3,536**	**270**	**67**	**25%**
Accommodation and food services	Micro	870	90	33	37%
	Small	1,547	100	63	63%
	Medium	677	80	31	39%
	Total	**3,094**	**270**	**127**	**47%**
Agriculture, forestry, and fishing	Micro	2,571	90	9	10%
	Small	2,571	100	29	29%
	Medium	1,928	80	23	29%
	Total	**7,071**	**270**	**61**	**23%**
Others[8]	Micro	5,499	90	34	38%
	Small	3,999	100	54	54%
	Medium	667	80	24	30%
	Total	**10,165**	**270**	**112**	**41%**
Total	Micro	**16,167**	540	170	31%
	Small	19,989	600	283	47%
	Medium	8,040	480	167	35%
	Total	**44,196**	**1,620**	**620**	**38%**

[8] *The "Others" classification includes the following sectors: Transportation and storage; Administrative and support services; Professional, scientific and technical services; Other services; Education; Financial and insurance activities; Real estate; Human health and social work; Information and communication; Arts, entertainment and recreation; Water supply, sewage, waste management, etc.; Mining and quarrying.*

For the second survey, samples were randomly selected in each stratum. Thereafter, an appointment was scheduled with the owner of the company for face-to-face interviews or telephone interviews. Up to 5 call backs were done for the companies who did not respond to the call to set up an appointment. A pilot survey with 40 respondents was performed prior to the survey. The survey was conducted between October to December 2019. A total of 620 responses were obtained which gave a response rate of 38 per cent. Among 620 respondents, survey data was finalised for only 545 respondents because surveys with less than 80% response on social identity scale questionnaire were rejected during initial data screening.

The social identity of entrepreneurs was determined through a questionnaire. Specifically, a seven-point Likert by Sieger et al., (2016) was utilized to determine whether the entrepreneur is a pure "*Darwinian*", "*Communitarian*", "*Missionary*" or a hybrid social identity. A pilot survey was conducted with 40 respondents to determine initial reliability and repeatability of results. The survey questionnaire was originally drafted in English, and thereafter translated into Arabic.

4.3.2. Variables

The variables measured in this study were adopted from published studies. The variables investigated included social identity, business performance and demographic profile. These variables were obtained to characterize the entrepreneurs and determine the variables which describes the variables which associate directly with a specific social identity. This section presents the discussion of each variable.

4.3.2.1. Social Identity

As discussed in the literature review, this scale was already validated (Sieger et al., 2016). In the second study, the focus was on what was termed as the "*entrepreneur's frame of reference*" previously in the literature. Therefore, all the constructs were analysed with 7-point Likert scales which were consistent with existing tested scale developed by (Sieger et al., 2016). There are three types of identity identified in the scale namely Darwinian, Communitarian, and Missionary. There are six items in each identity underscored by three fundamental dimensions: "*basic social motivation*", "*basic self-evaluation*", and "*frame of reference*" (Sieger et al., 2016). These three concepts altogether create the founder's social identity (de la Cruz et al., 2018).

To verify the scale reliability, the Cronbach's alpha was used in the present thesis. It was found that the alpha values of reliability alpha were calculated for Darwinian (α= 0.94), communitarian (α= 0.76), and missionary (α= 0.85). Notably, these values exceeded the threshold of 0.70 (Nunnally, 1978; Wetzels et al., 2009) which in turn, implies good internal consistency and reliability.

4.3.2.2. Business Performance

A scale which measures business indicators such as business profitability, financial goal accomplishment and return of investment was performed using a questionnaire from the study of Morgan et al., (2009). Specifically, a three-item scale was constructed, and the scale of options was based on the methods described in previous studies (Dess & Robinson, 1984; Matsuno et al., 2002; Morgan et al., 2009). Data was obtained by requesting the respondents to submit a response for each performance indicator. This included their reaction to whether they perceived their current and past performance much worse, about the same, or higher in comparison to their market rivals. On a 7-point scale, they were asked to rank their current business performance for variables including business profitability, financial goal accomplishments and return on investment. The average of the respondent from all indicators was used as a general measure of the entrepreneurs' business performance.

The fundamental reason for utilising this subjective scale was inherited by the fact that the public may experience friction in knowing the precise information on how their firms would possibly demonstrate hindrances. Therefore, it is obvious to comprehend that the owners would not like to share their data of objective performance (Ward & Duray, 2000). On the other hands, the managers and the owners who are typically well-acquainted with performance data would prefer the subjective presentation (Choi & Eboch, 1998).

It is also indicated that the objective measures may reduce the accuracy and comparability of data (Dess & Robinson, 1984; Porter, 1979). Since a strong link exists between subjective and objective measure of a company's performance (Dess & Robinson, 1984), the utilisation of subjective performance data is undisputedly credible particularly when the objective data is not available. In the scale, there are five key questions included about business performance. These key questions seek to investigate profit growth, market share growth, sales growth, innovation character, and job creation.

Business performance was determined by obtaining the average of responses in the three items in the questionnaire. The calculation of their individual scores involved evaluation of their overall performance score (Dess & Robinson, 1984; Love et al., 2002). Respondents who provided higher ratings were interpreted to have better business performance. The reported Cronbach's alpha for business performance was determined to be 0.85, which exceeded the acceptable value of 0.70 (Nunnally, 1978; Wetzels et al., 2009). This indicates the internal consistency and reliability of the business performance scale.

4.3.2.3. Entrepreneur' demographic variables

In the previous studies (Hannan & Freeman, 1984; Newbert et al., 2013; Newbert & Tornikoski, 2013; Porter, 1979; Xu, 2013), it was found that the demographic variables including entrepreneurs' age, gender, education level, and nationality correlated with the social identity of entrepreneurs. This has received attention in the present thesis.

1) **Gender:** This is a binary variable in which "1" codes for "*female*" gender and "2" codes for "*male*" gender.

2) **Entrepreneur's age:** The entrepreneur's ages has been treated as range where "1" codes for the category "*below 36 years old*", "2" codes for "*36-50 years old*" and "3" codes for "*over 50 years*."

3) **Level of education:** Education is measured as the highest level of education that the founder has earned. The categorical codes include "1" for an educational attainment "*High school and below"*, "2" for "*Bachelor's degree*", and "3" for "*Master's degree and above*."

4) **Nationality:** This is a binary variable where 1 is coded for "*Expatriate residents*" and "2" is coded for "*Qatari citizens*."

4.3.2.4. Firm's characteristics

In the present thesis, the other variables including firm age, size and industry were also considered for the purpose of evaluation. The entrepreneurship research is quite inclusive of these control variables which have been applied extensively throughout (Antoncic & Hisrich, 2004; Stam & Elfring, 2008; Zahra & Garvis, 2000) owing to their possible influence on firm behaviour.

The respondents were asked to mention the year of firm creation which was useful in determining the firm age. They were also asked to state the number of employees and annual turnover. The options they need to select from included: the number of employees less than 10 and the turnover not exceeding than QAR 1 million (micro); 10-49 employees and turnover between QAR 1 to 20 million (small); 50-250 employees with turnover between 20 and 100 million (medium). The firms retaining employees higher than 250 with turnover more than QAR 100 million (large) were not considered in this study analysis because they do not meet the definition of SMEs as proposed by Qatar Development Bank (2019). Also, the respondents were asked to mention their firm's industry (Kraus et al., 2012).

1) **Business size:** The business size has been classified as per the SME definition stated above. Therefore, this variable has three categories, where 1 indicates a "*micro*" business size, 2 for "s*mall*" business size and 3 for "*medium*" business size.

2) **Business sector:** This included unordered polychotomous variables that have been coded as following: 1 for "*agriculture*", 2 for "*manufacturing*", 3 for "*construction*", 4 for "*trading*", 5 for "*food services*" and 6 for "*other services*".

3) **Business age:** This is comprised of an ordered polytomous variables and has 3 categories: 1 for "*below 4 years*", 2 for "*4 to 10 years*" and 3 "*above 10 years*".

4.3.3. Data Analysis

This section describes the analysis of data from respondents. Since the social identity was utilized to determine the identity of the entrepreneurs, a confirmatory factor analysis was carried out to affirm the psychometric properties of the instrument reported by Sieger et al., (2016). Bivariate associations were conducted using chi-square test and Fisher Exact test.

Multiple correspondence analysis was carried out to determine the correlation of all categorical variables.

This method involves simultaneous analysis of categorical variables which results to the generation of a biaxial plot that provides a straightforward determination of variables which closely associate with the main variable of interest, via proximity to the main variable of interest. Hence, the clustering of other variables to the variable of interest indicates the most optimal association (or correlation). Such analysis was utilized to determine the strongly associated (or correlated) variables with the social identity of the entrepreneur. This type of analysis has been described by Le Roux & Rouanet (2010).

4.3.3.1. Confirmatory Factor Analysis of Social Identity Questionnaire

Prior to multiple correspondence analysis, a confirmatory factor analysis was conducted on the social identity questionnaire reported by Sieger et al., (2016). The instrument for identifying social identity should have three dimensions corresponding to a pure type of social identities: *Darwinian*" social identity, "*Communitarian*" social identity, and "*Missionary*" social identity.

Fit index parameters such as chi-square (χ^2), root mean-square error of approximation (RMSEA), comparative fit index (CFI), normed fit index (NFI) were evaluated. Furthermore, the factor loadings of each item corresponding to each of the social identities and factor correlations were determined. The Cronbach alpha was also obtained to confirm the internal consistency of items per specific identity.

The determination of pure identity and hybrid identity were based on the suggestion of Sieger et al., (2016). A pure identity is indicated by having a score of 5 or greater in items corresponding to a specific identity, with other items corresponding to other identities are concurrently rated as 4 and below. A pure identity may correspond to "*Darwinian*", "*Communitarian*" or "*Missionary*." Similarly, a dihybrid identity was identified if a respondent answered 5 or greater in all items corresponding to two identities, while concurrently answering 4 or lower in at least one item corresponding to another identity. Dihybrid identities were classified as "*Darwinian-Communitarian*", "*Darwinian-Missionary*" or "*Communitarian-Missionary*" identity. A trihybrid identity was identified if all items corresponding to the three pure identities were rated with 5 or greater. In such case, the entrepreneur is classified as "*Darwinian-Communitarian-Missionary*" hybrid. Lastly, an entrepreneur who answered 4 or lesser in at least one item corresponding to either "*Darwinian*," "*Communitarian*," or

"*Missionary*" identity was classified as "*Undetermined*" in this study. In the final analysis, all hybrids were categorized into one group prior to multiple correspondence analysis.

4.3.3.2. Chi-square Analysis and Fisher Exact Test

Bivariate associations were initially evaluated using either chi-square analysis or Fisher exact test to determine the non-random association of the categorical variables enumerated previously in this section with the social identity of the entrepreneur.

4.3.3.3. Multiple Correspondence Analysis

A typical analytic process usually involves a spatial mapping technique called Multiple Correspondence Analysis (MCA) which is used to investigate the relational composition of entrepreneur demographic variables in relation to firm characteristics variables that distinguish different type of social identity. This analysis aims to identify associations in the variables between different type of personalities and the entrepreneur's demographics and the characteristics of the firm that he has created.

Given the categorical nature of entrepreneurs and firms variables, Multiple Correspondence Analysis (MCA) was performed. MCA allows higher inductive approach relatively by facilitating the exploration into how the categories of variables correlate on a two-dimensional map. The main objective of MCA is to detect and describe structures called components between categorical variables. The categories with even distribution are marked as points with narrow space. On the other hand, the categories with odds distributions are located at far distance with wider space (Greenacre, 1984; Greenacre & Blasius, 2006). The number of dimensions is represented by the number of variables minus one. Typically, this is done by using Euclidean space (Greenacre, 1984). The MCA will be carried out on the social identity scales, the business performance, and the demographic variables of entrepreneurs as well as the firms.

Multiple correspondence analysis was employed to identity the correlation of categorical variables which reflect demographic qualities and firm characteristics that cluster together with the social identity of the entrepreneur, and performance of their respective business. This will be useful for profiling the entrepreneurs in Qatar in accordance with their social identity type. This involves considering all the significant attributes of their demographic as well as their company characteristics. This profiling will be carried out in a dimensional space of positions. For setting the dimension, a vector is identified that demonstrates the most influential social

identity score which is indicative of the positive and negative extremes. On the other hand, the less influential social identity is indicative of the middle point. With this technique in place, the inductive discovery of the structures inherent in the data is made possible. This also includes turning numeric tabular data into the graphic summary (typically on two or three axes) that facilitates interpretation and exploration (Rouanet et al., 2000). The variables selected for each of these axes and/or dimensions are deemed contributing to the most variance in the samples (Rouanet et al., 2000).

4.4. DATA ANALYSIS APPROACH

In both studies, the completed questionnaires were identified with unique distinctions. The data obtained from GEM project was entered with automatic mechanism when it was collected via tablets. However, the data collected for second study were first inserted into Excel files. Both data have been exported into SPSS to verify the data and the data cleansing was processed. While utilising the univariate technique, the analysis in the present study involved evaluating the respondents' demographic information and their questionnaire responses in relation to the subscales. This analysis also included measuring other values such as frequency tables, means, standard deviations, medians, minimum and maximum values, skewness, kurtosis, range, and interquartile range, to identify missing data and detect any data error. On the multivariate side, logistic regression for variables predicting entrepreneurship intention has been carried through STATA 13 (STATA Corporation, 2013). As for the second study, a multiple correspondence analysis was conducted through R software packages "*FactoMineR*" (Lê et al., 2008) and SPSS 27.0 (Armonk, 2020). The next chapter discusses the research findings derived from the data analysis of both studies while attempting to address the research questions.

5. CHAPTER FIVE: RESULTS

The previous chapter presented the variables investigated in this study, and the approach for identifying the variables which promote entrepreneurial intention, and determining the variables linked with social identities. In Study 1, the determination of explanatory variables linked to entrepreneurial intention was carried out using binary logistic regression analysis, In Study 2, the entrepreneurial and business characteristics linked to social identity were identified using multiple correspondence analysis. In this chapter, the results of the analyses for the two studies are presented.

5.1. FIRST STUDY - PREDICTORS OF ENTREPRENEURIAL INTENTION

This section exhibits the results of the logistic regression analysis to determine the significant predictors of entrepreneurial intention in Qatar. As asserted in the study, the predictors of entrepreneurial intention in Qatar may present a unique context contrasting or enriching previously developed models, contributing to the refinement of globally accepted models for supporting positive behaviour towards entrepreneurship.

The potential theoretical contribution of the study is on the unique composition and characteristics of entrepreneurs in Qatar. Furthermore, determining the significant factors which predict entrepreneurial intention in this study serves to provide an explanatory model which can be used as a reference by countries which are slowly shifting from being reliant on a dominant industry to being goal-driven in exploring alternative entrepreneurial opportunities. Lastly, this study provides a relevant framework for policies which promote entrepreneurship to individuals who display risk aversion amidst potential entrepreneurial opportunities.

5.1.1. Demographic Characteristics and Entrepreneurial Intention of Respondents

In this study, a total of 2,515 respondents, of whom 1,831 were males (72.8%) and 684 were females (27.2%) were recruited to answer the questionnaire. Based on **Table 5.1**, majority of the respondents belong to the 25 to 34-year-old bracket (*n* = 1,091, 43.4%). The rest of the respondents belong to the 35 to 44 years old bracket (*n* = 661, 26.3%), 18 to 24 years old bracket (*n* = 394, 15.7%), 45 to 54 years old bracket (*n* = 291, 11.6%), and 55-64 years old (*n* = 78, 3.1%), in decreasing frequency. Based on gender, the most respondents also belong to

the 25 to 34-year-old bracket, while the least number of respondents belong to the 55 to 64-year-old age bracket.

Moreover, majority of the respondent finished a Bachelor's degree program (*n* = 1,643, 65.3%) while 630 participants (25.0%) completed a high school degree or lower. The rest of the respondents have completed a master degree and higher (*n* = 242, 9.6%). Based on nationality, most respondents were expatriate residents (*n* = 1,737, 69.1%) while the rest of the respondents (*n* = 778, 30.9%) were Qatari citizens. The same observation was noted when respondents are classified based on gender.

One notable finding in this study is the differences in the number of male and female respondents who expressed entrepreneurial intention. Based on the results, more respondents expressed entrepreneurial intention in Qatar. However, the difference in the number of female respondents who expressed entrepreneurial intention compared to those who did not is much higher compared to male respondents.

Table 5.1. Demographic characteristics and entrepreneurial intention of respondents

Demographic Factors	Male		Female		Total	
	Frequency	%	Frequency	%	Frequency	%
Age (Years)						
18-24	254	10.10	140	5.57	394	15.67
25-34	767	30.50	324	12.88	1,091	43.38
35-44	510	20.28	151	6.00	661	26.28
45-54	233	9.26	58	2.31	291	11.57
55-64	67	2.66	11	0.44	78	3.10
Level of Education						
High school and below	448	17.81	182	7.24	630	25.05
Bachelor's degree	1,197	47.59	446	17.73	1,643	65.33
Master's and above	186	7.40	56	2.23	242	9.62
Nationality						
Qatari citizens	554	22.03	224	8.91	778	30.93
Expatriate residents	1,277	50.78	460	18.29	1,737	69.07
Entrepreneurial Intention						
No	898	35.71	292	11.61	1,190	47.32
Yes	933	37.10	392	15.59	1,325	52.68
Total	**1,831**	**72.80**	**684**	**27.20**	**2,515**	**100.00**

(N=2,515)

5.1.2. Association of Entrepreneurial Intention with Socio-demographic Profile

Table 5.2 shows the association of entrepreneurial intention with the socio-demographic variables examined in this study. The determination of association of demographic variable to entrepreneurial intention in this study was justified by Maalaoui et al., (2020) to verify whether individuals who expressed entrepreneurial intention and those who did not were homogeneous with respect to their demographic profile. Based on the results, entrepreneurial intention is significantly associated with gender, age, and nationality.

Table 5.2. Association of sociodemographic variables with entrepreneurial intention

Variable	Category	Entrepreneurial Intention				χ^2	p-value
		Frequency		%			
		No	Yes	No	Yes		
Gender	*Male*	898	933	49	51.0	8.066	**0.050**
	Female	292	392	42.7	57.3		
Age	*18-24*	212	182	53.8	46.2	12.310	**0.015**
	25-34	479	612	43.9	56.1		
	34-44	319	342	48.3	51.7		
	45-54	142	149	48.8	51.2		
	55-64	38	40	48.7	51.3		
Education	*High school and below*	306	324	48.6	51.4	1.909	0.388
	Bachelor's degree	762	881	46.4	53.6		
	Master's and above	122	120	47.3	52.7		
Nationality	*Qatari citizens*	450	328	57.8	42.6	50.050	**<0.010**
	Expatriate residents	470	997	42.2	57.4		

5.1.3. Comparison of Means in Perceptual Factors Based on EI

Table 5.3 shows the means of respondents among perceptual factors (individual perceptions, perception of economy and socio-cultural factors) based on entrepreneurial intention. To review, entrepreneurial intention has been selected as a main variable to be investigated in this study. As argued, entrepreneurial intention is an established antecedent of entrepreneurship, which is necessary for sustained economic growth. Since entrepreneurial opportunities are increasing in Qatar, it is also timely to determine the entrepreneurial intention of Qatar residents.

Respondents who expressed entrepreneurial intention and respondents who did not exhibited differences on individual perceptions, perception of economy and socio-cultural perceptions exhibited different levels of agreement in each perceptual factor. Based on the results, respondents who expressed entrepreneurial intention had a statistically significantly higher mean level of agreement in perception of "*self-efficacy*", "*need for achievement*", "*locus of control*", "*role model*", "*perceived opportunity*", "*high status*", "*media attention*", and "*career choice*". The highest mean level of agreement was observed in the perception of "*need for achievement*" among respondents who expressed entrepreneurial intention. In contrast, individuals who did not express entrepreneurial intention had higher level of agreement with the variable "*risk-taking propensity*."

Table 5.3. Mean of perceptual factors based on entrepreneurial intention

Variables	Entrepreneurial Intention				T-test	P-value
	Mean		SD			
	No	Yes	No	Yes		
Individual Perceptions						
Self-efficacy	3.46	3.93	1.47	1.33	-8.37	< **0.001**
Need for achievement	3.67	4.18	1.14	0.97	-12.00	< **0.001**
Risk-taking propensity	2.81	2.74	1.13	1.12	1.60	0.110
Locus of control	3.46	3.66	0.99	0.97	-4.95	< **0.001**
Role model	1.15	1.44	1.15	1.21	-6.18	< **0.001**
Perception of Economy						
Perceived opportunity	3.63	3.76	1.44	1.4	-2.16	**0.031**
Socio-cultural Perceptions						
High status	3.97	4.34	1.29	1.07	-7.81	< **0.001**
Media attention	3.72	4.15	1.34	1.15	-8.64	< **0.001**
Career choice	3.69	4.11	1.35	1.16	-8.23	< **0.001**

5.1.4. Mean of Perceptual Factors and Correlation of Variables

Table 5.4 summarizes the mean of perceptual factors (individual perceptions, perception of economy and socio-cultural perceptions) and intercorrelation matrix involving perceptual factors and sociodemographic variables. To review, the individual perceptions include "*self-efficacy*," "*need for achievement*," "*risk taking propensity*," "*locus of control*," and, "*role model*." Socio-cultural perceptions encompass perceptions on "*high status*," "*media attention*,"

and "*career choice*." Perception of economy only includes the perception of "*perceived opportunity*."

Among the individual perceptions, the highest mean was noted "*need for achievement*" (M = 3.94, SD = 1.08), followed by responses related to "*self-efficacy*" (M = 3.70, SD = 1.42, descriptive interpretation = "*somewhat agree*"), "*locus of control*" (M = 3.57, SD = 0.98, descriptive interpretation = "*describes me*"), "*risk taking propensity*" (M = 2.78, SD = 1.12, descriptive interpretation = "*somewhat describes me*"), and lastly, "*role model*" (M = 1.30, SD=1.19, descriptive interpretation = "*one*"). For socio-cultural perceptions, the highest mean was noted in perception of "*high status*" (M = 4.16, SD = 1.19, descriptive interpretation = "*agree a little*"), followed by perception of "*media attention*" (M = 3.95, SD = 1.26, descriptive interpretation = "*agree a little*"), and perception of "*career choice*" (M = 3.91, SD = 1.27, descriptive interpretation = "agree a little"). The variable "*perceived opportunity*" had a mean (M = 3.70, SD = 1.42) corresponding to a descriptive interpretation of "*somewhat agree*". The correlation matrix reveals the highest correlations among the scale variables is 0.037 demonstrates that there is not strong relationship between the independent variables. Therefore, no multicollinearity between the predictors (Hair et al., 2018).

Table 5.4. Descriptive statistics and correlations matrix

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Self-efficacy	3.70	1.42	1												
2. Need for achievement	3.94	1.08	.054**	1											
3. Risk-taking propensity	2.78	1.12	.097**	-.184**	1										
4. Locus of control	3.57	0.98	.052**	.289**	-.116**	1									
5. Role model	1.30	1.19	.264**	0.008	.064**	0.004	1								
6. Perceived opportunity	3.70	1.42	.239**	-0.021	0.033	-0.019	.101**	1							
7. High status	4.16	1.19	.099**	.085**	-0.027	.040*	0.037	.062**	1						
8. Media attention	3.95	1.26	.072**	.108**	-0.022	0.015	-0.002	.073**	.260**	1					
9. Career choice	3.91	1.27	.111**	.088**	-.043*	.041*	0.024	.150**	.283**	.232**	1				
10. Gender	-	-	-.156**	.065**	-.095**	-0.024	-.138**	-.045*	.061**	.096**	.069**	1			
11. Age	-	-	.054**	0.033	-0.026	.039*	.057**	0.016	-0.004	-0.003	-0.001	-.122**	1		
12. Education	-	-	.061**	.052**	.082**	.105**	.049*	-.047*	-0.011	0.002	-0.029	-0.032	.067**	1	
13. Nationality	-	-	0.025	.083**	.052**	.095**	-.112**	-0.033	0.000	.071**	0.026	-0.024	.043*	.136**	1

*Note: **Significant at P < 0.01; * Significant at P < 0.05 (two-tailed)*

5.1.5. Binary Logistic Regression

Binary logistic regression was performed to determine effects the different perceptions have on entrepreneurial intention Qatar. In this section, an iterative modelling analysis using binary logistic regression is presented. Prior to the logistic regression analysis, multicollinearity was evaluated using corelation analysis and collinearity diagnostics such as the tolerance indices (Tolerance) and variance inflation factors (VIF). A high correlation between and among variables suggest collinearity problem when testing the overall model (Sekaran & Bougie Roger, 2016) which leads to unreliable estimates of regression coefficients. Additionally, a high correlation between and among variables suggest the measurement of the same construct, which depicts redundancy. Based on the correlation matrix and the obtained VIF and tolerance values (see **Appendix A)**, there was no risk of multicollinearity associated with the intendent variables.

Table 5.5 presents the different models to predict the entrepreneurial intention in Qatar. The first model (**Model 1**) involves socio-demographic profile including gender, age, level of education and nationality, following the proposed first step in performing an iterative logistic regression modelling based on the following studies (Arenius & Minniti, 2005; Liñán, Santos, et al., 2011; Vodă et al., 2020). The results reveal that only gender and age (25 to 34 years old) showed a significant and positive influence on entrepreneurial intention among the respondents. The positive effect of gender indicates that female respondents are more likely to engage in entrepreneurship compared to males. Based on odd ratios in **Model 1**, females are 32% more likely to express entrepreneurial intention compared to males (*odds ratio, gender* $_{\mathbf{M1}}$ = 1.323, p = 0.002). Respondents in the age bracket of 25 to 34 years old are 49% are more likely to engage in entrepreneurship (*odds ratio, age* $_{\mathbf{M1}}$ = 1.493, p = 0.001). Lastly, expatriate residents are more likely to express intention to start a business by about 87% more than Qatari citizens (*odds ratio, nationality* $_{\mathrm{M1}}$ = 1.868, $p < 0.001$).

It has to be noted that in this study, there were more male respondents than female respondents. While the observations may be skewed by the population distribution of male and female respondents, it is worthy to note that more female entrepreneurs are projected to contribute to the roster of active entrepreneurs in Qatar for the next coming years. The results of this study present an important additional information that females also exhibit intention to start a business venture although the entrepreneurial intention may be influenced by the conditions where the female entrepreneurs are planning to start their business venture (Nikou et al., 2019). As for age, the significant positive coefficient for the 25- to 34-year-old bracket is supported by the

notion that risk-taking ability related to entrepreneurship is expected to decrease with age (Arafat et al., 2020).

In order to determine the role perceptual factors to the entrepreneurial intention of respondents in this study, the second iteration involved the inclusion of the individual perceptions as independent variables as well as the sociodemographic variables. To review, the individual perceptions included perceptions on "*self-efficacy"*, "*need for achievement"*, "*risk taking propensity*", "*locus of control*", and "*perception of role model*". The inclusion of individual perception factors with the socio-demographic profile of the respondents in **Model 2** resulted the emergence of other significant predictors aside from gender and age (25 to 34 years old subcategory). These other significant predictors included one subcategory of level of education, and nationality (Expat) among the socio-demographic variables. Among individual perceptions, the statistically significant predictors included perceptions on "*self-efficacy*", "*need for achievement*", and perception of "*role model*".

In **Model 2**, the coefficient for gender (male) had an increased coefficient while the coefficient for age (25 to 34 years old subcategory) decreased. However, the coefficients of both variables are still positive. The negative coefficient for the level education (under Master's degree and above subcategory) indicates that respondents who have a Master's degree or higher are less likely to exhibit entrepreneurial intention as compared to respondents who have a Bachelor's degree. Among individual perceptions, the coefficients for "*self-efficacy*", "*need for achievement*" and "*role model"* are positive and statistically significant. Based on magnitude, the perception for "*need for achievement*" had the highest coefficient, followed by the coefficient for perception of "*role model*," then lastly, the coefficient of the perception of "*self-efficacy*."

To shed light on the contribution of perception of "*need for achievement*" in **Model 2**, the distribution of responses based on gender and nationality were investigated, since gender and nationality were the two sociodemographic variables which significantly contribute to the model. Based on nationality, majority of the "*Qatari citizens*" and "*expatriate residents"* respondents also agreed that the items pertaining to "*need for achievement*" described them completely, as most respondents in both categories rated 5 in the items. Based on gender, it can be observed that the majority of male and female respondents agreed the items corresponding to "*need for achievement*" describes them completely.

Based on odds ratio in **Model 2**, the inclusion of individual perceptions increased the likelihood of females to embark in entrepreneurship to 50% (*odds ratio, gender* $_{M2}$ = 1.502, $p < 0.001$) more than males, which is a 36% increase from the odds ratio in **Model 1**. The odds ratio for age (age bracket of 25 to 34 years old), however, decreased by 17% (*odds ratio, age* $_{M2}$ = 1.408, $p = 0.008$), but this age group expressed higher entrepreneurial intention by almost 41%. Education (Master's and above) had a negative coefficient, with an odds ration less than 1 (*odds ratio, education* $_{M2}$ = 0.657, $p = 0.012$), indicating that individuals who have a Master's degree or above are less likely to express entrepreneurial intention by 34%. Based on nationality, the inclusion of individual perceptions also increased the odds ratio favouring expatriate residents (*odds ratio, nationality* $_{M2}$ = 1.932, $p < 0.001$), indicating that expatriate residents had 93% higher entrepreneurial intention compared to Qatari citizens.

With regards to individual perceptions, respondents who had higher perception of "*self-efficacy*" had almost 24% higher likelihood of embarking in entrepreneurship (*odds ratio, self-efficacy* $_{M2}$ = 1.236, $p < 0.001$) while those who viewed entrepreneurship as associated for the "*need for achievement*" are 75% more likely to express entrepreneurial intention (*odds ratio, need for achievement* $_{M2}$ = 1.408, $p = 0.008$).

On the third iteration of the binary logistic modelling, the sociodemographic profile and two perceptual factors (individual perception and perception of economy) were considered as the independent variables, whereas entrepreneurial intention was used as the dependent variable. Based on the significant coefficients identified in **Model 3**, the inclusion of perception of economy among the independent variables did not change the magnitude of the coefficients which were identified as statistically significant in **Model 2**.

In the third model, the variables gender, age (25-34-year-old subcategory), level of education (Master's degree and higher subcategory), perception of "*self-efficacy*," perception of "*need for achievement*," perception of "*role model*" remain to be statistically significant predictors to entrepreneurial intention. Furthermore, the coefficients remain the same for all independent variables, except for level of education, which slightly decreased.

Table 5.5. Logit models for predicting entrepreneurial intention

Independent Variables	Model 1	Model 2	Model 3	Model 4	Model 5
	Coefficient (SE)	Coefficient (SE)	Coefficient (SE)	Coefficient (SE)	Coefficient (SE)
Socio-demographic Profile					
Gender (female)	**0.28***	**0.41****	**0.41****	**0.31****	**0.30****
	(0.09)	(0.10)	(0.10)	(0.10)	(0.10)
Age (25-34)	**0.40***	**0.34****	**0.34****	**0.36****	**0.36****
	(0.12)	(0.13)	(0.13)	(0.13)	(0.13)
Age (35-44)	0.22	0.12	0.12	0.12	0.13
	(0.13)	(0.14)	(0.14)	(0.14)	(0.14)
Age (45-54)	0.23	0.07	0.07	0.09	0.09
	(0.16)	(0.17)	(0.17)	(0.17)	(0.17)
Age (55-64)	0.25	0.18	0.18	0.14	0.14
	(0.25)	(0.27)	(0.27)	(0.28)	(0.28)
Education (bachelor's degree)	-0.06	-0.18	-0.18	-0.17	-0.16
	(0.10)	(0.10)	(0.10)	(0.11)	(0.11)
Education (master & above)	-0.24	**-0.42****	**-0.41****	**-0.39****	**-0.37****
	(0.16)	(0.17)	(0.17)	(0.17)	(0.17)
Nationality (Expat)	0.63**	**0.66****	**0.66****	**0.64****	**0.65****
	(0.09)	(0.10)	(0.10)	(0.10)	(0.10)
Individual Perceptions					
Self-Efficacy		**0.21****	**0.21****	**0.18****	**0.18****
		(0.03)	(0.03)	(0.03)	(0.03)
Need for Achievement		**0.56****	**0.56****	**0.52****	**0.54****
		(0.05)	(0.05)	(0.06)	(0.05)
Risk Taking Propensity		0.00	0.00	0.01	
		(0.06)	(0.06)	(0.06)	
Locus of Control		0.06	0.06	0.06	
		(0.06)	(0.06)	(0.06)	
Role Model		**0.22****	**0.22****	**0.22****	**0.22****
		(0.04)	(0.04)	(0.04)	(0.04)
Perception of Economy					
Perceived Opportunity			0.03	-0.01	
			(0.03)	(0.03)	
Socio-cultural Perceptions					
High Status				**0.14****	**0.14****
				(0.04)	(0.04)
Media Attention				**0.17****	**0.17****
				(0.04)	(0.04)
Career Choice				**0.15****	**0.15****
				(0.04)	(0.04)
Constant	**-0.60**	**-1.56****	**-1.64****	-3.25**	**-3.28****
	(0.13)	(0.18)	(0.21)	(0.29)	(0.27)

**p<.05, **p<0.01; all in two-tailed tests. Standard errors are enclosed in parentheses.*
Full tables of each model are in the appendix

In order to determine the explanatory influence of the socio-cultural perceptions along with the previously included sociodemographic variables and perceptual factors (individual perceptions and perception of economy), the fourth iteration of the logistic regression modelling involved the socio-cultural perceptions, which include perception of "*high status*", "*media attention*" and "*career choice*". In the fourth model, the variables gender, age (25-34-year-old subcategory), level of education (Master's degree and higher subcategory), perception of "*self-efficacy*," perception of "*need for achievement*," perception of "*role model*" remain to be statistically significant predictors to entrepreneurial intention. In addition to these factors, the perception of entrepreneurship as something associated with "*high status*", "*media attention*" and "*career choice*" emerged as significant contributors for the prediction of entrepreneurial intention. It was apparent, however, that coefficients for the aforementioned sociodemographic variables and individual perceptions generally decreased except for the variable "*role model*," which has the same magnitude.

Model 5 combined the sociodemographic profile, individual perceptions, perception of economy and socio-cultural perceptions as independent variables in predicting entrepreneurial intention. Based on the fifth iterative modelling, the statistically significant explanatory variables were gender, nationality, perception of "*self-efficacy*", perception on "*need for achievement*", perception of "*role model*", perception of "*high status*", perception of "*media attention*", and perception of "*career choice*." While some variables including gender and level of education (Master's and degree above) had decreased magnitude of coefficients, nationality, and perception for "*need for achievement*" slightly increased. It can be noted that the coefficient of the other statistically significant variables had the same coefficients.

Based on the odds ratio of explanatory variables in **Model 4**, the odds ratio for gender, favouring females (*odds ratio, gender* $_{M4}$ = 1.360, p = 0.002) decreased compared to the odds ratio in **Model 3**, but the odds ratio for age (25 to 34 years old) increased (*odds ratio, age* $_{M4}$ = 1.433, p = 0.006). The odds ratio for education (Master's and above) also increased slightly but remained lower than 1 (*odds ratio, education* $_{M4}$ = 0.679, p = 0.023), which indicates that still, respondents who had a Master's degree and above are less likely to express entrepreneurial intention by 32%. For nationality, the odds ratio slightly decreased compared to the odds ratio in **Model 3** (*odds ratio, nationality* $_{M4}$ = 1.900, $p < 0.001$). The odds ratio for the perception of association of entrepreneurship with "*self-efficacy*" (*odds ratio, self-efficacy* $_{M4}$ = 1.201, $p <$ 0.001) and "*need for achievement*" (*odds ratio, need for achievement* $_{M4}$ = 1.686, $p < 0.001$) decreased, but the odds ratio indicates that the higher perception on these variables lead to

higher entrepreneurial intention by 20% and 69%, respectively. The odds ratio for the perception of association between entrepreneurship and "*role model*" slightly increased (*odds ratio, role model* $_{M4}$ = 1.249, $p < 0.001$).

Among the socio-cultural perceptions, the odds ratio for the association of entrepreneurship with "*high status*" (*odds ratio, high status* $_{M4}$ = 1.145, $p = 0.001$) indicates that a higher perception of high status increases the entrepreneurial intention by 15%. Similarly, a higher perception of association of entrepreneurship to "*media attention*" (*odds ratio, media attention* $_{M4}$ = 1.183, $p < 0.001$) increases the likelihood of engaging in entrepreneurship by 18%. Lastly, a higher perception on the association of entrepreneurship with career choice (*odds ratio, self-efficacy* $_{M4}$ = 1.166, $p < 0.001$) also increases entrepreneurial intention by almost 17%.

Table 5.6**.** shows the comparison **Model 5** and **Model 6** based on the beta coefficients and odd ratios of the statistically significant variables in predicting entrepreneurial intention. To review, **Model 5** only included all variables which were hypothesized to be linked to entrepreneurial intention among the respondents in Qatar. **Model 6**, on the other hand, included the interaction effects of selected variables. This modelling approach to include interaction of variables in constructing entrepreneurial models was also performed in the study of (Van Gelderen et al., 2015). In contrast to the binary logistic regression modelling in this study, the study of Van Gelderen et al., (2015), utilized a path modelling approach. The inclusion of variable interactions in the present study was performed to investigate changes on the magnitude of odds ratio for the various explanatory variables in the study.

After including the variable interactions in the model for predicting entrepreneurial intention, it was observed that the beta coefficients and odds ratio increased for gender (favouring males), nationality (favouring expatriate residents), perception on "*self-efficacy*", perception on "*role model*", perception on association of entrepreneurship to "*media attention*", and perception on the association of entrepreneurship with "*media attention*." However, the perception for the "*need for achievement*", perception on the association of entrepreneurship with "*high status*" and perception on entrepreneurship as a "*career choice*" decreased. It was also noted that age (25-34 category) was previously identified as a significant predictor of entrepreneurial intention in **Model 5**, but was no longer considered a significant predictor in **Model 6**.

When variable interactions are added to the model to create **Model 6**, it can be observed that females are three times more likely to express intention to start an entrepreneurial activity

compared to males (*odds ratio, gender* $_{M6}$ = 3.270). This is about 2.4 times greater to the odds ratio, when interaction variables were not included in the model (*odds ratio, gender* $_{M5}$ = 1.354). Qatari citizens, on the other hand are 93.2% less likely to express entrepreneurial intention compared to expatriate residents in **Model 5** (*odds ratio, nationality* $_{M6}$ = 1.930). However, the addition of variable interactions in the model resulted to an opposite finding, as expatriate residents are less likely to express entrepreneurial intention by 70.3% (*odds ratio, nationality* $_{M6}$ = 0.297).

When perceptual factors are compared, individual perceptions had higher odds ratio compared to socio-cultural perceptions in **Model 5** and **Model 6**. When interaction terms are added in the model, the odds ratio for perception for "*self-efficacy*," "*need for achievement*" and "*role model*" changed. For instance, respondents who expressed higher "*self-efficacy*" in Model 6 are 36.5% (*odds ratio, self-efficacy* $_{M6}$ = 1.365) more likely to be pursue entrepreneurial activity compared to Model 5 (*odds ratio, self-efficacy* $_{M5}$ = 1.201). Respondents who perceived that entrepreneurship is associated with the "*need for achievement*" were 47.8% more likely to express entrepreneurial intention in **Model 6** (*odds ratio, need for achievement* $_{M6}$ = 1.478), which is lower compared to the odds ratio for the same variable in **Model 5** (*odds ratio, self-efficacy* $_{M5}$ = 1.711). Lastly, respondents who expressed entrepreneurship as something associated with "*role model(s)*" were 63.8% more likely to express intention in **Model 6** (*odds ratio, role model* $_{M6}$ = 1.638), which is higher compared to the odds ratio in **Model 5** (*odds ratio, role model* $_{M6}$ = 1.248).

In contrast, respondents who agreed that entrepreneurship is associated with "*high status*" in **Model 6** had a meagre 9.7% increase in their likelihood of embarking on entrepreneurial activity (*odds ratio, high status,* $_{M6}$ = 1.097). This odds ratio for the same variable was lower compared to the odds ratio in **Model 5** (*odds ratio, high status,* $_{M5}$ = 1.146). Respondents who view that embarking in entrepreneurship results "media attention" are 27.7% more likely to become entrepreneurs (*odds ratio, media attention,* $_{M6}$ = 1.277) while respondents who viewed entrepreneurship as a "*career choice*" is 15.3% more likely to express entrepreneurial intention (*odds ratio, career choice,* $_{M6}$ = 1.153) in **Model 6**. In **Model 5**, The odds ratio of perception of "media attention" is lower (*odds ratio, media attention,* $_{M5}$ = 1.181), but the odds ratio for the perception of "*career choice*" is higher (*odds ratio, career choice,* $_{M5}$ = 1.165).

In **Model 6**, only two out of eight interaction terms are statistically significant contributors which promote entrepreneurial intention. Respondents who are expatriate residents and

associated entrepreneurship with the "*need for achievement*" were 83.9% more likely to become entrepreneurs (*odds ratio, nationality (expat) x need for achievement*, $_{M6}$ = 1.839) while female respondents who had greater number of "*role models*" were 27.6% less likely to express entrepreneurial intention (*odds ratio, gender (female) x role model*, $_{M6}$ = 0.734).

Table 5.6. Logit models measuring determinants of EI including interaction terms

Variables	Model 5				Model 6			
	β	SE	p	OR	β	SE	p	OR
Socio-demographic Profile								
Gender (female)	0.303	0.101	**0.003**	1.354	1.185	0.447	**0.008**	3.27
Age (25-34)	0.359	0.13	**0.006**	1.433	-0.139	0.277	0.616	0.87
Age (35-44)	0.125	0.14	0.374	1.133	0.186	0.262	0.478	1.205
Age (45-54)	0.089	0.17	0.599	1.093	-0.017	0.267	0.948	0.983
Age (55-64)	0.139	0.275	0.612	1.149	-0.023	0.284	0.936	0.977
Education (bachelor's degree)	-0.158	0.105	0.133	0.854	-	-	-	-
Education (master and above)	-0.369	0.169	**0.029**	0.692	-	-	-	-
Nationality (Expat)	0.649	0.096	**<0.001**	**1.913**	-1.215	0.556	**0.029**	0.297
Individual Perceptions								
Self-Efficacy	0.183	0.032	**<0.001**	1.201	0.311	0.065	**<0.001**	1.365
Need for Achievement	0.537	0.052	**<0.001**	1.711	0.391	0.059	**<0.001**	1.478
Role Model	0.221	0.038	**<0.001**	1.248	0.493	0.087	**<0.001**	1.638
Socio-cultural Perceptions								
High Status	0.136	0.039	**<0.001**	1.146	0.092	0.045	**0.038**	1.097
Media Attention	0.166	0.037	**<0.001**	1.181	0.244	0.083	**0.003**	1.277
Career Choice	0.153	0.036	**<0.001**	1.165	0.142	0.037	**<0.001**	1.153
Interaction Terms								
Gender (female) x Self-Efficacy					-0.128	0.072	0.077	0.88
Nationality (Expat) x Self-Efficacy					-0.141	0.075	0.061	0.868
Nationality (Expat) x Need for Achievement					0.609	0.132	**<0.001**	1.839
Gender (female) x Role Model					-0.309	0.092	**0.001**	0.734
Nationality (Expat) x Role Model					-0.163	0.089	0.066	0.849
Nationality (Expat) x High Status					0.172	0.094	0.067	1.188
Gender (female) x Media Attention					-0.172	0.088	0.051	0.842
Nationality (Expat) x Media Attention					0.146	0.085	0.084	1.158
Constant	-3.278	0.274	**<0.001**	0.038	-3.132	0.504	**<0.001**	0.044

Table 5.7**.** displays the goodness-of-fit of the logistic regression models based on Log-likelihood, Nagelkerke R^2, Cox & Snell R^2, AIC and BIC of the six logistic regression models. **Model 1** has a statistically significant model chi square ($\chi^2 = 318.627$, $\rho < 0.001$), but the model has only 4.0% of the likelihood of expressing entrepreneurial intention based on the computed Nagelkerke R^2. **Model 2** showed a statistically significant model chi square ($\chi^2 = 318.627$, $\rho < 0.001$), indicating that the model has a good fit. The model explained only 16% of the likelihood of expressing entrepreneurial intention when the explanatory variables are accounted for. The AIC and BIC results were also lower in the model compared to **Model 1**. This indicates that **Model 2** is a better-fit model compared to **Model 1**.

The third logistic model (**Model 3**) showed a model chi square ($\chi^2 = 319.27$, $\rho < 0.001$), indicating that the model has a good fit. The model explained 16% of the likelihood of affirming entrepreneurial intention, with all independent variables included the model accounted for. The AIC and BIC results were slightly higher compared to **Model 2**, indicating that the inclusion of the variable perception of economy may does not improve the over-all fit of the model.

Model 4 showed a statistically significant model chi square ($\chi^2 = 399.21$, $\rho < 0.001$) and model correct prediction for the relationship between the independent and dependent variable. The model explained 19% of the likelihood of expressing entrepreneurial intention when other explanatory variables are accounted for. The AIC and BIC results were also lower in the model compared to the previous three models, indicating that **Model 4** is a better-fit model compared to the previous models. It is worthy to note that the inclusion of a dummy variable in the model, education (Master's degree and above) warranted an investigation as it shows significant contribution to the model if all variables are accounted for. Based on the results, it is apparent that socio-cultural perceptions are considered as significant explanatory variables contributing to the whole model, with other variables accounted for.

Table 5.7. Goodness-of-fit statistics

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Chi-Squared	72.44*	318.63*	319.27*	399.21*	397.99*	456.36*
Log likelihood	-1,703.42	3,160.65	3,160.01	3,080.06	3,081.29	-1,509.35
Nagelkerke R^2	0.04	0.16	0.16	0.19	0.19	0.22
Cox & Snell R^2	0.03	0.12	0.12	0.14	0.14	0.17
% Correctly Predicted	64.6	64.6	64.6	67.6	67.8	68.6
AIC	3,424.85	3,188.65	3,190.01	3,116.07	3,111.29	3,064.70
BIC	3,477.32	3,270.27	3,277.46	3,221.01	3,198.74	3,198.79

** $p < 0.01$*

Model 5 has a statistically significant chi-square value ($\chi^2 = 397.21$, $p < 0.001$), with the model explaining 19% of the likelihood of expressing entrepreneurial intention. In addition, **Model 5** has even lower AIC and BIC values, which imply that the model has better fit compared to the previous four models. Lastly, the inclusion of interaction terms resulted to statistically significant chi-square and the lowest AIC value, making **Model 6** as the best fitting model explaining entrepreneurial intention. Furthermore, **Model 6** explains 22% of the likelihood of expressing entrepreneurial intention.

The hypotheses proposed in this study can be validated or rejected based on the results of the logistic regression models. In this study, hypothesis 1 proposed that male entrepreneurs are more likely to express entrepreneurial intention. In all models (**Model 1** to **Model 5**), it was evident that there are more male entrepreneurs who express entrepreneurial intention compared to females based on the beta coefficient. Even with the inclusion of interaction terms, male respondents had a higher predisposition to venture into entrepreneurship, *validating* hypothesis 1. Hypothesis 2 proposed that an increasing age decreases the expression of entrepreneurial intention. Based on the coefficients, only a subcategory of age (age 25 to 34 years old) was significant, indicating that younger individuals are more predisposed to venture into entrepreneurship, *validating* Hypothesis 2.

Hypothesis 3 proposes that higher educational level promotes entrepreneurial intention. In **Model 1**, where sociodemographic variables are only included, level of education was not a significant variable. However, the addition of perceptual factors among the independent variables in **Models 2** to **Model 6** resulted to a significant negative coefficient for the category

Master's degree and below, indicating that having a Bachelor's degree and below (lower category) exhibits higher entrepreneurial intention compared to other categories of level of education. Apparently, a higher level of education does translate to higher entrepreneurial intention, but a Master's degree may not be necessary. Thus, hypothesis 3 is *partially validated*.

Hypothesis 4: Nationality is associated with entrepreneurial intention. Based on the resulting models, nationality is indeed associated with the expression of entrepreneurial intention, validating Hypothesis 4. For hypothesis 5, it was proposed that higher perception of self-efficacy to start entrepreneurship is linked with higher entrepreneurial intention. The coefficient for perception for self-efficacy was significant and positive in **Model 2** to **Model 5**, even with the inclusion of interaction terms in **Model 6**. The results, therefore, *validates* Hypothesis 5.

Hypothesis 6 proposes that higher perception for "*need for achievement*" predicts entrepreneurial intention. Based on the results, the coefficient is positive and significant, indicating that an increased perception for the association of "*need for achievement*" does predict entrepreneurial intention. It can be noted too, that from **Model 2** to **Model 4**, the coefficient slightly decreases, but increases in **Model 5**. The results *validate* Hypothesis 6. Hypothesis 7 proposes that higher risk-taking propensity promotes entrepreneurial intention, while hypothesis 8 proposes that higher perception of locus of control predicts entrepreneurial intention. Based on the results, the coefficients for the variables "*risk-taking propensity*" and "*locus of control*" are not statistically significant. This implies that hypothesis 7 and hypothesis 8 are *rejected*.

Hypothesis 9 proposes that the perception of role model positively predicts entrepreneurial intention. Based on the coefficients on **Model 2** to **Model 5**, the coefficient was positive and significant. In addition, the magnitude did not change with the addition of other variables. The results suggest that hypothesis 9 is *validated*.

Hypothesis 10 proposes that a positive perception of the economy promotes entrepreneurial intention. However, the coefficient was not statistically significant, implying that hypothesis 10 is *rejected*. Hypothesis 11 proposes that perception of entrepreneurship as a symbol of higher status promotes entrepreneurial intention. Based on the results from **Model 2** to **Model 5**, the coefficient for the variable "*high status*" was positive and statistically significant. Based on the results, it can be surmised that indeed, perceiving entrepreneurs as having high status promotes entrepreneurial intention.

Hypothesis 12 proposes that the perception of entrepreneurship as an opportunity for higher media attention promotes entrepreneurial intention while hypothesis 13 proposes that the perception of entrepreneurship as a career choice predicts entrepreneurial intention. Both of these hypotheses are *accepted* since the coefficients for the variables "*media attention*" and "*career choice*" had statistically significant positive coefficients. The summarized results of the decisions for each hypothesis are shown in **Table** 5.8.

Table 5.8. Summary of hypotheses evaluation based on logistic regression modelling

Hypothesis	Statement	Decision
H1	Gender is associated with entrepreneurial intention.	*Accepted*
H2	Increasing age decreases an individual's entrepreneurial intention.	*Accepted*
H3	Higher education level promotes entrepreneurial intention.	*Partially accepted*
H4	Nationality is associated with entrepreneurial intention.	*Accepted*
H5	Higher perception of self-efficacy promotes entrepreneurial intention.	*Accepted*
H6	Higher perception for need for achievement predicts entrepreneurial intention.	*Accepted*
H7	Higher risk-taking propensity promotes entrepreneurial intention.	*Rejected*
H8	Higher perception of locus of control predicts entrepreneurial intention.	*Rejected*
H9	Having a role model positively predicts entrepreneurial intention.	*Accepted*
H10	A positive perception of the economy promotes entrepreneurial intention.	*Rejected*
H11	Perception of entrepreneurship as a symbol of higher status promotes entrepreneurial intention.	*Accepted*
H12	Perception of entrepreneurship as an opportunity for higher media attention promotes entrepreneurial intention.	*Accepted*
H13	Perception of entrepreneurship as a career choice predicts entrepreneurial intention.	*Accepted*

5.2. SECOND STUDY – SOCIAL IDENTITY OF QATAR ENTREPRENEURS

This section presents the results of the second study, which focused on the social identity of entrepreneurs in Qatar. The results highlighted the association of multiple categorical variables with entrepreneurial social identity using multiple correspondence analysis (MCA). The analysis also supported the identification of entrepreneurial characteristics and business profiles which are associated with pure social identities. The social identity of entrepreneurs has been identified using the scale developed and validated in the study of Sieger et al., (2016). Along with the scale, additional variables were also considered in the analysis to infer the entrepreneurial behaviour and appetite of entrepreneurs in Qatar, and support the development of policies which promote entrepreneurial activity. Confirmatory factor analysis was utilized to determine the factor loading of items into pure "*Darwinian*", pure "*Communitarian*", or pure "*Missionary*" social identities in the research instrument utilized in the study of Sieger et al., (2016). Chi-square analysis and Fisher Exact test were applied to provide an initial analysis of data prior to multiple correspondence analysis.

5.2.1. Demographic Characteristics of the Respondents

As shown in **Table** 5.9**.**, most of the entrepreneurs were male (*n* = 500, 91.7%) and consisting of entrepreneurs aged between 36-50 years old (*n* = 327, 60%). Most of the participants hold a Bachelor's degree (*n* = 353, 64.8%) followed by high school and below (*n* = 118, 21.7%) and master's and above (*n* = 74, 13.6%). Based on business size, 261 (47.9%) individuals reported that they have small businesses. 208 (38.2%) people reported that they have micro level businesses and 76 (13.9%) respondents reported that they have medium businesses.

Based on nationality, majority of the participants were Qatari citizens (*n* = 336, 61.7%*)* rather than being expatriate residents (*n* = 209, 38.3%). As for the age of the business, most of the participants stated that their business age was between 4 to 10 years (*n* = 218, 40%), followed by below 4 years (*n* = 172, 31.6%) and above 10 years (*n* = 155, 28.4%). Lastly, most respondents were entrepreneurs in trading sector (*n* = 198, 36.3%). 63 (11.6%) of them were entrepreneurs in the agriculture industry, 58 (10.6%) participants belonged to food sector, 53 participants (9.7%) belonged to construction and 44 (8.1%) participants belonged to manufacturing sectors.

Table 5.9. Demographic characteristics of the respondents

Characteristics	Variable	Category	Frequency	Percent
Entrepreneur characteristics	Gender	Male	500	91.7
		Female	45	8.3
	Entrepreneur's age	Below 36 years	104	19.1
		36 to50 years	327	60.0
		Over 50 years	114	20.9
	Level of education	High school and below	118	21.7
		Bachelor	353	64.8
		Master's and above	74	13.6
	Nationality	Qatari citizens	336	61.7
		Expatriate residents	209	38.3
Firm characteristics	Business size	Micro	208	38.2
		Small	261	47.9
		Medium	76	13.9
	Business sector	Agriculture	63	11.6
		Manufacturing	44	8.1
		Services	240	44.0
		Trading	198	36.3
	Business age	Below 4 years	172	31.6
		4 to10 years	218	40.0
		Above 10 years	155	28.4

5.2.2. Association of Social Identity with the Sociodemographic Variables

Table 5.10 shows the association of the variables with the social identity of the entrepreneurs. Based on the results, there was a statistically significant association between gender and social identity ($p < 0.001$). Male entrepreneurs greatly outnumber female entrepreneurs, with most respondents classified as "*Darwinians*" ($n = 186$, 34.13%), followed by "*Missionaries*" ($n =$

156, 28.62%) and "*Undetermined*[9]" (*n* =93, 17.06%), "*Hybrid*[10]" (*n* = 44, 8.8%) and "*Communitarians*" (*n* = 21, 4.2%).

Majority of female respondents, however, are "*Communitarians*" (*n* = 20, 3.67%) although few are also classified as "*Undetermined*" (*n* = 10, 1.83%) and "*Darwinians*" (*n* = 8, 1.47%). The variable entrepreneur's age also shows a statistically significant association with social identity ($p = 0.005$), and most respondents have firms that are categorized within the 36 to 50 age group (*n* = 327, 60%). The other age brackets (< 36 years old) and (> 50 years old) had almost similar distribution of respondents, accounting for 20.92% and 19.08% of the total population of the study. In all age groups of businesses, majority of respondents are classified as "*Darwinians*" (*n* = 194, 35.60%).

The entrepreneur's nationality also revealed a significant association with social identity ($p < 0.001$), with majority of respondents classified as Qatari citizens (*n* = 336, 61.65%). Out of 336 Qatari citizens, 129 (23.67%) respondents exhibited a "*Missionary*" social identity, followed by "*Undetermined*" social identity (*n* = 77, 14.13%), then "*Darwinian*" social identity (*n* = 56, 10.28%). In contrast, most expatriate residents (*n* = 138, 25.32%) exhibited a "*Darwinian*" social identity, followed by a "*Missionary*" social identity (*n* = 30, 5.50%), and "*Undetermined*" social identity (*n* = 26, 4.77%). Business sector also exhibited a statistically significant association with social identity ($p < 0.001$). Most respondents are active in entrepreneurial activities related to other services (*n* = 240, 44.04%) and trading (*n* = 198, 36.33%). Only 11.56% (*n* = 63) of respondents are in the agriculture industry, while 8.07% (*n* = 44) are in the manufacturing industry. Other variables, such as entrepreneur's level of education, business size, business age and business performance did not exhibit statistically significant association with entrepreneurial social identity.

[9] *"Undetermined" social identity was assigned to respondents who did not exhibit dominant "Darwinian", "Communitarian" and "Missionary" social identities. The guidelines in the study of Sieger et al. (2016) was used for identifying "Undetermined" social identity.*

[10] *"Hybrid" identities were assigned to respondents who had more than one dominant social identity and are sub-classified as "Darwinian-Communitarian," "Darwinian-Missionary," "Communitarian-Missionary," and "Darwinian-Communitarian-Missionary" social identities. The identification of hybrids was based on the guidelines in the study of Sieger et al. (2016).*

Table 5.10. Distribution of respondents based on social identity

Variable	Category	Social Identity					Total	Chi Square/ Fisher Exact test	*P*-value
		Darwinian	Communitarian	Missionary	Hybrid	Undetermined			
Entrepreneur's gender	Female	8	20	3	4	10	45	102.061	<0.001
	Male	186	21	156	44	93	500		
Entrepreneur's age	<36 years old	27	4	43	8	22	104	21.95	0.005
	36 - 50 years old	119	23	96	32	57	327		
	>50 years old	48	14	20	8	24	114		
Entrepreneur's level of education	High school	42	15	28	9	24	118	12.886	0.116
	Bachelor	119	22	107	34	71	353		
	Masters or above	33	4	24	5	8	74		
Entrepreneur's nationality	Expat	138	1	30	14	26	209	145.279	<0.000
	Qatari	56	40	129	34	77	336		
Business size	Micro	72	18	56	19	43	208	7.253	0.53
	Small	97	18	72	24	50	261		
	Medium	25	5	31	5	10	76		
Business age	<4 years	55	13	53	11	40	172	11.075	0.197
	4 to 10 years	79	12	70	20	37	218		
	>10 years	60	16	36	17	26	155		
Business sector	Agriculture	14	7	4	18	63	63	41.092	<0.001
	Manufacturing	1	14	2	8	44	44		
	Other services	16	84	24	42	240	240		
	Trading	10	54	18	35	198	198		
Business Performance	Low Performance	14	1	12	3	7	37	7.29	0.506
	Mod. Performance	59	19	42	14	28	162		
	High Performance	121	21	105	31	68	346		

5.2.3. Confirmatory Factor Analysis

In order to test the theoretical foundation of the scale which identifies entrepreneurial identity as described by Sieger et al., (2016), confirmatory factor analysis was performed using the three subscales which correspond to the three pure social identities – "*Darwinian*" social identity, "*Communitarian*" social identity, and "*Missionary*" social identity. Several parameters were utilized to determine the model fit. The normed fit index (NFI), comparative fit index (CFI) and root mean-square error of approximation (RMSEA) were selected as evidence of model fit, and are summarized in **Table** 5.11.

Table 5.11. Goodness of fit indices

Fit Index Parameter	Results
Chi-square (χ^2)	3.597
Degree of freedom (df)	126
Root Mean-square Error of Approximation (RMSEA)	0.069
Comparative fit index (CFI)	0.937
Normed fit index (NFI)	0.916

Values which are equal or greater than 0.90 for NFI and CFI are considered a good fit (Hair et al., 2018; Hu & Bentler, 2009) while RMSEA should be less than 0.08 (Hair et al., 2018). Based on the results of CFA, the fit indices of the model show an adequate good ness of fit, $\chi^2 = 3.597$ (N = 545 df = 126), $p < 0.01$; CFI = 0.937; RMSEA = 0.069 (CI of [0.062 – 0.076]). Based on the indices, the model fit is adequate. However, the reported CFI in the study of Sieger et al., (2016) was higher.

The standardized coefficients of items in the established research instrument which measures social identity (Sieger et al., 2016) are presented in **Table** 5.12, and the results suggest that the items corresponding to the subscale *"Darwinian*" social identity had > 0.70 standardized coefficients, while the items corresponding to the subscale "*Missionary*" social identity have coefficients ranging from 0.531 to 0.800, with four items having coefficients lower than 0.70 (item M_A5, M_A6, M_C5, and M_C6). All standardized coefficients of items corresponding to the "*Communitarian*" social identity were lower than 0.70. Based on Cronbach alpha, the internal consistency for items corresponding to "*Darwinian*" social identity is adequate (α=0.937). There is also adequate internal consistency of items corresponding to "*Communitarian*" social identity is (α=0.758). Similarly, the internal consistency of items

corresponding to the "*Missionary*" social identity is also adequate (α=0.852). Removal of one item from the total number of items corresponding to any of the pure social identities results to decreased Cronbach alpha values. The reported Cronbach alpha values exceed the threshold of 0.70 (Nunnally, 1978; Wetzels et al., 2009) which in turn, implies good internal consistency and reliability.

Table 5.12. Standardized coefficients and associated data

Subscale	Items	Standardized Coefficients	Standard Error	Cronbach's Alpha
Darwinian	D_A1	0.755*		0.937
	D_A2	0.816*	0.047	
	D_B1	0.886*	0.054	
	D_B2	0.890*	0.055	
	D_C1	0.916*	0.052	
	D_C2	0.792*	0.055	
Communitarian	C_A3	0.547*		0.758
	C_A4	0.543*	0.089	
	C_B3	0.670*	0.129	
	C_B4	0.583*	0.119	
	C_C3	0.475*	0.105	
	C_C4	0.510*	0.111	
Missionary	M_A5	0.531*		0.852
	M_A6	0.675*	0.095	
	M_B5	0.717*	0.097	
	M_B6	0.800*	0.126	
	M_C5	0.692*	0.108	
	M_C6	0.752*	0.113	

** p< 0.001*

The three-factor structure of the model is illustrated in **Figure** 5.1. Based on the figure, the instrument can discriminate three social identities, and each item corresponds to the specific social identity they are related to. Items per social identity also exhibited inter-item correlation. The factor correlation between the "*Darwinian*" social identity and "*Communitarian*" social identity is -0.27, while the factor correlation of the "*Darwinian*" social identity with "*Missionary*" social identity is -0.48. The factor correlation of the "*Communitarian*" social identity with "*Missionary*" social identity is 0.10. The factor correlations support a three-factor model in the analysis.

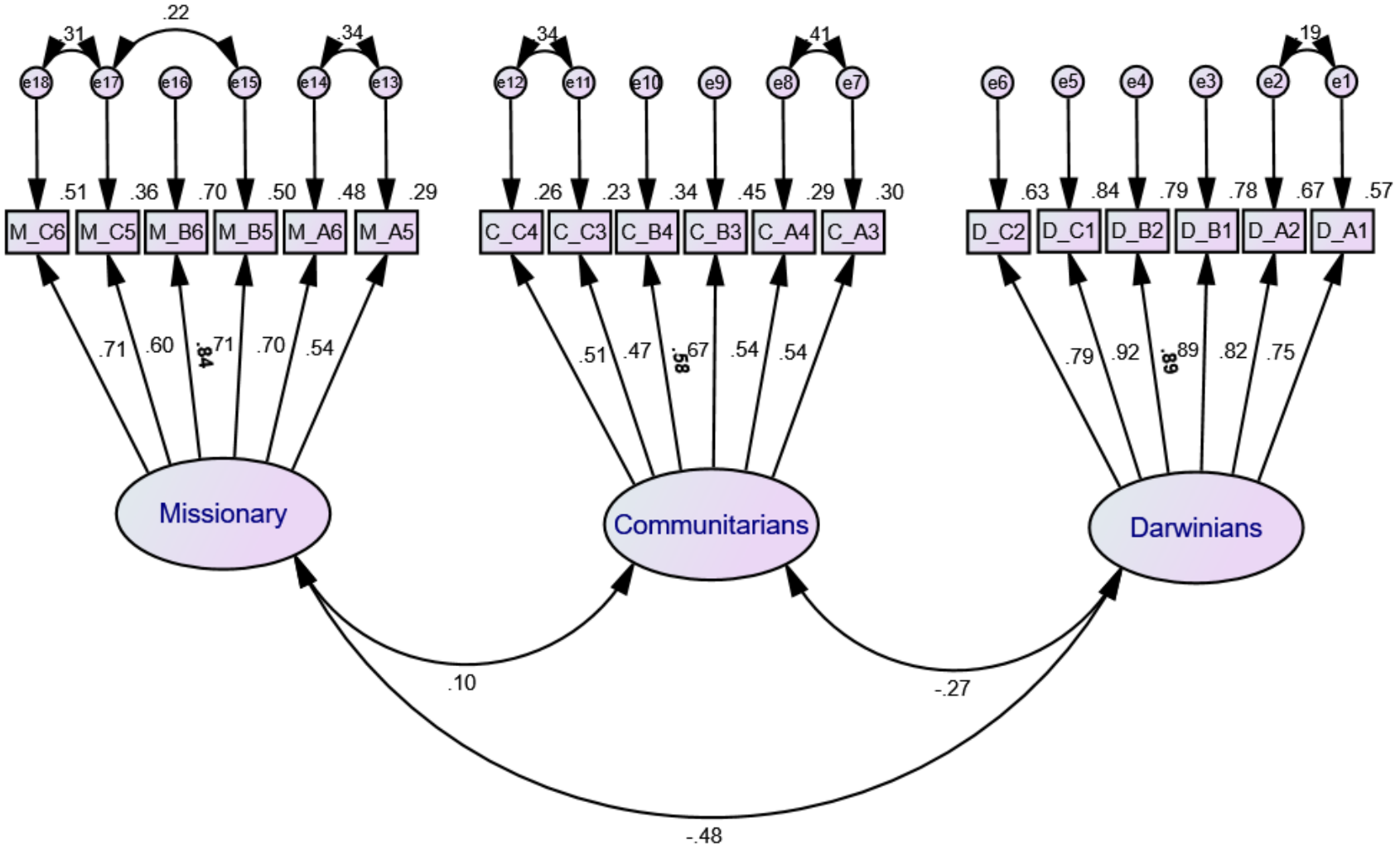

Figure 5.1. Path graph of the three-factor structure of the model in CFA

5.2.4. Multiple Correspondence Analysis

This section presents the results of the multiple correspondence analysis to determine the sociodemographic profiles associated with the social identity of entrepreneurs in Qatar. In this study, multiple correspondence analysis was utilized to determine the variables which are associated with a particular social identity. Multiple correspondence analysis (MCA) is a process which involves the reduction of the dimensionality of categorical variables. The MCA processes multiple exigencies using chi square distances, and then evaluates the variable relationships between the rows and between columns, as separate and joint analyses (Hoffman & De Leeuw, 1992). As a dimension-reduction method, it involves the measurement of the inertia or "*goodness-of-fit*" of data to determine the association of categorical variables (Hoffman & De Leeuw, 1992).

Prior to the analysis of the multiple correspondence analysis map, dimension reduction was performed to produce the most optimal graphical representation of the association of multiple categorical variables with the pre-identified social identities according to the Social Identity Theory as operationalized in this study – "*Darwinian*" social identity, "*Communitarian*" social identity, "*Missionary*" social identity, "*Hybrid*" social identity ("*Darwinian-Communitarian"* social identity, "*Darwinian-Missionary"* social identity, "*Communitarian-Missionary"* social identity), and "*Undetermined*" social identity. To review, the "*Undetermined*" social identity was assigned to respondents who did not exhibit dominant "*Darwinian*", "*Communitarian*" and "*Missionary*" social identities while "*Hybrid*" identities were assigned to respondents who had more than one dominant social identity using the validated research instrument in the study of Sieger et al., (2016).

A Scree plot (**Figure** 5.2) was constructed to determine the inertia of the first fifteen dimensions, which is a necessary step for dimension reduction. Inertia, in multiple correspondence analysis, refers to the spread of data around a centroid, and is considered as an important source of qualitative information in the analysis (Hoffman & De Leeuw, 1992). A Scree plot shows the percentage of unity from the number of the nonzero singular value of the indicator matrix. A sharp drop between two adjacent eigenvalues indicates the cut-off point, and is used as a basis for identifying how many principal components (or dimensions) to include, should an optimal representation of the MCA plot be presented (Hoffman & De Leeuw, 1992).

Figure 5.2. shows the dimensions present in the MCA plot. The sharp drop can be observed in the second dimension in **Figure** 5.2, justifying the decision to include two dimensions in the analysis. Over-all, the ten dimensions account for 89.8% of the total variance, for which the first two dimensions accounts for 20.3%. The first two dimensions can be used to explore the combination of variables which help explain the association of multiple categorical variables in this study.

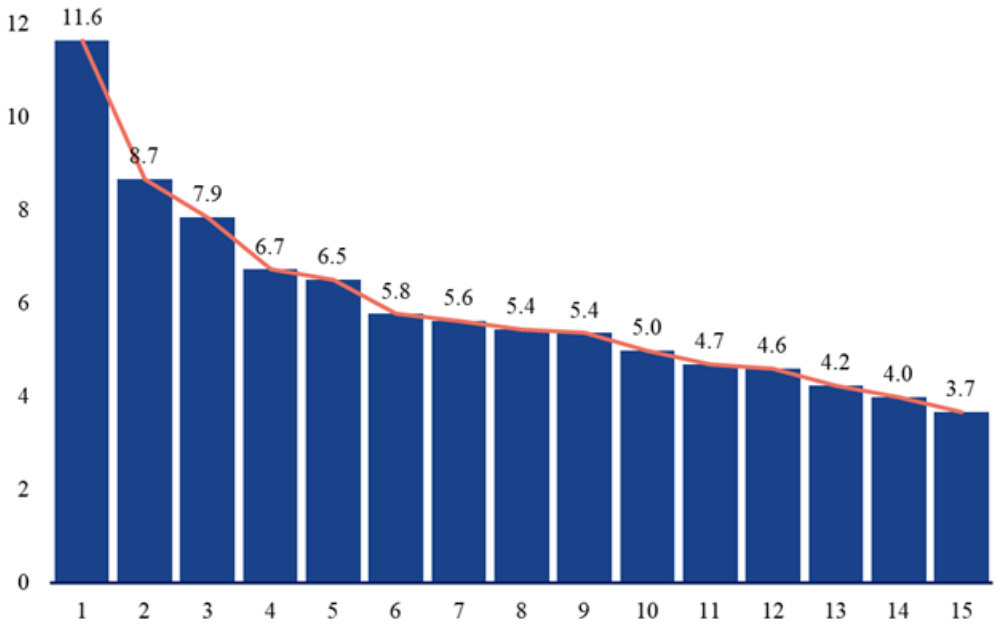

Figure 5.2. Scree plot for the first ten dimensions

Table 5.13 exhibits the eigenvalues and percentage of variance of the first 10 dimensions. Dimensions with larger variances exhibit higher eigenvalues. Eigenvalues represent the relative relevance of each dimension to the total inertia and is used as a parameter to select the maximum number of dimensions to be included in multiple correspondence analysis (Hoffman & De Leeuw, 1992). Based on the results, all ten dimensions had eigenvalues > 0.05, with the first and second dimensions explaining 11.6% and 8.7% of the total variance.

Table 5.13. Eigenvalues and explained variance for the top 10 dimensions

Dimensions	Eigenvalues	Percentage of Variance	Cumulative Percentage of Variance
1	0.246	11.649	11.649
2	0.183	8.679	20.328
3	0.166	7.864	28.193
4	0.142	6.727	34.920
5	0.138	6.522	41.441
6	0.122	5.778	47.219
7	0.119	5.634	52.853
8	0.115	5.444	58.297
9	0.113	5.368	63.665
10	0.105	4.986	68.651

Table 5.14 shows the variables which have the highest contribution to the first two dimensions based on the indicated R^2 value. It has to be noted that a high R^2 value suggests a strong association between a dimension and the variable, which implies that the variable loads to a particular dimension. Based on the results, the variables "*social identity*", "*business performance*" and "*entrepreneur's nationality*" emerged as the greatest contributors to Dimension 1. On the other hand, "*entrepreneur's age*", "*business sector*", "*business age*" and "*social identity*" were found out to exhibit the greatest contribution to Dimension 2.

The results in **Table** 5.15 shows that the first and second dimensions have eigenvalues of 2.214, and 1.649, respectively. The mean Cronbach's alpha of the MCA model is 0.454 while the first and second dimensions have a Cronbach's alpha of 0.495 and 0.408, respectively. The multiple correspondence analysis was applied, and variables were selected using the square cosine test. The square cosine (cos^2) is a measure of the quality of the variable or its "*goodness of fit*", and represents the distribution of the inertia of the variable across dimensions (Hoffman & De Leeuw, 1992). The value of cos^2 ranges from 0 to 1. All variables with $cos^2 > 0.2$ in at least one of the two first MCA dimensions were maintained.

Table 5.14. Significance of variables on each dimension

Dimension 1			Dimension 2		
Variables	R^2	P-value	Variables	R^2	P-value
Social Identity	0.695	< 0.001	Entrepreneur's age	0.433	< 0.001
Business Performance	0.656	< 0.001	Business Sector	0.350	< 0.001
Entrepreneur's nationality	0.510	< 0.001	Business Age	0.318	< 0.001
Entrepreneur's gender	0.180	< 0.001	Social Identity	0.308	< 0.001
Business Sector	0.091	< 0.001	Entrepreneur's education	0.149	< 0.001
Business Size	0.032	< 0.001	Entrepreneur's gender	0.028	< 0.001
Entrepreneur's education	0.020	0.004	Business Performance	0.033	< 0.001
Entrepreneur's age	0.016	0.013	Entrepreneur's nationality	0.019	0.001
Business Age	0.014	0.021			

Table 5.15. Eigenvalue of variables in Dimension 1 and Dimension 2

Variables	Dimension		Mean
	1	2	
Social Identity	**0.695**	**0.308**	0.434
Entrepreneur's gender	0.180	0.028	0.147
Entrepreneur's Age	0.016	**0.433**	0.156
Entrepreneur's Education	0.020	0.149	0.092
Entrepreneur's Nationality	**0.510**	0.019	0.206
Business Size	0.032	0.011	0.095
Business Sector	0.091	**0.350**	0.207
Business Age	0.014	**0.318**	0.155
Business Performance	**0.656**	0.033	0.294
Active Total	**2.214**	**1.649**	**1.785**
Percentage of Variance	**11.649**	**8.679**	**18.634**

The discrimination measures of category points indicate that dimension 1 has five variables which contribute to the dimension. The first variable, pertaining to "*social identity*", has a discrimination measure greater than 0.50, while the variables "*entrepreneur's nationality*", "*business performance*", and "*entrepreneur's gender*" also contributed to the first dimension

albeit having discrimination measures <0.50. The variables which have higher contribution to dimension 2 than in dimension 1 are "*entrepreneur's age*", "*business sector*" and "*business age*." However, social identity is also considered as a relevant contributor to dimension 2.

Figure 5.3 summarizes the variables and categories associated with the positive and negative axes of dimension 1 and dimension 2. Along dimension 1, the centroids found on the positive axis are the centroids for "*Communitarian*" social identity, female gender, Qatari citizens nationality, and moderate business performance. The centroids of categories on the negative axis include the centroid for "*Darwinian*" social identity, male gender, expatriate residents (expat) and high business performance. Along dimension two, the centroids which are located in the positive axis include centroid for "*Communitarian*" social identity, business related to agriculture, entrepreneur's age greater than 50 years old, and business age of greater than 11 years. On the other hand, the centroid of categories in the negative axis included the centroids for "*Missionary*" social identity, having a Master's degree, entrepreneur age of less than 35 years old, and business ventures related to other services.

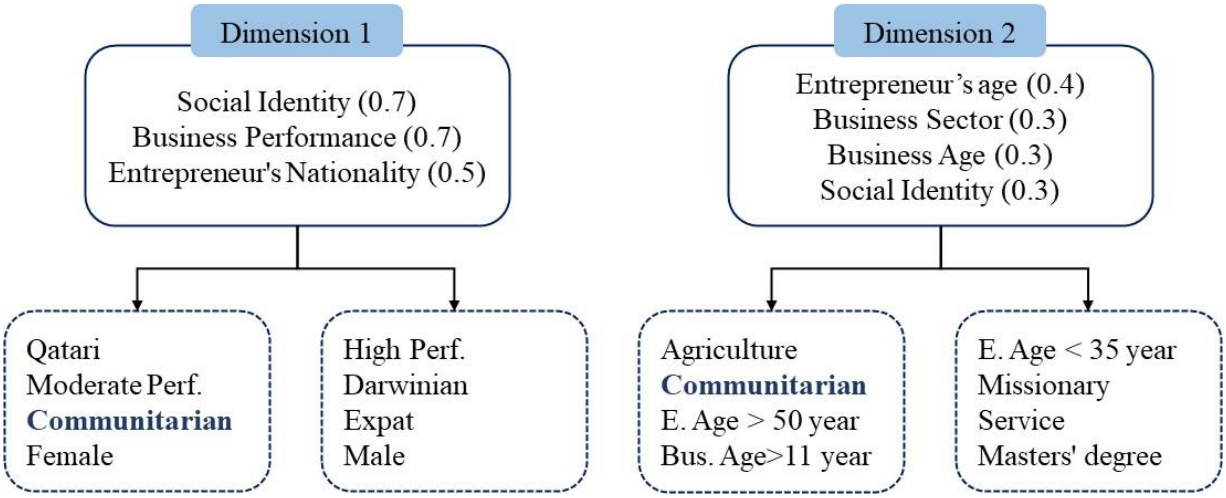

Figure 5.3. Positive and negative centroid coordinates for dimensions 1 and 2

Figure 5.4 shows the MCA plot for the centroids of variables in the analysis. The variable categories are assessed based the value of the square cosines on Dimension 1 and Dimension 2. Higher values of the cosines increase the projection of the category quality. Categories that are far from the origin are the most distinguishing category while categories closer to the origin are less discriminating. Variables which are clustered together are encircled to emphasize associations of variables. Along dimension 1, the "*Communitarian*" social identity was plotted on the right of the horizontal factor axis, while the "*Darwinian*" social identity was plotted on the opposite side. The "*Missionary*" social identity was proximal to the "*Communitarian*" social

identity, while the "*Hybrid*" social identity and "*Undetermined*" social identity do not diverge from the centre of the horizontal axis. Based on business performance, the "*high performance*" category is located on the left of the horizontal axis, while "*low performance*" category is on the right side. The "*moderate performance*" category is more proximal to the "low performance" category. Based on nationality, "*Qatari citizens"* are plotted on the right of the horizontal factor axis, while "expatriate residents" are on the left side. Based on gender, the category "*male*" is on the left side of the axis, while the category "*femal*e" is on the right side.

Figure 5.4 reveals that along Dimension 1, the entrepreneur's social identity clusters with specific entrepreneurial characteristics and business firm characteristics. In this study, there were five social identities used to classify entrepreneurs, based on the operationalization of the variable. These include the "*Darwinian*" identity, "*Communitarian*" identity, "*Missionary*" identity, "*Hybrid*" identity (*Darwinian-Communitarian, Darwinian-Missionary, Communitarian-Missionary*) and "*Undetermined*" identity. Based on the clusters in the MCA plot, the "*Darwinian*" social identity clusters with "*expatriate residents*" category for nationality, "*male*" gender, and "*high*" business performance. The "*Missionary*" social identity clusters with business ventures related to "*services*," having a Master's degree, and entrepreneur age of less than 35 years, and a business age of less than three years. A "*Communitarian*" social identity forms a cluster with female gender, Qatari citizens, "*low*" business performance and "*moderate*" business performance. The "*Hybrid*" and "*Undetermined*" social identities do not diverge from the central of the MCA plot, indicating that they may not provide useful information towards the analysis of associations of variables.

Along dimension 2 in **Figure** 5.4, the variable entrepreneurial age greater than 50 years old (E>50 year) is at the top of the vertical factor axis, while the entrepreneurial age less than 35 years old (E<35 years) is at the lowest region of the axis. Based on business sector, the category "*Agriculture*" is on the topmost side of the vertical axis while the category "*Services*" is on the opposite region. The categories "*Manufacturing*" and "*Trading*" are situated near the centre of the factor axis. Based on business age, the category "*business age greater than 11 years*" (B>11 years) is at the top of the factor axis, while the category "*business age less than 3 years*" (B<3 years) is at the bottom. Based on entrepreneur's education, the category "*High School*" is at the top of the factor axis, while the category "*Master's degree*" (Masters) is at the bottom of the axis. For business size, it can be observed that the category "*micro*", "*small*" and "*medium*" enterprises do not diverge from the centre of either horizontal or vertical factor axis. It is also

worthy to note that along the vertical factor axis, "*Communitarian*" social identity is at the top region, while the "*Missionary*" social identity is at the bottom.

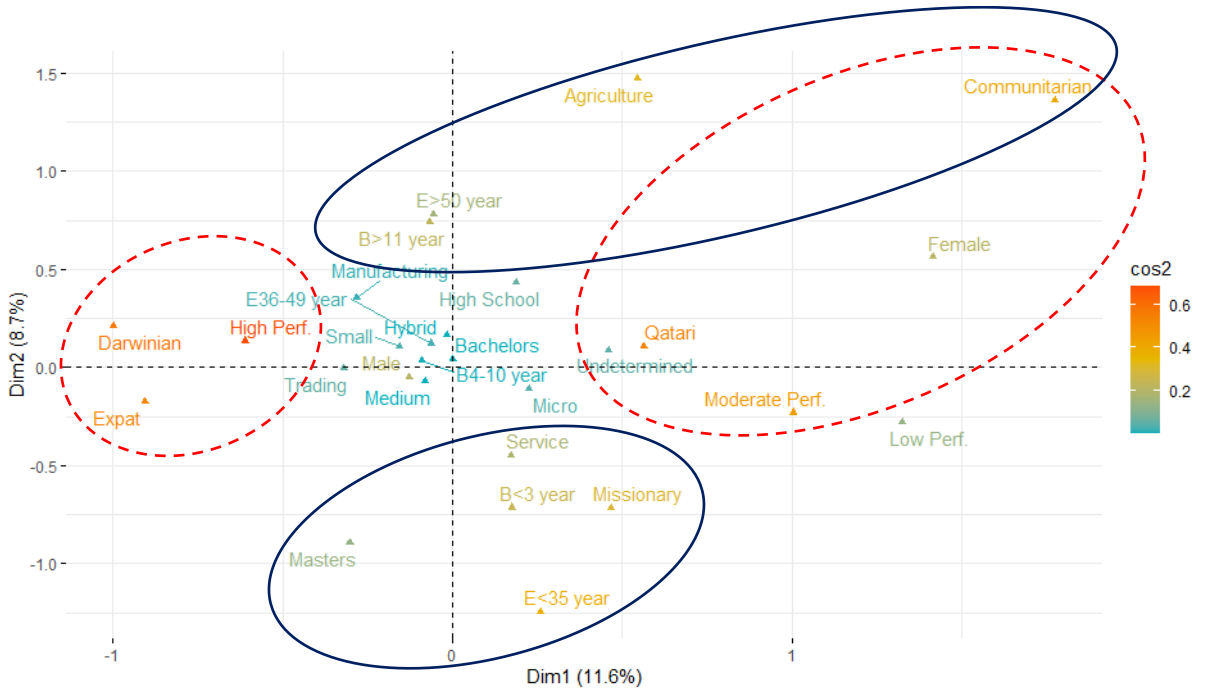

Figure 5.4. MCA plot for the variable categories on dimensions 1 and 2

When the analysis is based on a diagonal perspective spanning from the lower-left region towards the upper-right region of the plot in **Figure** 5.4 it can be inferred that female Qatari citizens have a passive entrepreneurial appetite while male expatriate residents are more aggressive towards income-generating business ventures. This explains why the "*Darwinian*" social identity is associated with business ventures which have high income returns while "*Communitarian*" and "*Missionary*" social identities are associated with business ventures which emphasize social impacts and lesser income returns. It can be assumed that social identities are influenced greatly by sociodemographic characteristics of entrepreneurs, business profiles, and over-all entrepreneurial environment which allow the interaction of the entrepreneurial and business characteristics. These findings warrant more elaboration in this study, since the data illustrates the current state of entrepreneurship in Qatar.

Additional analyses were performed to determine whether there are similarities or differences in the clustering of variable based on gender and nationality. This is justified by the observation on **Figure** 5.5**.** regarding the clustering of gender and nationality to specific social identities.

When variables were analysed simultaneously to determine the variables associated with social identity among male and female entrepreneurs, it was found out that a "*Darwinian*" social identity is associated with expatriate residents and high performing business ventures (**Figure** 5.5). A "*Communitarian*" social identity is associated with business ventures related to Agriculture, entrepreneur age of "*greater than 50 years old*", and business age of "*greater than 11 years*". A "*Missionary*" social identity is associated low- and moderate performing business ventures, and Qatari citizens.

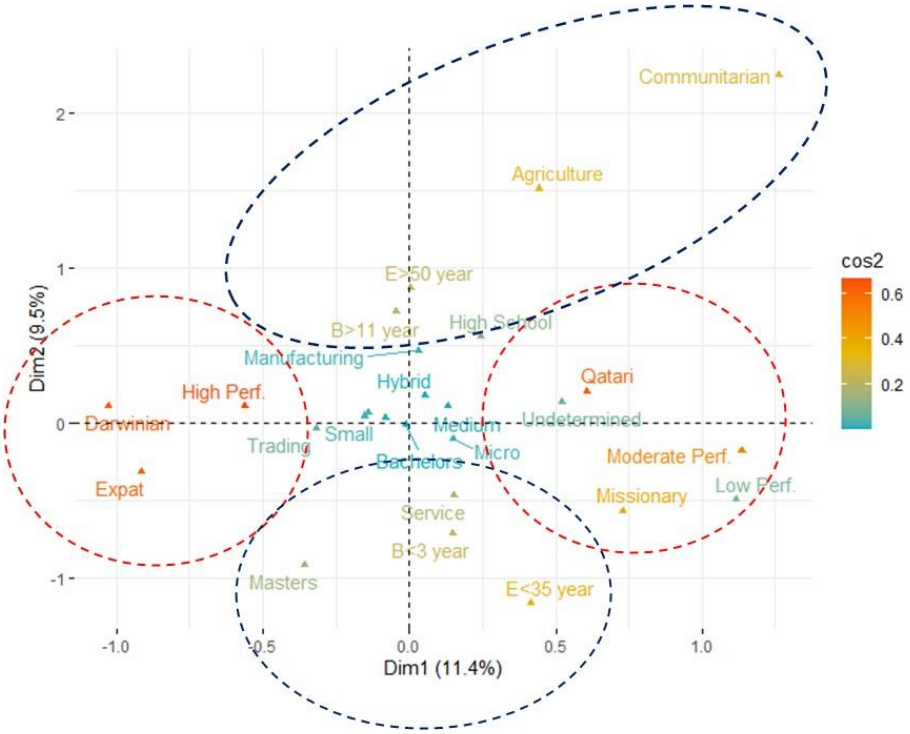

Figure 5.5. MCA plot for the variable categories on dimensions 1 and 2 among males

The MCA plot of variables which characterize female respondents are shown in **Figure** 5.6. Based on the MCA plot, a "*Darwinian*" social identity is clustered with high business performance, manufacturing, and expatriate residents among female entrepreneurs. The "*Missionary*" social identity clusters with business ventures related to "*Agriculture*", small business enterprises, and business age of greater than 11 years. The "*Communitarian*" social identity clusters with Qatari citizens, having a Bachelor's degree, low and moderate business performance, entrepreneur age of greater than 50 years old, and business age of 3 years old. It can also be observed that entrepreneur age of less than 35 years, entrepreneur age of 50 years, business age of less than 3 years, high school education, low-performing business, "*micro*"

business size, and low performing business form one cluster. The data on the R^2, eigenvalues and contributions of variables to dimension 1 and dimension 2 for the MCA plot of variables when contextualized to females are summarized in Appendix E.

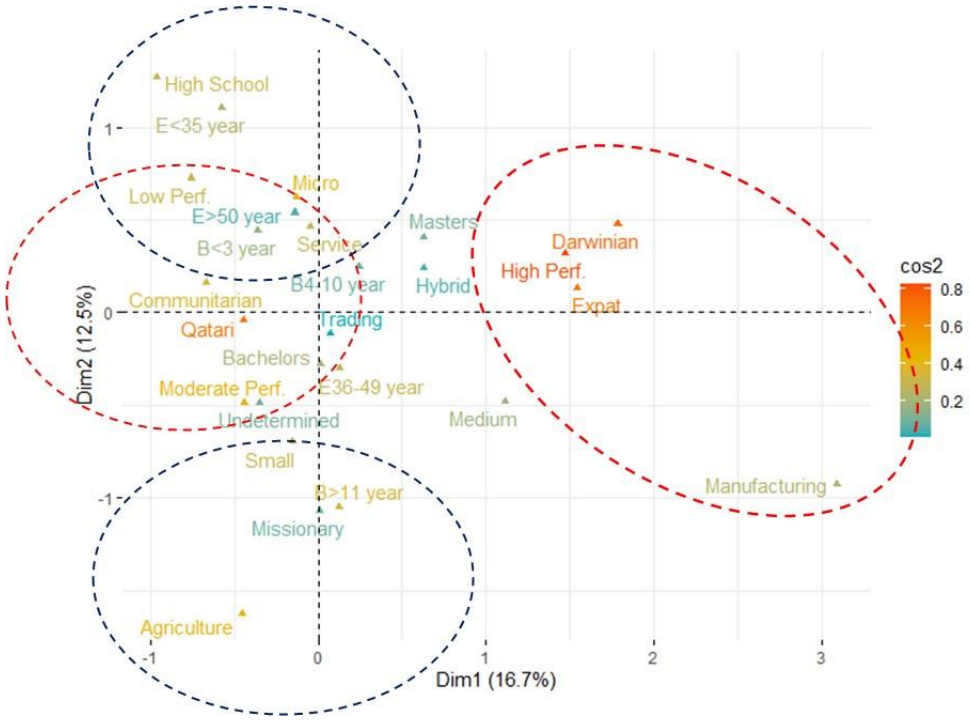

Figure 5.6. MCA plot for the variable categories on dimensions 1 and 2 among females

When categories of variables are analysed based on nationality, it was found out that among Qatari citizens, female gender is clustered with a "*Communitarian*" social identity while a "*Darwinian*" social identity was clustered with an entrepreneur's age greater than 50 years old, high performing business ventures, and business age of greater than 11 years (**Figure** 5.7). The "*Missionary*" social identity is clustered with male gender, business related to trading, and business age of 4 to 10 years, while the "*Communitarian*" social identity is clustered together with the female gender.

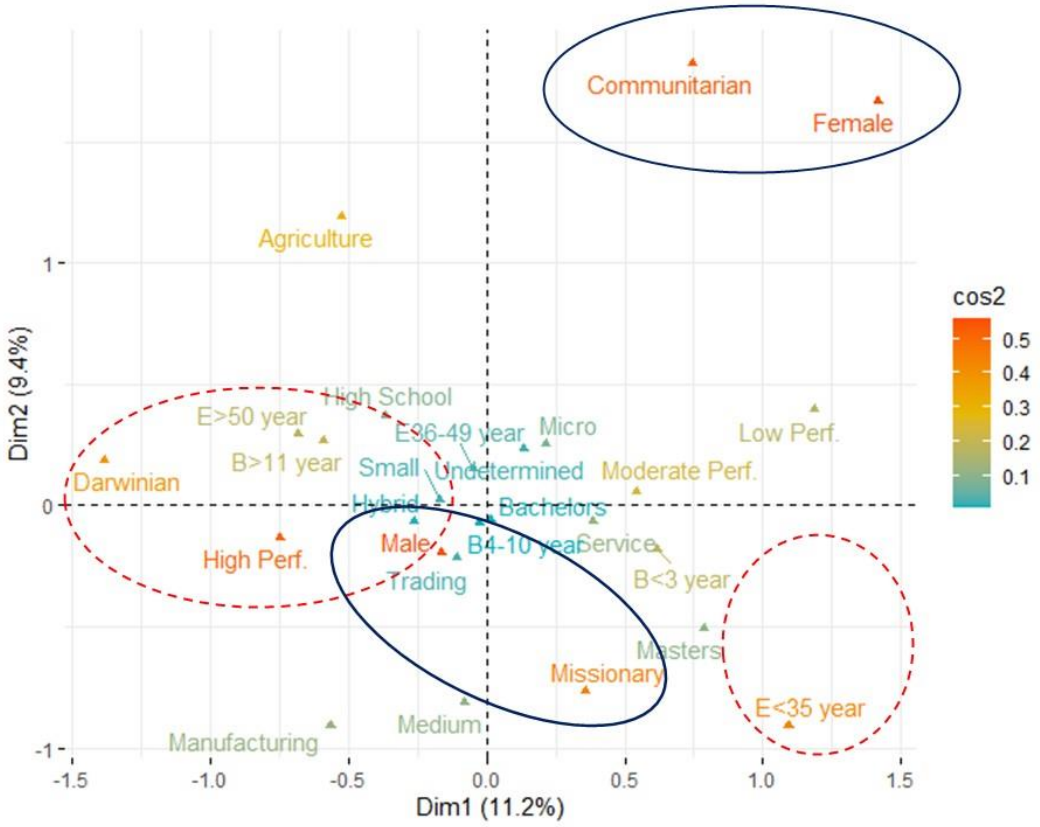

Figure 5.7. MCA plot for the variable categories on dimensions 1 and 2 among Qatari citizens

Among expatriate residents, there is no definitive cluster that has been observed. However, expatriate residents are less likely to exhibit "*Communitarian*" social identity, engage in in low performing business ventures or choose business related to agriculture. The "*Missionary*" social identity is clustered together with business with moderate performance. The rest of the variables are converging near the centre of the coordinate plot, indicating less distinctive associations. The data on the R^2, eigenvalues and contributions of variables to dimension 1 and dimension 2 for the MCA plot of variables, when contextualized to Qatari citizens and expatriate residents are summarized in Appendix Fand Appendix G , respectively.

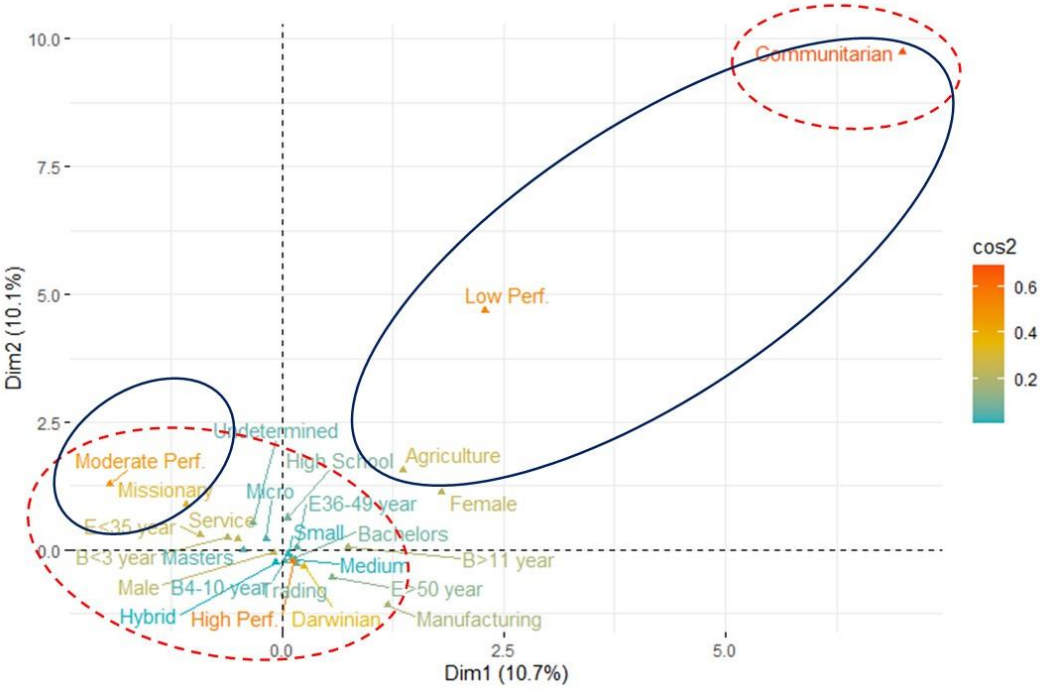

Figure 5.8. MCA plot for the variable categories on dimensions 1 and 2 among expatriate residents

6. CHAPTER SIX: DISCUSSION

This chapter discusses the outcomes of the binary logistic regression analysis which determined the explanatory variables linked to the entrepreneurial intention. Furthermore, this chapter will present multiple correspondence analyses which identified the entrepreneurial and business characteristics linked to the social identity of entrepreneurs in the context of Qatar.

The subject of entrepreneurship has long been perceived to be relevant to address sustainable progress in both developed and developing nations, due to the ability of entrepreneurs to promote innovation, technological progress, employment, and generally, economic growth (Fritsch & Wyrwich, 2017; Liñán, Rodríguez-Cohard, et al., 2011). Entrepreneurship can also help address the issues related to unemployment among individuals within their specific entrepreneurial milieu (Nyock Ilouga et al., 2014). In Qatar, entrepreneurship promotion is a priority economic policy (Costa & Pita, 2020; Ennis, 2015), and such drive has intensified towards the innovation largely due to volatility of oil and gas prices and perceived need to sustain the living standards for the next generation (Tok, 2020).

Qatar is joined by Saudi Arabia, Bahrain, Kuwait, Oman and UAE in receiving the high revenues from hydrocarbon industries (Tok, 2020). However, a high dependence on the oil and gas industry has pacified the need for diversification of business industries (Ennis, 2015). In recent years, however, the Government incentivized diversification of business opportunities towards manufacturing, banking, social services and tourism; although the hydrocarbon industry remains the main contributor to the rapid economic growth of the nation (Shachmurove, 2009).

Such behaviour is interesting to note since entrepreneurial activity was commonly associated with developing countries (Costa & Pita, 2020). However, it is largely expected due to the oil price shock in 2014 (Tok, 2020), which ignited the need to revisit the national policies to sustain the economic growth of the country and mitigate the challenges related to sustainability of resources (Costa & Pita, 2020). Furthermore, the potential of Qatar as an avenue for business start-ups may provide an opportunity to attract more people with high entrepreneurial capacity to contribute to a more progressive economic growth by opening and sustaining diverse business ventures. The entrepreneurial environment and cultural characteristics of Qatar contrast against western countries and other members of the Gulf Cooperation Council (Kebaili

et al., 2015), justifying the need for investigating the entrepreneurial intention and social identity in the country.

6.1. FIRST STUDY – ENTREPRENEURIAL INTENTION

Entrepreneurial intention has emerged as one of the commonly explored topics in entrepreneurial research (Hsu et al., 2019) as the intention to engage in entrepreneurial activity directly reflects the likelihood of an individual to pursue actual entrepreneurial activity (N. F. Krueger et al., 2000). In most studies, entrepreneurial intention is considered as a significant antecedent of actual entrepreneurial activity (N. F. Krueger et al., 2000) and is claimed to be shaped early in academic settings if the academic environment is propitious to encouraging entrepreneurial activity among students. In fact, most studies have investigated entrepreneurial intention among students in the academia (Al-Jubari et al., 2019; Choukir et al., 2019; Nyock Ilouga et al., 2014); as educational initiatives show a potential to attract more people to engage in entrepreneurship or express intention to start a business (Liñán, Rodríguez-Cohard, et al., 2011).

The current consensus in studying entrepreneurial intention is through the utilization of an intention-based modelling framework (Botsaris & Vamvaka, 2016) using hypothesized contributory dependent variables, with a particular emphasis on including perceptions of potential and existing entrepreneurs. However, including the perception-based predictors in the framework may increase the likelihood of expressing entrepreneurship in Qatar which is a justified approach in this study since current entrepreneurial environment is captured using perceptions, which influence intention and behaviour (Liñán, Santos, et al., 2011). As argued in this study, focusing on entrepreneurial intention using sociodemographic characteristics and perceptual factors results in contextualization of intention-based modelling to the demographics and entrepreneurial environment. Consequently, the model can be utilized to gauge the ability of potential and existing entrepreneurs to contribute to the economic growth of Qatar and predict the major sources of revenue and employment opportunities for the next two decades.

This study identified the variables which influence the likelihood of expressing the entrepreneurial intention in Qatar. As argued in this study, existing entrepreneurship models may not address the unique demographic profile and entrepreneurial environment in Qatar due to differences in contexts and sociocultural characteristics. This study revealed several interesting findings, warranting further discussions in the context of probing significant factors

which influence entrepreneurial intention. First, the study affirms that "*risk-taking propensity*", "*locus of control*" and "*perception of the economy*" do not influence the entrepreneurial intention. Second, increasing age was commonly associated with lower entrepreneurial intention (Maalaoui et al., 2020), but current study presents a different perspective, as increasing age seems to promote entrepreneurial intention. Similarly, higher educational level in Qatar does not necessarily promote entrepreneurial intention. Third, women experience a higher entrepreneurial intention than men in Qatar, highlighting a unique entrepreneurial environment in the country. Fourth, expatriate residents in Qatar are more likely to express entrepreneurial intention compared to Qatari citizens.

Most of the variables reported in previous studies that male gender increased perception of self-efficacy, perception on the association of entrepreneurship with "*need for achievement*", greater number of role models; perception of entrepreneurship as associated with "*high status*," "*media attention*," and "*career choice"* increases the likelihood of expressing entrepreneurial intention. The results of this study corroborate with previously reported literature, but novel findings have also been highlighted.

Risk taking propensity is not a predictor of EI in Qatar

Risk-taking propensity is a psycho-behavioural trait which characterizes an individual's tendency to take risks and is linked to entrepreneurial intention (Espíritu-Olmos & Sastre-Castillo, 2015). In contrast, risk-avoidance is commonly associated with self-employment among nascent entrepreneurs (Caliendo et al., 2009). Based on the literature, the significance of risk-taking propensity in promoting entrepreneurial intention seem to be inconsistent depending on the type of respondents and characteristics of their entrepreneurial environment. For example, risk-taking propensity was reported to be a significant predictor of entrepreneurial intention among students (Espíritu-Olmos & Sastre-Castillo, 2015). Risk taking propensity was more commonly observed among entrepreneurs, compared to managers (Stewart & Roth, 2001). Moreover, it was reported by Block et al., (2015) that women entrepreneurs in Germany had lower risk-taking propensity compared to men.

In Qatar, the risk avoidance has also been cited among barriers to starting a business (Kebaili et al., 2015). It was previously reported that employed individuals are more risk-averse,

especially those who were involved in regular employment (Stewart & Roth, 2001). Furthermore, embarking on entrepreneurship among government-employed individuals may cause a disruption of routine activities (Ng & Clercq, 2021), thereby increasing risk avoidance. Risk taking propensity may also be related to the current entrepreneurial environment in Qatar, as entrepreneurship may be hampered due to the dependence on the hydrocarbon industry. In the context of the Theory of Planned Behaviour, there is a lower likelihood of starting business ventures if existing ventures are still able to sustain economic growth. Such is the case for Qatar, where entrepreneurship may not be effectively motivated by financial returns but by passion or other personal interests. However, it is also possible that the hesitancy of Qatari citizens and expatriate residents to start a new venture may be influenced by perceived risks in their current entrepreneurial environment.

Locus of control does not promote EI in Qatar

Locus of control is associated with thinking that success or failure may be influenced by how much effort an individual invests (internal locus of control) or determined by fate or luck "*external locus of control*" (Asante & Affum-Osei, 2019). In the context of the study, locus of control may exert an influence on entrepreneurial intention (Aboal & Veneri, 2016), since the conscious desire to be "*in control*" of business venture may promote greater willingness to start a business. Locus of control may alter based on the changes in the evolving social context related to the entrepreneurial activity (Hansemark, 2003). In this study, "*locus of control*" was not identified as a significant predictor of entrepreneurial intention implying that the current entrepreneurial environment in Qatar may have influenced the perception of locus of control among Qatari citizens and expatriate residents. Furthermore, individualistic cultures which are predominant in the US, UK, Australia, Netherlands and Canada (Abu Farha et al., 2019) were associated with high internal locus of control (Thomas & Mueller, 2000). Respondents in Qatar, in contrast, display more collectivistic rather than individualistic culture (Abu Farha et al., 2019), and have a high internal locus of control might not be necessary for business start-up and sustainability of future entrepreneurial activity.

Perception of Economy does not promote EI in Qatar

In a similar line of argument, perception of economy (perception of business opportunities) is expected to promote entrepreneurial intention in Qatar. Perception is classified to be a cognitive construct (Liñán, Rodríguez-Cohard, et al., 2011) and the capability to recognize business opportunities in the current entrepreneurial environment is perceived to be a strong driving force behind the entrepreneurial intention and actual entrepreneurial activity (Asante & Affum-Osei, 2019). However, this study revealed that the perception of business opportunities does not strongly influence the entrepreneurial intention in Qatar. Moreover, inclusion of the perception of economy does not significantly influence the magnitude of beta coefficients of individual and socio-cultural perceptions. Qatar is preparing to host the FIFA World Cup in 2022 (Henderson, 2014), and opportunities are clearly visible. However, current results imply that the presence of opportunities does not necessarily translate into willingness to become an entrepreneur.

The variables "*locus of control*" and "*perception of entrepreneurial opportunities*" are expected to be influencing each other, and are expected to promote the entrepreneurial intention (Asante & Affum-Osei, 2019). However, both variables do not significantly influence the entrepreneurial intention in Qatar. This result corroborates with a previous finding that Qatari residents are generally risk-averse and state-dependent when it comes to the entrepreneurship (Tok, 2020), with a limited experience in actual entrepreneurial activity. It is also assumed in this study that the entrepreneurial opportunities are present due to the upcoming sporting event, the 2022 FIFA World Cup (Henderson, 2014), yet the level of entrepreneurial intention is low. The lack of desire to embark on business ventures suggests that Qatari citizens are passive towards the entrepreneurial opportunities. It is also possible that desire to start a business venture in Qatar may be hampered by the socio-cultural constraints (Kaplanidou et al., 2016), thereby limiting the propensity of potential entrepreneurs to pursue entrepreneurship. Lastly, entrepreneurship in Qatar is being promoted by the Government to encourage the economic diversification, with a long-term vision for the private sector to become the main driving force for economic growth and sustainability.

Age is not a predictor of EI in Qatar

Age is not a commonly explored variable when developing causal models for entrepreneurial intention. However, there is a general consensus that as an entrepreneur ages, entrepreneurial intention usually decreases (Camelo-Ordaz et al., 2016; Gielnik et al., 2018; Kautonen et al., 2010), which may be due to the perception that there is a lack of sufficient time to ensure entrepreneurial success (Gielnik et al., 2018). In contrast, Kautonen (2014) provided an insight that generally, as a self-employed entrepreneur ages, entrepreneurial activity increases linearly until entrepreneur reaches a threshold age. Beyond this age, entrepreneurial activity decreases. Ostensibly, entrepreneurial intention is suggested to be more predominant among younger potential entrepreneurs since most studies, which focused on determining perceptual factors linked with the entrepreneurial intention, involved potential entrepreneurs who belong to a relatively young age group since the respondents were students (Alabduljader et al., 2020; Brunel et al., 2017; Meoli et al., 2020; Nikou et al., 2019; Nyock Ilouga et al., 2014); although other studies have also involved established entrepreneurs, who belong to older age groups (Camelo-Ordaz et al., 2016; Tok, 2020). It is surmised that as an individual ages, the resistance towards entrepreneurial activities may be associated with concerns related to giving up of a secure source of income, uncertainty related to the success of business venture and loss of professional reputation (Ng & Clercq, 2021).

Education does not influence EI in Qatar

Education has been previously reported to influence the self-efficacy (Wilson et al., 2007), which can influence the entrepreneurial intention at a later stage (Hsu et al., 2019). However, it was also reported that higher self-efficacy is associated with lower entrepreneurial intention (Wilson et al., 2007). In this study, level of education seems to discourage individuals to express their entrepreneurial intentions, which corroborates with the findings of Costa & Pita (2020). It was explained by Wilson (2007) that higher levels of education raise self-efficacy. The results concur with the findings of Sahut et al., (2015), highlighting the role of higher level of education in stimulating readiness towards entrepreneurship.

It should be highlighted in this study that the explanatory variable investigated in the logistic regression model is level of education, not entrepreneurial education. The role of

entrepreneurial education is elusive, as studies may have different sets of variables included in their logistic regression models. It is claimed that the entrepreneurial education, not education level, is more relevant to promoting the entrepreneurial intention (Camelo-Ordaz et al., 2016). However, the entrepreneurial education was found to influence only non-entrepreneurs (Camelo-Ordaz et al., 2016). Nevertheless, increasing educational level is still regarded as an important factor to consider to determine the entrepreneurial intention (Camelo-Ordaz et al., 2016; Sahut et al., 2015) which may help in the development of entrepreneurial knowledge and characteristics.

The population of expatriate residents in Qatar has grown over the years (Shachmurove, 2009), comprising about 89% of all residents (H. Ibrahim et al., 2019) as the economy boomed from 1998 to 2018 (Ben Hassen, 2020). Expatriate residents move to Qatar due to employment opportunities (H. Ibrahim et al., 2019). It is not surprising to note that expatriate residents have higher entrepreneurial intention in Qatar, compared to Qatari citizens. Expatriate residents in Qatar are attracted by the employment opportunities and stay in the country until their contract is served. After securing the employment, the sponsorship law restricts the provision of visa to expatriate residents, making it difficult to change jobs. It is also more difficult for expatriate residents to engage in entrepreneurship activities in Qatar since most of the initiatives and programs prioritize Qatari citizens. The government supports the intention of Qatari citizens to open businesses while policies try to ensure sustained entrepreneurial activity among Qatari citizens. Most expatriate residents are low-income laborers (Gardner et al., 2013). Recently, however, the ability of Qatar to attract and retain foreign workers has been diminishing due to the declining oil prices, weakening labour market, and rising demand to create jobs for Qatari citizens (Ewers & Shockley, 2018). Expatriate residents dominate the employment in public and private sectors due to their contribution to the workforce (De Bel-Air, 2014). However, most of them work in trade and construction, which are classified as the lowest occupational levels in Qatar. With these demographic characteristics, it is surprising that more expatriate residents express entrepreneurial intention since their economic status is relatively higher in Qatar compared to their home countries. In fact, immigrants were reported to have better access to the international networks (Neville et al., 2014), allowing a greater chance of entrepreneurial success compared to Qatari nationals. The same observation can be inferred from the higher propensity of expatriate residents towards engaging in entrepreneurship.

Perceptual factors have varied influences on EI in Qatar

It is notable in this study that most of the perceptual factors, such as individual and socio-cultural perceptions, corroborate well with existing causal and explanatory models which explain the entrepreneurial intention. Based on my presented arguments, the socio-demographic and economic profile of Qatar and other members of GCC is in a striking contrast with the most countries which are highly entrepreneurial (Kebaili et al., 2015). Among the members of the Gulf Cooperation Council, Qatar is relatively heavily reliant on export of hydrocarbon products (Costa & Pita, 2020; Tok, 2020) and import of foreign labour (Ennis, 2015). Entrepreneurship is regarded as an integral component to promote the innovation in Qatar, and initiatives have been laid out to support the small and medium-sized enterprises and to diversify the economy away from the hydrocarbon industry (Tok, 2020). However, Qatari nationals shy away from the entrepreneurship due to knowledge and market barriers, negative perceptions about entrepreneurship and its associated risks, and inability to adapt due to a shift in economic priorities in the country (Kebaili et al., 2015).

Similar to other studies, this study revealed that the entrepreneurial intention in Qatar is predicted by a multitude of factors, when taken simultaneously. To review, this study aimed to investigate the predictive effect of socio-demographic profiles, individual perceptions, perception of economy and socio-cultural perceptions of selected respondents in Qatar. Individual perceptions included the perceptions of "*self-efficacy*", perception on the association of entrepreneurship to "*need for achievement*", "*risk-taking propensity*", "*locus of control*", and "*role model*". Economic perceptions include "*perception of economy*", while socio-cultural perceptions include "*status and respect*", "*career choice*" and "*news in public media*" (media attention). Age, gender, education level and nationality were also included in the iterative modelling to investigate their contribution to determine the likelihood of starting business ventures in Qatar.

Sociodemographic profile has various effects on EI

It became evident that within all models for entrepreneurial intention in Qatar, (**Table** 5.5 and **Table** 5.6) only selected sociodemographic variables are significant in increasing the likelihood for starting a business venture, when all individual perceptions and socio-cultural perceptions

are accounted simultaneously. The identification of socio-demographic variables aids in developing policies to support and sustain entrepreneurial activities. Earlier studies have reported similar findings on the role of socio-demographic profiles of potential and established entrepreneurs to the entrepreneurial intention (Espíritu-Olmos & Sastre-Castillo, 2015; Hatak et al., 2015).

In addition to nationality and education, gender was also identified as a significant predictor of entrepreneurial intention in Qatar, corroborating with the results of earlier studies (Liñán, Rodríguez-Cohard, et al., 2011). Specifically, females exhibited higher entrepreneurial intention compared to males in this study, especially for expatriate residents. Traditionally, male gender is associated with entrepreneurship while females are associated with the roles related to domestic duties (Brush et al., 2019). However, an earlier report highlighted that gender equality is evident in Qatar, (Costa & Pita, 2020) implying that business opportunities are offered and designed to be appealing for both genders. It is also acknowledged that some females in Qatar are educated, which leads to lower propensity towards entrepreneurship since entrepreneurial activity may not be pursued due to job stability (Costa & Pita, 2020).

The results of this study do not conform to the idea that male entrepreneurs are more likely to express entrepreneurial intentions and start their own business, as reported previously in some studies (Camelo-Ordaz et al., 2016; Langowitz & Minniti, 2007). While stereotypical traits of males are viewed as necessary to ensure the entrepreneurial success in other countries, Qatar may present a different context where gender equality is evident (Costa & Pita, 2020; Zeidan & Bahrami, 2011). Moreover, female entrepreneurship increases as the economic development increases (Marín et al., 2019). While it was reported that the higher levels of education among females may act as a disincentive towards entrepreneurship due to perceptions of uncertainty related to business start-ups (Costa & Pita, 2020), the results of this study show a rising trend of females being at the forefront of business start-ups in Qatar for the coming years. The presence of opportunities for entrepreneurship for both male and female population open the possible progressive rise of business ventures which could sustain the Qatari economy in the next decades, without overdependence on the hydrocarbon industry. This may also ensure that the economy of Qatar may be sustained as long as its residents embark on suitable business enterprises.

Individual Perceptions have various influence on EI

Among several individual perceptions investigated in this study, the perception that entrepreneurship is driven by the "*need for achievement*" is a significant explanatory variable. The results corroborate with previous studies (Costa & Pita, 2020; N. F. Krueger, 2017) which reported that high perception of "*self-efficacy*" and having a "*role model*" are significant predictor of entrepreneurial intention. The variable "*need for achievement*" is anchored on the notion that one must perform better or faster compared to others, or exhibit a higher accomplishment compared to a previous achievement (Hansemark, 2003). Nevertheless, presence of a role model and self-efficacy are well-documented factors which promote the entrepreneurial intention (Liñán & Fayolle, 2015; Markman et al., 2002; Segal et al., 2005; Van Auken et al., 2006).

Earlier studies have reported the "*need for achievement*" as a significant determinant of entrepreneurial intention (Espíritu-Olmos & Sastre-Castillo, 2015) but the "*need for achievement*" of the entrepreneur is often cited to be influenced by an extrovert attitude and collectivism (Zeffane, 2013). If the need for achievement is indeed associated with collectivism, this indicates that the entrepreneurs do not focus on competition, but on collaboration. It is interesting to note that the individualistic behaviour weakens the influence of other entrepreneurs in shaping the individuals to pursue entrepreneurship (Greet Hofstede et al., 2005).

Surprisingly, risk-taking propensity were reported in other studies to influence the entrepreneurial intention (Caliendo et al., 2010; Covin & Wales, 2012; Espíritu-Olmos & Sastre-Castillo, 2015),, although the results of this study do not identity it as a significant predictor of entrepreneurial intention. An entrepreneur's "*need for achievement*" was also reported to be correlated with internal locus of control (Hansemark, 2003). This indicates that the variable "*need for achievement*" may still depend on the overall characteristics of entrepreneur, implying interaction effects rather than individual effects.

The presence of "*role models*" was also a significant explanatory variable in predicting entrepreneurial intention when a linear causal explanatory model is utilized. Overall, a role model positively influences the entrepreneur's self-efficacy and attitude towards entrepreneurship (Nowiński & Haddoud, 2019). Role models have been considered to be a significant contributor to exhibit entrepreneurial intention (Liñán & Fayolle, 2015; Urbano et

al., 2011). However, "*role models*" could also include family members, such as mothers and fathers and other business owners (Chlosta et al., 2012; Van Auken et al., 2006). Qatar exhibits the cultural values similar to those in the Mediterranean society who value the role of the family, friends or acquaintances in important decisions, which may include embarking an entrepreneurship venture. According to the Global Entrepreneurship Report – Qatar National Report 2019 (Qatar Development Bank, 2020), social values and culture are more critical drivers of entrepreneurship in Qatar than in other innovation-driven MENA economies. The finding of this study compliments previous reports about the appetite towards entrepreneurship in Qatar (Costa & Pita, 2020).

Having a role model who excels in entrepreneurship or exhibited high success in business ventures, therefore, is expected to promote the entrepreneurial intention among individuals. In fact, entrepreneurial role models help in the development of skills among nascent entrepreneurs to thrive in their specific entrepreneurial milieu (Fritsch & Wyrwich, 2017). It is interesting to note that for female entrepreneurs, qualities related to empowerment, enjoyment from starting a business, engagement in value-driven endeavours, and ability to overcome obstacles reflect the characteristics of a good role model (Byrne et al., 2019). However, having an entrepreneurial role model only exhibits a positive effect to entrepreneurial intention if the individual perceives to be having the same qualities, such as behaviour, characteristics, or goals, as the role model (Byrne et al., 2019). Similarly, an argument needs to be clarified if role models are looked as references for entrepreneurial intention due to perceived level of the individual's entrepreneurship potential, in relation to the main characteristic of the role model (Ryan et al., 2011).

Similar to the perception on the association of "*need for achievement*" to entrepreneurship, the variable "*role model*" (association of entrepreneurship to the number of entrepreneurial role models) is dependent on the overall characteristic of the individual and may therefore modulate the decision to start an entrepreneurial activity. Individual characteristics may modify the predictive effect of individual perceptions depending on the characteristics of the individual who wishes to embark on entrepreneurship, much more so in the context of Qatar. There seems to be a need to further investigate who the ideal role models are for Qatari entrepreneurs to further describe how role models are used to motivate to exhibit the entrepreneurial intention.

Sociocultural Perceptions have various influence on EI in Qatar

Among socio-cultural perspectives, "*status and respect*", "*career choice*", and "*news in public media*" emerged as significant predictors of entrepreneurial intention. These three perceptions imply a positive view of an entrepreneur and are highly subjective and dependent on the context where the individuals are comparing from. It is assumed in this study, however, that the environmental milieu may play a role in perspective of the entrepreneurs (Meoli et al., 2020). As discussed above, Qatar is among the countries with high reliance on revenues from hydrocarbon products (Costa & Pita, 2020; Ennis, 2015; Shachmurove, 2009; Tok, 2020). The current economic standing of Qatar influenced how entrepreneurs are viewed in general. Overall, entrepreneurs are viewed positively, thereby influencing the predisposition of individuals to venture into entrepreneurship. The results may also imply that entrepreneurial intention may be highly influenced by cultural contexts (Alabduljader et al., 2020) and country-specific predispositions (Ennis, 2015), which comfort to the idea of behaviour being shaped by the context where the individual resides.

Overall, entrepreneurial intention is explained by the socio-demographic profile, individual perceptions, perception of the economy, and socio-cultural perceptions. It is acknowledged in this study, however, that utilizing a linear causal-analytical approach may not be adequate to depict the complexity of variable interactions, which promote entrepreneurial intention. However, the model suffices to identify the entrepreneurial characteristics which can serve as a springboard for future policies. While it is generally accepted that the entrepreneurial intention may differ on the diverse combinations of individual's characteristics, it is interesting to point out that the entrepreneurial intention in Qatar is aimed to sustain the economic growth amid the perceived volatility of the current hydrocarbon industry and an increasing positive outlook on lucrative and rewarding entrepreneurship opportunities. However, there is still a need to conduct further studies to understand whether the entrepreneurial intention model developed in this study is applicable to other members of the Gulf Cooperation Council, since other member countries may still exhibit the country-specific entrepreneurial environments (Kebaili et al., 2015; Tok, 2020).

6.2. SECOND STUDY – SOCIAL IDENTITY

Entrepreneurial social identity, or social identity is a normative expression of self-concept and self-perception and is anchored on the Social Identity Theory. The tenet of social identity is

anchored on the notion that a person's identity influences preferences and decisions (Sarasvathy, 2001), which serves as a strong framework to understand how entrepreneurial self-perception influences propensity for business opportunity recognition. As a reflection of an entrepreneur's self-perception, social identity is helmed by the interaction of the entrepreneur's drive for entrepreneurship, actual entrepreneurial activity, and the overall dynamics of the economy, with the moderating effect of various key players in the society (Alsos et al., 2016; Cesinger et al., 2021; Sieger et al., 2016).

However, it was also reported by Hand et al., (2020) that social identities are not core condition for self-efficacy, implying the moderating role of social identity to entrepreneurial behaviour. Regardless of the inconsistent reports about the relevance of social identity in entrepreneurship, it is acknowledged in this study that the social identity may still reflect the entrepreneur's decision-making skills, propensity to recognize and business predisposition, motivation, and perception of entrepreneurship role to society. This study has investigated the social identity of entrepreneurs in Qatar as a strategy to characterize the current entrepreneurial appetite and future entrepreneurial behaviour.

Qatar is classified as a transformative state economy where the hydrocarbon industry is the main contributor to the economy's forward trajectory, but efforts are being made to diversify the sources of revenues (Tok, 2020). The decision to accommodate the entrepreneurship as means for economic diversification is fuelled by the emerging challenges related to the finite natural gas and oil reserves, and the market fluctuation of prices and demand for hydrocarbon products (Costa & Pita, 2020). Since this study emphasizes the unique context of entrepreneurship in Qatar, the determination of social identity among established entrepreneurs in the country serves as a scaffold for future policies and government initiatives to mobilize Qatari entrepreneurs. Entrepreneurial social identity has been a well-explored variable in the field of entrepreneurial studies (Alsos et al., 2016; Brändle et al., 2018; de la Cruz et al., 2018; Sieger et al., 2016) and provided a basis for addressing the entrepreneurial barriers, personalities, motivations and perceptions of individuals who wish to embark on an entrepreneurial activity.

The identification and characterization of the entrepreneurial social identity of entrepreneurs in Qatar entrepreneurs have a significant implication to the development of policies to promote the entrepreneurship and allow the resolution of entrepreneurial barriers in Qatar. Focusing on the entrepreneurial social identity compliments the first study on entrepreneurial intention, as

both variables promote entrepreneurship within the current entrepreneurial context of Qatar. Aside from depicting the business preference and appetite of entrepreneurs, entrepreneurial social identity is considered as an antecedent of entrepreneurial intention (Obschonka et al., 2012), a reflection of entrepreneurial self-efficacy (Brändle et al., 2018; Hand et al., 2020), and a reliable basis for the prediction of actual entrepreneurial performance (de la Cruz et al., 2018). Investigating the social identity of entrepreneurs in Qatar presents, along with the association to various sociodemographic variables of the entrepreneurs, a novel context which policymakers can utilize to promote the business ventures which are relevant, appealing, and sustainable. Furthermore, the association of specific social identities such as "*Darwinian*" and "*Communitarian*" promotes profit generation, growth in sales and attract investors and customers alike (EstradaCruz et al., 2019), which necessitates validation in the Qatari context.

In addition, the rentier economic characteristic of Qatar and other members of the Gulf Cooperation Council (Kaya & Tsai, 2016) ensures a high economic growth for the next few years, thereby shadowing the urgency for economic diversification through entrepreneurship. Recent works have also characterized the unique population characteristic of Qatar. It was emphasized that majority of the residents are migrant workers or expatriate residents (De Bel-Air, 2014; Gardner et al., 2013; H. Ibrahim et al., 2019), and most Qatari residents are collectivists (Hueso et al., 2020), which contrasts individualistic countries that focused on entrepreneurship to sustain economic growth. With such unique social characteristics, sociodemographic profile, and entrepreneurial dynamics, investigating the social identity with the current entrepreneurial characteristics within the *status quo* in Qatar potentiates the generation of relevant policies to further elevate entrepreneurial activity.

To review, this study is anchored on the need for economic diversification to encourage potential entrepreneurs and promote active engagement in entrepreneurial activities. Entrepreneurial social identity provides the information about the behaviour, goal, and motivations of entrepreneurs. In fact, selection of social identity as a variable of interest in this study supports the first study on the entrepreneurial intention, as social identity influences the cognitive processes which are relevant when expressing the entrepreneurial intention (Obschonka et al., 2012). Furthermore, the characterization of the entrepreneurial social identity of nascent and experienced entrepreneurs with their socio-demographic profiles can help justify the type of job opportunities to be offered in Qatar in the future. Necessary modifications in the entrepreneurial ecosystem can also be initiated to promote a more unified national goal for

various entrepreneurs with pure "*Darwinian*", "*Communitarian*" and "*Missionary*" social identities to sustain economic growth in the country.

In several studies, entrepreneurial social identity has been investigated among nascent entrepreneurs (Alsos et al., 2016; Hand et al., 2020), early-stage entrepreneurs (Brändle et al., 2019), and experienced entrepreneurs (Soto-Simeone & Kautonen, 2021). Qatar addresses the necessity for entrepreneurship to a diverse type of entrepreneurs, as the population is mostly comprised of expatriate residents (De Bel-Air, 2014; Ewers & Shockley, 2018; H. Ibrahim et al., 2019). With the current economic characteristics, population demographics and entrepreneurial environment in Qatar, much needs to be done to accrue enough data to support or modify the current economic ecosystem and encourage more entrepreneurial activity.

The results of this study resonate well with the findings of other studies which emphasized the characterization of the social identities of both nascent and established entrepreneurs in various types of economies (Alsos et al., 2016; Fauchart & Gruber, 2011; Sieger et al., 2016). Aside from describing the business preference and appetite of entrepreneurs, the entrepreneurial social identity also determines strategic choice to ensure entrepreneurial success (Brändle et al., 2019) and actual business performance (de la Cruz et al., 2018; Soto-Simeone & Kautonen, 2021). The information revealed from the social identities of entrepreneurs in Qatar provides an opportunity to characterize the current entrepreneurial environment of the country, and how the different types of industries caused the diversification of entrepreneurs.

This study highlights the distribution of Qatari entrepreneurs based on the socio-demographic profile. Furthermore, male entrepreneurs in Qatar are associated with "*Darwinian*" social identity, while Qatari female entrepreneurs are associated with a "*Communitarian*" social identity. The results are similar to the previous reports which found that in general, male entrepreneurs exhibit "*Darwinian*" social identities while females are "*Communitarians*" (Brändle et al., 2019; Sieger et al., 2016). Male gender has also been associated with perception of controllability for "*Darwinian*" and "*Communitarian*" social identities. Female gender, on the other hand, has been conventionally linked with entrepreneurial activities which are less aggressive and more oriented towards the female social roles. In a study of Haan (2002), female entrepreneurs in Dubai (who are similar in culture and entrepreneurial environment with Qatar) were found to be relatively young and well-educated, but are engaged in several home-based micro-enterprises operating under a special license.

Females prefer business with low and moderate performance

It is noted that a female gender and a "*low*" and "*moderate*" business performance are clustered together. It is possible that females are venturing into businesses that have moderate business performance simply because there is no urgency to embark on high-performing business. However, it is also possible that females prefer low and moderate business performance due to socio-cultural limitations as defined by the expected gender roles. In other similar entrepreneurial contexts, female entrepreneurs in Saudi Arabia engage in entrepreneurial activities related to education of children, beauty services and child-related (Abu Farha et al., 2019). This corroborates with the notion that females have a relational orientation (Sieger et al., 2016), and have strong social orientations. Furthermore, it was previously reported that Qatari females are less likely to pursue entrepreneurship (Costa & Pita, 2020) compared to males, in equal social conditions. However, actual entrepreneurial intention was not associated with the actual entrepreneurial activity among British entrepreneurs (Hand et al., 2020), highlighting the difference in the entrepreneurial climate between Qatar, and an individualistic economy such as the UK. The results indicate that the entrepreneurship in Qatar is predominantly challenged by cultural limitations and social expectations which may discourage female entrepreneurship.

Expatriate residents have higher appetite for income generating business

It is interesting to note that most expatriate residents in Qatar exhibit a "*Darwinian*" social identity while most Qatari citizens exhibit a "*Missionary*" predisposition (**Table 5.10**). However, the MCA plot reveals that Qatari citizens may also exhibit "*Communitarian*" social identities. Entrepreneurs who exhibit a "*Darwinian*" social identity prefer established and profitable business firms (Alsos et al., 2016; Sieger et al., 2016; Soto-Simeone & Kautonen, 2021) to maximize profit, and lessen costs by utilizing decision-making skills which are oriented to cost-benefit weighing (Fauchart & Gruber, 2011). Similar to the report of Sieger et al., (2016) "*Darwinians*" are less likely attracted by industries which are not aggressively geared towards high profitability. The predisposition of non-Qatari citizens towards income-generating ventures in Qatar may be explained by the quest for employment opportunities and amenities (H. Ibrahim et al., 2019). The employment stream towards Qatar is driven by the need

for foreign labour and other services and is further encouraged by the job insecurity in the expatriate residents' own countries (Ewers & Shockley, 2018).

It is a common observation that the expatriate residents would be more interested to seek jobs in Qatar focusing on profit generation but are less likely to develop entrepreneurial identity (Utterback et al., 1988). Furthermore, expatriate residents who can successfully accomplish assignments in Qatar, are predisposed to be perceived as individuals with greater competitive advantage among multinational enterprises (Ewers & Shockley, 2018; Hsu et al., 2019), and may be rewarded with entrepreneurial opportunities. Expatriate residents are hired for high-profit jobs in Qatar, and profit is a strong driving force for migration and entrepreneurial activities. In contrast, Qatari citizens who have weak sense of urgency to pursue entrepreneurial activities are expected to experience a shift in economic policies if the current target will be modified to accommodate inclusivity. The afore-mentioned factors may drive expatriate residents to prioritize profit generation as the entrepreneurial ventures in Qatar are viewed as avenues for wealth accumulation, since fewer business opportunities in their respective countries are comparable with the available prospects in Qatar.

Qatari citizens have lower appetite for income-generating business

It is observable that a good number of Qatari citizens also exhibited a "*Hybrid"* social identity. The "*Hybrid*" social identity contains different characteristics of "*Darwinian"*, "*Communitarian*," and "*Missionary*" types (Sieger et al., 2016). Individuals usually exhibit "*Hybrid*" social identities (Fauchart & Gruber, 2011), since self-perception is highly dependent on the interaction of entrepreneurial characteristics, existing business opportunities, and social dynamics that influence the economy. In fact, it is recognized that a "*Hybrid*" social identity is common among entrepreneurs (Alsos et al., 2016; Hand et al., 2020; Soto-Simeone & Kautonen, 2021), implying the propensity of Qatari citizens to utilize multi-perspective logic when recognizing entrepreneurial activity, and sustaining their entrepreneurial activities. Entrepreneurs exhibiting a "*Hybrid*" social identity are commonly oriented towards the generation of a socially-responsible economy (Cesinger et al., 2021), but are also predisposed to entrepreneurial tensions due to the conflicting influence associated with pure social identities. An additional effort to characterize entrepreneurs with "*Hybrid*" social identities in Qatar is

warranted since "*Hybrid*" identities may lead to ambiguous decisions due to their hybridity (Alsos et al., 2016), and the relative influence of each social identity may still exhibit variations.

It is also recognized that there are more Qatari citizens who have "*Undetermined*" social identity. In this study, an "*Undetermined*" social identity is characterized by weak attributes of pure social identities and may suggest the lack of entrepreneurial self-concept. Entrepreneurs in Qatar who are classified as having "*Undetermined*" social identity may also warrant additional investigation since the motivation towards entrepreneurship is not driven by either profit generation or social impacts. Similar to those with "*Hybrid*" social identity, entrepreneurs with "*Undetermined*" social identity may exhibit ambiguous or ambivalent decisions related to the entrepreneurship, reflecting a possibility of indecisiveness to continue or expand the current entrepreneurial activity. The lack of dominant social identity may also become problematic to policy generation due to a muddled context where future entrepreneurial policies can be built upon.

One notable observation is the clustering of "*Missionary*" social identity with the business category "*services*", which comprise food, construction, and other enterprises. The centroid for Qatari citizens is also more proximal to the centroid for the "*Missionary*" social identity in the MCA plot, which indicates the higher likelihood of Qatari citizens to exhibit "*Missionary*" social identity and less likely to be "*Darwinians*." The result can be explained by the entrepreneurs' inspiration from personal interests in local heritage and handicraft traditions. Any effort towards product or business venture development inspired by personal choices links the self-perception to the actual capability of the entrepreneur within the context of effectual behaviour in entrepreneurship (Alsos et al., 2016; Sarasvathy & Dew, 2005).

Furthermore, the "*Missionary*" social identity is clustered with entrepreneur's age of less than 35 years, having a Master's degree and a business age of less than three years. In contrast, senior entrepreneurs (>50 years old) are not clustered to any pure social identities. Taken altogether, entrepreneurs who are relatively young and well-educated consider the impact of their business venture on the society. The results contrast with the report of Soto-Simeone and Kautonen (2021), as older entrepreneurs in UK are more driven by non-monetary motivations and general sense of purpose and self-actualization, implying that they are less likely to be "*Darwinians*".

It is noted that business ventures related to agriculture are not clustered with any social identity in the current context of the study. Agriculture is a business venture which focuses on

environmental management and productive use of land (Fitz-Koch et al., 2018), which suggests that entrepreneurs who are engaged in agriculture-related business ventures should have the desire to acknowledge the impact of the agricultural industry to people and the ecosystem. The absence of clustering of this business sector with other categories of variables implies that the agricultural industry in Qatar may not be an attractive type of business and may warrant more elucidation.

Overall, the results of the second study have presented relevant information about entrepreneur and business characteristics which are linked to pure "*Darwinian*", pure "*Communitarian*" and pure "*Missionary*" identities. The difference between a collectivistic and transformative economy is such as Qatar contrasts the economies in Europe. This implies that the result of the study is more appropriate and contextualized point of reference from which other members of the Gulf Cooperation Council can investigate further. Furthermore, there is a need to investigate the motivators and perceptions of entrepreneurs with "*Hybrid*" and "*Undetermined*" social identity to support their existing entrepreneurial activity and encourage nascent entrepreneurs to engage in entrepreneurship through the support of government policies and possible collaboration with established entrepreneurs in Qatar. The establishment of entrepreneurship as an alternative modality to promote the economic diversification while being a rentier economy may indeed be fruitful in sustaining economic growth in Qatar in the subsequent few years.

The results imply expatriate residents are more aggressive in pursuing income generating business in Qatar, and while Qatari nationals have lower appetite towards high-profit entrepreneurship. With the current sociodemographic profile and sociocultural characteristics in Qatar, it is necessary to develop initiatives which increases entrepreneurial activities in Qatar while highlighting inclusivity and diversity to ensure a long-term interest and commitment to entrepreneurship.

7. CHAPTER SEVEN: CONCLUSION

This chapter presents the conclusion of the thesis based on the analysis of factors linked to the entrepreneurial intention of nascent and established entrepreneurs, and the social identity of entrepreneurs in the current entrepreneurial context in Qatar.

In this thesis, it is concluded that the entrepreneurial intention is linked with demographic variables, individual perceptions and socio-cultural perceptions while social identities are linked with demographic and business characteristics. Specifically, the significant explanatory variables which promote entrepreneurial intention were gender, nationality, perception of "*self-efficacy*", association of entrepreneurship to "*need for achievement*", perception of "*role model*," association of entrepreneurship to "*high status*", "*media attention*" and "*career choice*".

Based on a social identity theory, a "*Darwinian*" social identity is associated with expatriate residents, male gender, and "*high*" business performance. A "*Missionary*" social identity is associated with business ventures related to "*services*", having a Master's degree, entrepreneurs' age of less than 35 years, and a business age of less than three years. A "*Communitarian*" social identity is associated with female gender, Qatari citizens, "*low*" and "*moderate*" business performance. The results suggests that socio-cultural factors can play significant roles in promoting entrepreneurial intention in Qatar and may be pivotal in development of initiatives to support entrepreneurship in Qatar considering its unique entrepreneurial milieu. It is asserted in this study that the variables linked to the entrepreneurial intention and social identity of the Qatari population present a unique context which can serve as a template for promoting entrepreneurship among transformative and collectivistic countries which are characterized by a rentier economy, such as other members of the GCC.

7.1. PRACTICAL IMPLICATIONS

The results of the thesis have practical implications for the development of policies to promote entrepreneurship in Qatar. In contrast to other countries, Qatar is primarily a rentier economy with a collectivistic approach towards entrepreneurship, and the population demographics are significantly influenced by a foreign labour. Hence, existing entrepreneurial models using individualistic economies may not be relevant to promoting entrepreneurship in Qatar. The results of the entrepreneurial intention model can provide empirical evidence to generate

business opportunities and government support initiatives to encourage Qataris to view entrepreneurship as means to diversify the economy, thereby promoting entrepreneurial intention, and subsequent entrepreneurial activity. The characterization of entrepreneurial social identities and association of variables with pure "*Darwinian*", "*Communitarian*", "*Missionary*", "*Hybrid*" and "*Undetermined*" social identities provide a qualitative depiction of current entrepreneurial environment in Qatar, which can be used to strategize the incentive policies to be offered in order to promote more Qatari residents to engage in entrepreneurship. With generation of relevant policies, the government of Qatar can provide suitable opportunities to encourage potential entrepreneurs to venture into business start-ups, and established entrepreneurs to expand their existing business ventures, thereby achieving the objectives of economic diversification and sustained economic growth.

Several initiatives may also stem from this thesis. The results regarding a higher entrepreneurial intention among females may support a female-oriented or "*Fempreneur*" policy. The higher propensity of expatriate residents towards entrepreneurship may also lead to entrepreneurship visa programs to foster entrepreneurship culture. Policies which reduce the cost of business start-ups may also increase entrepreneurial intention and sustain entrepreneurial activity. Innovative business ideas can also be presented via Qatar shark tanks can highlight business opportunities that can cater to the appetite of both expatriate residents and Qatari citizens towards specific types of business ventures.

7.2. LIMITATIONS

There are several limitations of the current academic undertaking. It is recognized that the unique demographic and sociocultural characteristics of Qatar may not be similar to other countries where previous entrepreneurial intention models were developed. Hence, the findings and significance of the results of the study are only limited to countries with similar entrepreneurial environments. The variables associated with pure, and hybrid social identities are also acknowledged to be valid in Qatar, but may not be similar in other countries which do not share the same sociocultural and demographic contexts.

Furthermore, the number of items related to some entrepreneurial perceptions include one item rather than a scale. The constructs and questions of the questionnaire and the intention model are derived from western countries, and Qatari may not fully share the same structure of reference as their Europeans and Americans counterparts regarding some of the believes

It is also acknowledged that a linear causal explanatory modelling such as binary logistic regression models cannot sufficiently capture the dynamic interaction of the individual's personality, individual perceptions and sociocultural perceptions in Qatar. The unique entrepreneurial environment and economic characteristics of Qatar may have indirectly influenced the statistical significance of the identified explanatory variables which promote entrepreneurial intention among expatriate residents and Qatari nationals. In the characterization of social identities of entrepreneurs in Qatar, the identification of Hybrid social identities (*Darwinian-Communitarian*, *Darwinian-Missionary*, *Communitarian-Missionary* identities) provide a novel finding which can spur future research efforts in Qatar and other similar economies.

It is acknowledged that the approach utilized in this study is limited by the choice of variables included in the analysis. Other significant variables such as perception of self-efficacy or entrepreneurial intention may provide a richer context to the extent of social identity as a predictor or entrepreneurship.

7.3. FUTURE RESEARCH

Sociocultural factors are linked to the promotion of entrepreneurial intention in Qatar, and qualitative studies can further enrich how sociocultural perceptions influence entrepreneurial intention, and what type of government support must be present in order to promote entrepreneurial intention within the specific sociocultural context of Qatar. The presence of "*Undetermined*" social identities among Qatari entrepreneurs is also a unique finding which can serve as an interesting point of reference for future studies. Lastly, the linking of "*Communitarian*" or "*Missionary*" social identity with Qatari nationals and "*Darwinian"* social identity to expatriate residents (expat) may provide an additional insight on which business opportunities to promote in order to encourage entrepreneurship.

A longitudinal study to analyse the main determinant of the entrepreneurial intention and the evolution of these determinants over time may be considered worthy of exploring. The findings of the first study point the importance of socio-culture factor in determining entrepreneurial intention. A qualitative study to determine other factor or sociocultural factors that might contribute to enhance the current developed model. Giving that the context of Qatar is different than other country. It is also suggested to carry out a study of the intention by economic sector

this will help the government promoting the sectors that entrepreneurs would like to be engaged with and specifically the innovation-driven sector. Lastly, the analysis can also include the family background which might affect entrepreneurial intention.

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9. APPENDICES

Appendix A. Multicollinearity tests

Table 9.1. Collinearity Statistics of explanatory variables

Variables	Collinearity Statistics	
	Tolerance	VIF
Sociodemographic Variables		
Gender	0.927	1.079
Age	0.975	1.026
Education	0.953	1.049
Nationality	0.944	1.060
Individual Perceptions		
Self-efficacy	0.846	1.182
Role model	0.900	1.112
Need for achievement	0.861	1.162
Risk taking propensity	0.925	1.081
Locus of control	0.893	1.119
Perception of economy		
Perceived opportunity	0.917	1.090
Socio-cultural Perceptions		
High status	0.872	1.147
Media attention	0.886	1.128
Career choice	0.868	1.152

Appendix B. Logit models of Entrepreneurial Intention in Qatar

Table 9.2. Model 1: Logit model of IE with the sociodemographic profile

	β	S.E.	Wald	p-value	Exp(B)
Gender (female)	0.280	0.092	9.182	0.002	1.323
Age (25-34)	0.401	0.122	10.758	0.001	1.493
Age (35-44)	0.220	0.132	2.796	0.094	1.246
Age (45-54)	0.225	0.159	2.006	0.157	1.252
Age (55-64)	0.252	0.252	1.004	0.316	1.287
Education (bachelor's degree)	-0.060	0.098	0.373	0.541	0.942
Education (master & above)	-0.243	0.156	2.422	0.120	0.784
Nationality (Expat)	0.625	0.089	49.259	0.000	1.868
Constant	-0.602	0.131	21.156	0.000	0.548
Chi-Squared			72.44*		
Log likelihood			-1,703.42		
Nagelkerke R^2			0.04		
Cox & Snell R^2			0.03		
% Correctly Predicted			64.6		
AIC			3,424.85		
BIC			3,477.32		

Table 9.3. Model 2: Logit model of IE with the sociodemographic profile and individual perceptions

	β	S.E.	Wald	p-value	Exp(B)
Gender (female)	0.407	0.099	16.761	0.000	1.502
Age (25-34)	0.342	0.128	7.127	0.008	1.408
Age (35-44)	0.124	0.138	0.798	0.372	1.132
Age (45-54)	0.071	0.167	0.181	0.670	1.074
Age (55-64)	0.180	0.270	0.445	0.505	1.198
Education (bachelor's degree)	-0.182	0.104	3.055	0.080	0.834
Education (master & above)	-0.421	0.167	6.375	0.012	0.657
Nationality (Expat)	0.658	0.095	47.948	0.000	1.932
Self-Efficacy	0.212	0.032	44.627	0.000	1.236
Need for Achievement	0.562	0.054	107.724	0.000	1.754
Risk Taking Propensity	0.000	0.055	0.000	1.000	1.000
Locus of Control	0.057	0.055	1.070	0.301	1.058
Role Model	0.218	0.038	33.255	0.000	1.244
Constant	-1.562	0.182	73.616	0.000	0.210
Chi-Squared			318.63*		
Log likelihood			3,160.65		
Nagelkerke R^2			0.16		
Cox & Snell R^2			0.12		
% Correctly Predicted			64.6		
AIC			3,188.65		
BIC			3,270.27		

Table 9.4. Model 3: Logit model of IE socio-demographic profile, individual and economic perceptions

	β	S.E.	Wald	p-value	Exp(B)
Gender (female)	0.408	0.099	16.831	0.000	1.503
Age (25-34)	0.341	0.128	7.052	0.008	1.406
Age (35-44)	0.121	0.138	0.768	0.381	1.129
Age (45-54)	0.068	0.167	0.166	0.684	1.070
Age (55-64)	0.183	0.270	0.460	0.497	1.201
Education (bachelor's degree)	-0.178	0.104	2.910	0.088	0.837
Education (master & above)	-0.414	0.167	6.153	0.013	0.661
Nationality (Expat)	0.661	0.095	48.219	0.000	1.937
Self-Efficacy	0.207	0.032	40.548	0.000	1.230
Need for Achievement	0.563	0.054	108.115	0.000	1.757
Risk Taking Propensity	0.000	0.055	0.000	0.997	1.000
Locus of Control	0.057	0.055	1.091	0.296	1.059
Role Model	0.217	0.038	32.964	0.000	1.243
Perceived Opportunity	0.025	0.031	0.643	0.423	1.025
Constant	-1.637	0.205	63.889	0.000	0.195
Chi-Squared			319.27*		
Log likelihood			3,160.01		
Nagelkerke R^2			0.16		
Cox & Snell R^2			0.12		
% Correctly Predicted			64.6		
AIC			3,190.01		
BIC			3,277.46		

Table 9.5. Model 4: Logit model of IE socio-demographic profile, individual, economic, and socio-cultural perceptions

	β	S.E.	Wald	p-value	Exp(B)
Gender (female)	0.308	0.101	9.217	0.002	1.360
Age (25-34)	0.360	0.130	7.619	0.006	1.433
Age (35-44)	0.124	0.141	0.783	0.376	1.133
Age (45-54)	0.085	0.170	0.248	0.619	1.088
Age (55-64)	0.144	0.275	0.273	0.601	1.155
Education (bachelor's degree)	-0.168	0.106	2.516	0.113	0.845
Education (master & above)	-0.387	0.170	5.193	0.023	0.679
Nationality (Expat)	0.642	0.097	43.928	0.000	1.900
Self-Efficacy	0.183	0.033	30.433	0.000	1.201
Need for Achievement	0.523	0.055	90.933	0.000	1.686
Risk Taking Propensity	0.011	0.056	0.038	0.845	1.011
Locus of Control	0.060	0.056	1.178	0.278	1.062
Role Model	0.222	0.038	33.400	0.000	1.249
Perceived Opportunity	-0.006	0.032	0.035	0.852	0.994
High Status	0.136	0.039	12.099	0.001	1.145
Media Attention	0.168	0.037	20.949	0.000	1.183
Career Choice	0.154	0.037	17.641	0.000	1.166
Constant	-3.249	0.285	130.222	0.000	0.039
Chi-Squared			399.21*		
Log likelihood			3,080.06		
Nagelkerke R^2			0.19		
Cox & Snell R^2			0.14		
% Correctly Predicted			67.6		
AIC			3,116.07		
BIC			3,221.01		

Appendix C. MCA results – Complete

Table 9.6. Categories results on dim 1, and 2 – Complete

Category	Dimension 1				Dimension 2			
	Coor.	**CTR**	**Cos²**	**v.test**	**Coor.**	**CTR**	**Cos²**	**v.test**
Darwinian	-0.998	16.005	0.550	-17.298	0.209	0.945	0.024	3.629
Communitarian	1.774	10.698	0.256	11.802	1.360	8.439	0.150	9.048
Missionary	0.467	2.875	0.090	6.991	-0.715	9.048	0.211	-10.705
Hybrid	-0.017	0.001	0.000	-0.122	0.167	0.148	0.003	1.207
Undetermined	0.460	1.804	0.049	5.175	0.091	0.094	0.002	1.022
Female	1.415	7.465	0.180	9.898	0.562	1.583	0.028	3.934
Male	-0.127	0.672	0.180	-9.898	-0.051	0.142	0.028	-3.934
E<35 year	0.260	0.581	0.016	2.941	-1.246	17.967	0.366	-14.114
E36-49 year	-0.063	0.109	0.006	-1.814	0.124	0.557	0.023	3.535
E>50 year	-0.055	0.028	0.001	-0.657	0.782	7.752	0.162	9.378
High School	0.189	0.349	0.010	2.315	0.433	2.459	0.052	5.306
Bachelors	0.000	0.000	0.000	0.006	0.042	0.069	0.003	1.321
Masters	-0.302	0.559	0.014	-2.791	-0.889	6.513	0.124	-8.223
Expat	-0.906	14.207	0.510	-16.657	-0.176	0.721	0.019	-3.240
Qatari	0.563	8.837	0.510	16.657	0.110	0.449	0.019	3.240

Coor. = Coordinate; CTR = Relative Contribution; Cos² = Square Cosine

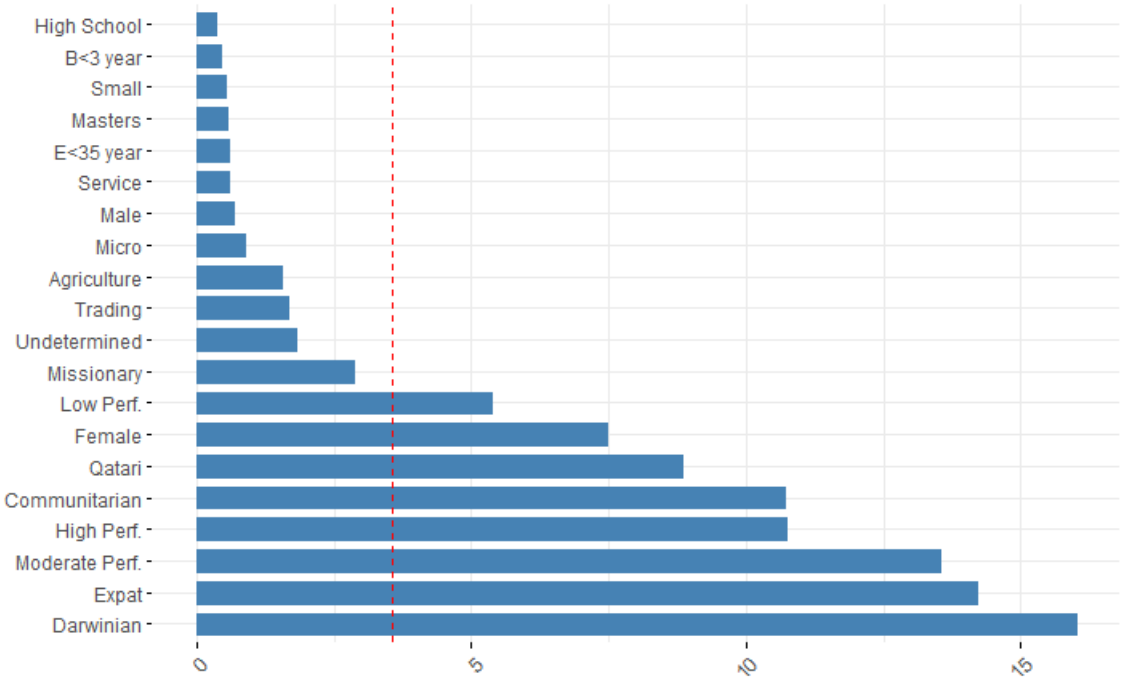

Figure 9.1. Significance of top categories in dimension 1

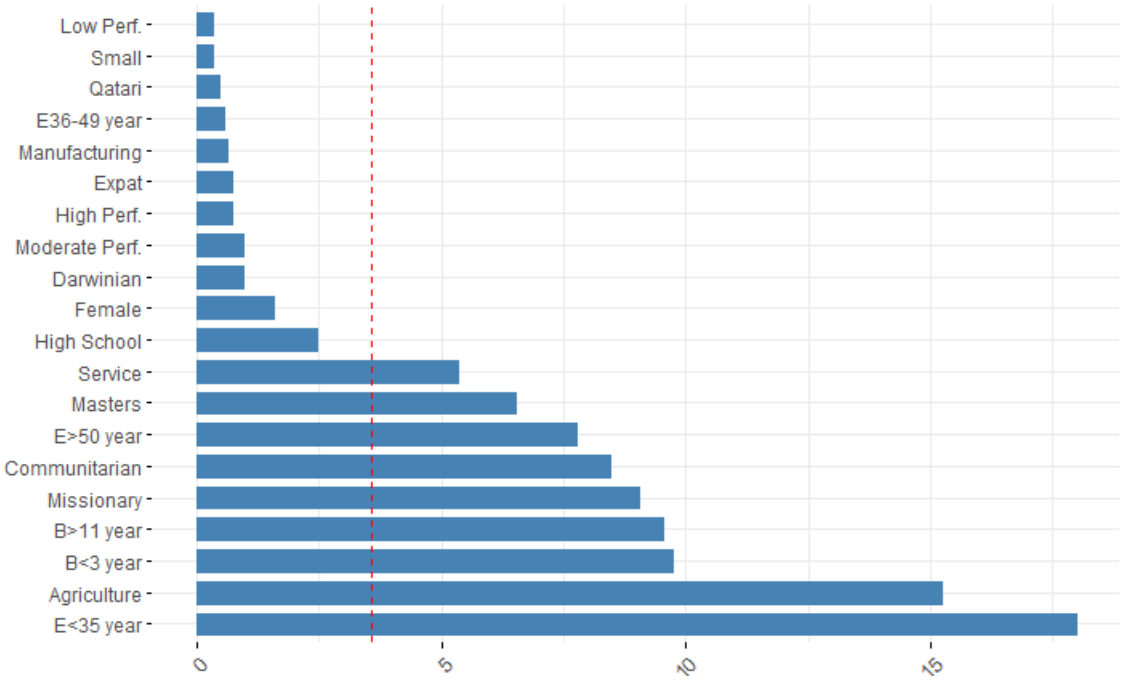

Figure 9.2. Significance of top categories in dimension 2

Appendix D. MCA results – Males

Table 9.7. Categories results on dim. 1 and 2 – Males

Category	Dimension 1				Dimension 2			
	Coor.	**CTR**	**Cos²**	**v.test**	**Coor.**	**CTR**	**Cos²**	**v.test**
Darwinian	-1.029	19.213	0.627	-17.685	0.110	0.261	0.007	1.883
Communitarian	1.262	3.266	0.070	5.904	2.240	12.334	0.220	10.479
Missionary	0.731	8.140	0.242	10.998	-0.563	5.780	0.144	-8.466
Hybrid	0.053	0.012	0.000	0.371	0.179	0.164	0.003	1.240
Undetermined	0.521	2.461	0.062	5.559	0.135	0.197	0.004	1.437
E<35 year	0.416	1.658	0.042	4.592	-1.157	15.350	0.326	-12.761
E36-49 year	-0.140	0.562	0.028	-3.733	0.066	0.150	0.006	1.760
E>50 year	0.003	0.000	0.000	0.035	0.870	9.571	0.209	10.205
High school	0.245	0.663	0.018	2.958	0.561	4.167	0.092	6.776
Bachelors	-0.012	0.004	0.000	-0.343	-0.007	0.002	0.000	-0.212
Masters	-0.358	0.840	0.020	-3.149	-0.913	6.531	0.129	-8.021
Expat	-0.916	16.309	0.555	-16.642	-0.312	2.260	0.064	-5.659
Qatari	0.606	10.782	0.555	16.642	0.206	1.494	0.064	5.659
Micro	0.151	0.412	0.013	2.585	-0.104	0.233	0.006	-1.775
Small	-0.153	0.555	0.022	-3.328	0.047	0.063	0.002	1.028

Coor. = Coordinate; CTR = Relative Contribution; Cos² = Square Cosine

Table 9.8. Significance of variables on each dimension – Males

Dimension 1			Dimension 2		
Variables	R^2	P-value	Variables	R^2	P-value
Social Identity	0.678	< 0.001	Entrepreneur's age	0.429	< 0.001
Business's Performance	0.638	< 0.001	Business's Sector	0.372	< 0.001
Entrepreneur's nationality	0.555	< 0.001	Social Identity	0.320	< 0.001
Business's Sector	0.070	< 0.001	Business's Age	0.305	< 0.001
Entrepreneur's age	0.046	< 0.001	Entrepreneur's education	0.183	< 0.001
Entrepreneur's education	0.031	< 0.001	Entrepreneur's nationality	0.064	< 0.001
Business's Size	0.022	0.004	Business's Performance	0.030	0.001

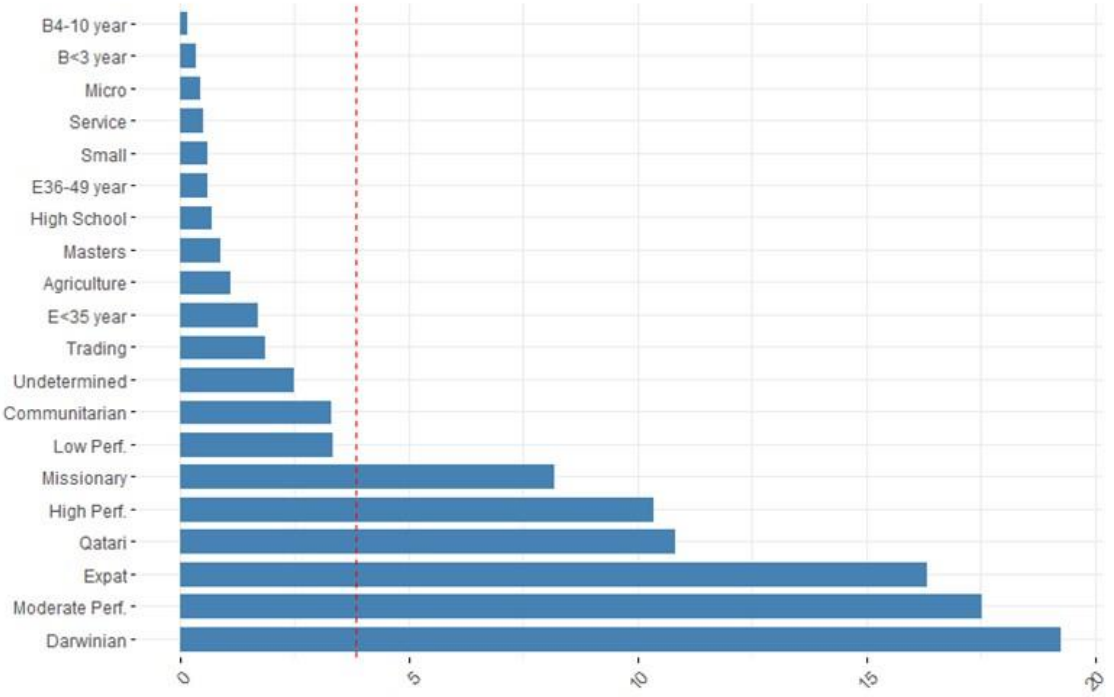

Figure 9.3. Significance of top categories in dimension 1 – Males

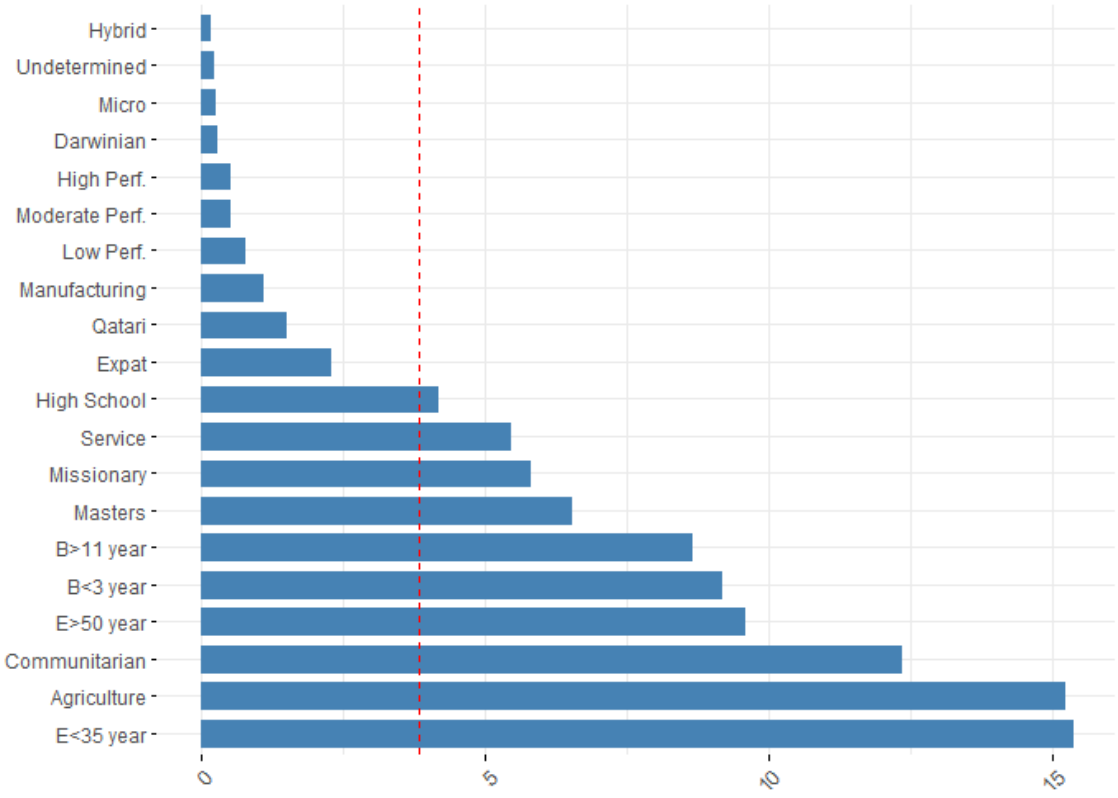

Figure 9.4. Significance of top categories in dimension 2 – Males

Appendix E. MCA results – Females

Table 9.9. Categories results on dim. 1 and 2 – Females

Category	Dimension 1				Dimension 2			
	Coor.	CTR	Cos^2	v.test	Coor.	CTR	Cos^2	v.test
Darwinian	-1.029	19.213	0.627	-17.685	0.481	1.825	0.050	1.484
Communitarian	1.262	3.266	0.070	5.904	0.164	0.529	0.021	0.972
Missionary	0.731	8.140	0.242	10.998	-1.069	3.377	0.082	-1.895
Hybrid	0.053	0.012	0.000	0.371	0.240	0.227	0.006	0.497
Undetermined	0.521	2.461	0.062	5.559	-0.488	2.345	0.068	-1.730
E<35 year	0.416	1.658	0.042	4.592	1.104	7.207	0.188	2.874
E36-49 year	-0.140	0.562	0.028	-3.733	-0.299	2.906	0.246	-3.289
E>50 year	0.003	0.000	0.000	0.035	0.540	1.724	0.045	1.406
High school	0.245	0.663	0.018	2.958	1.270	7.945	0.202	2.979
Bachelors	-0.012	0.004	0.000	-0.343	-0.279	2.537	0.215	-3.073
Masters	-0.358	0.840	0.020	-3.149	0.410	1.158	0.031	1.167
Expat	-0.916	16.309	0.555	-16.642	0.134	0.177	0.005	0.475
Qatari	0.606	10.782	0.555	16.642	-0.038	0.050	0.005	-0.475
Micro	0.151	0.412	0.013	2.585	0.620	8.720	0.403	4.208
Small	-0.153	0.555	0.022	-3.328	-0.699	8.179	0.297	-3.613

Coor. = Coordinate; CTR = Relative Contribution; Cos^2 = Square Cosine

Table 9.10. Significance of variables on each dimension – Females

Dimension 1			Dimension 2		
Variables	R^2	P-value	Variables	R^2	P-value
Business's Performance	0.802	< 0.001	Business's Sector	0.499	< 0.001
Social Identity	0.824	< 0.001	Business's Size	0.407	< 0.001
Entrepreneur’s nationality	0.681	< 0.001	Business's Age	0.363	< 0.001
Business's Sector	0.241	0.009	Entrepreneur’s age	0.267	0.001
Entrepreneur’s education	0.164	0.023	Business's Performance	0.266	0.002
Business's Size	0.155	0.029	Entrepreneur’s education	0.263	0.002

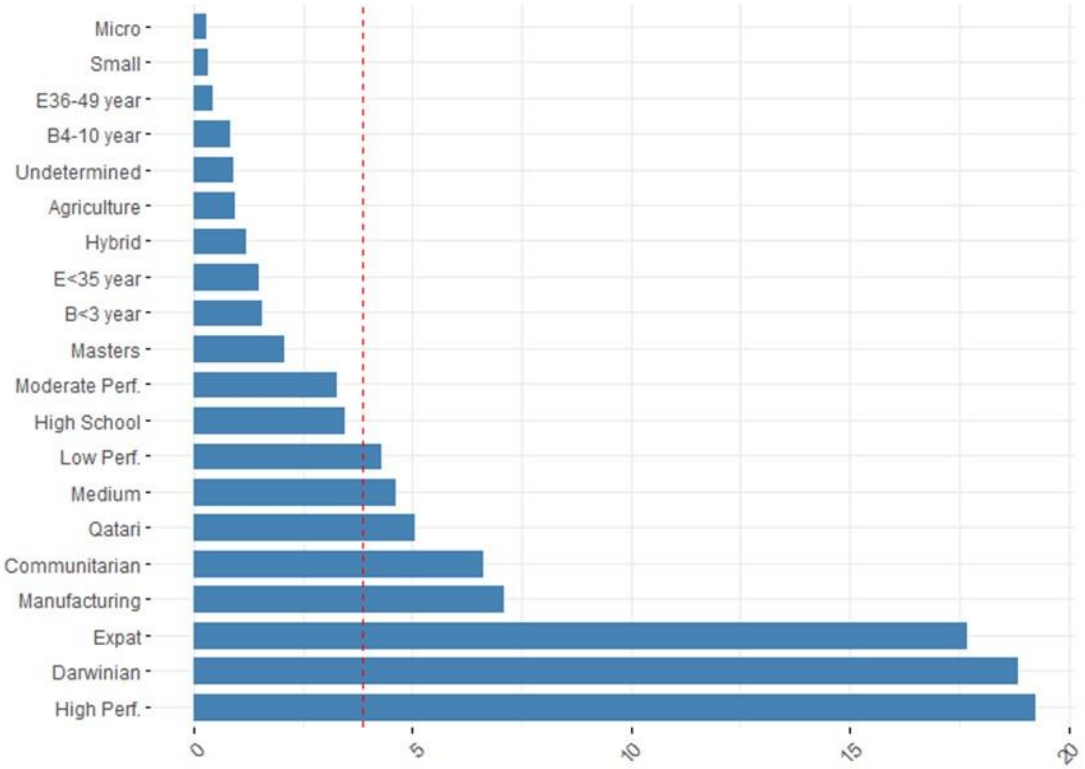

Figure 9.5. Significance of top categories in dimension 1 – Females

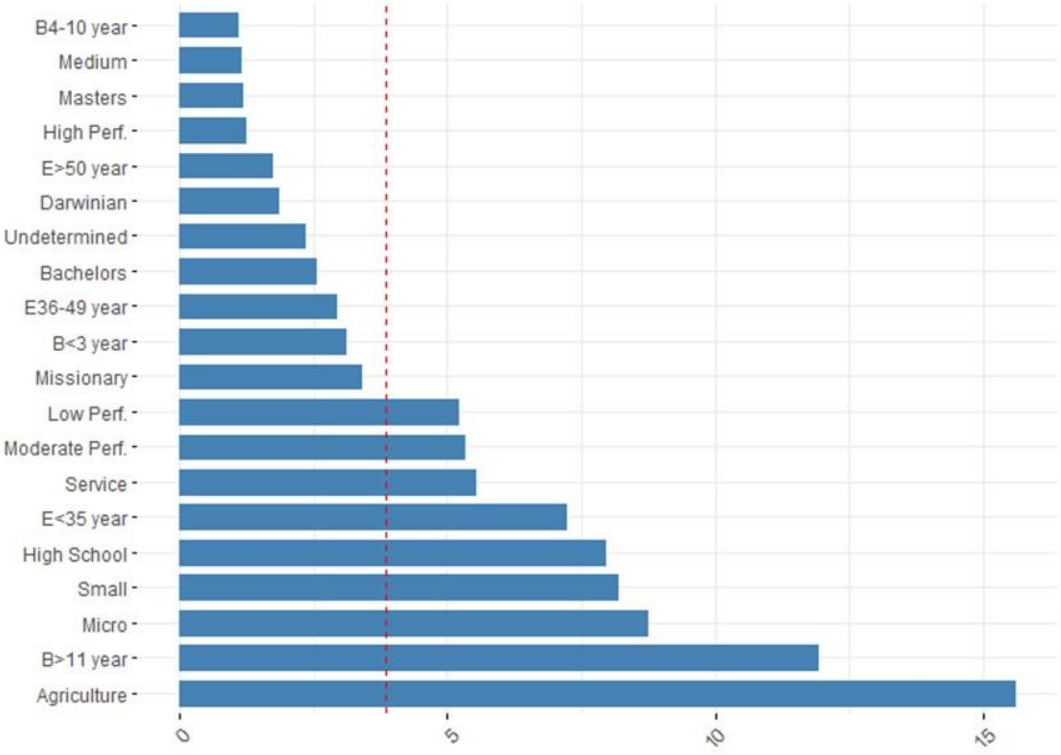

Figure 9.6. Significance of top categories in dimension 2 – Females

Appendix F. MCA results – Qatari citizens

Table 9.11. Categories results on dim. 1 and 2 – Qatari citizens

Category	Dimension 1				Dimension 2			
	Coor.	CTR	Cos^2	v.test	Coor.	CTR	Cos^2	v.test
Darwinian	-1.385	15.804	0.384	-11.339	0.184	0.336	0.007	1.509
Communitarian	0.747	3.279	0.075	5.023	1.822	23.426	0.449	12.261
Missionary	0.358	2.434	0.080	5.176	-0.766	13.362	0.366	-11.073
Hybrid	-0.262	0.342	0.008	-1.607	-0.066	0.026	0.000	-0.404
Undetermined	0.135	0.207	0.005	1.348	0.232	0.733	0.016	2.318
Female	1.416	10.326	0.233	8.840	1.668	17.181	0.324	10.412
Male	-0.165	1.201	0.233	-8.840	-0.194	1.998	0.324	-10.412
E<35 year	1.093	10.372	0.255	9.236	-0.907	8.558	0.175	-7.661
E36-49 year	-0.047	0.065	0.003	-1.028	0.151	0.791	0.032	3.276
E>50 year	-0.682	5.533	0.148	-7.030	0.295	1.240	0.028	3.039
High School	-0.368	1.614	0.043	-3.797	0.370	1.958	0.044	3.819
Bachelors	0.014	0.006	0.000	0.352	-0.058	0.131	0.006	-1.468
Masters	0.787	3.095	0.070	4.832	-0.506	1.535	0.029	-3.107
Micro	0.215	0.932	0.032	3.267	0.254	1.556	0.044	3.854
Small	-0.169	0.638	0.024	-2.809	0.022	0.012	0.000	0.359

Coor. = Coordinate; CTR = Relative Contribution; Cos^2 = Square Cosine

Table 9.12. Significance of variables on each dimension - Qatari citizens

Dimension 1			Dimension 2		
Variables	R^2	P-value	Variables	R^2	P-value
Business's Performance	0.529	< 0.001	Social Identity	0.639	< 0.001
Social Identity	0.447	< 0.001	Entrepreneur’s gender	0.324	< 0.001
Entrepreneur’s age	0.323	< 0.001	Business's Sector	0.307	< 0.001
Entrepreneur’s gender	0.233	< 0.001	Entrepreneur’s age	0.179	< 0.001
Business's Age	0.225	< 0.001	Business's Size	0.118	< 0.001
Business's Sector	0.139	< 0.001	Entrepreneur’s education	0.061	< 0.001
Entrepreneur’s education	0.095	< 0.001	Business's Age	0.034	< 0.001
Business's Size	0.033	0.004	Business's Performance	0.025	0.015

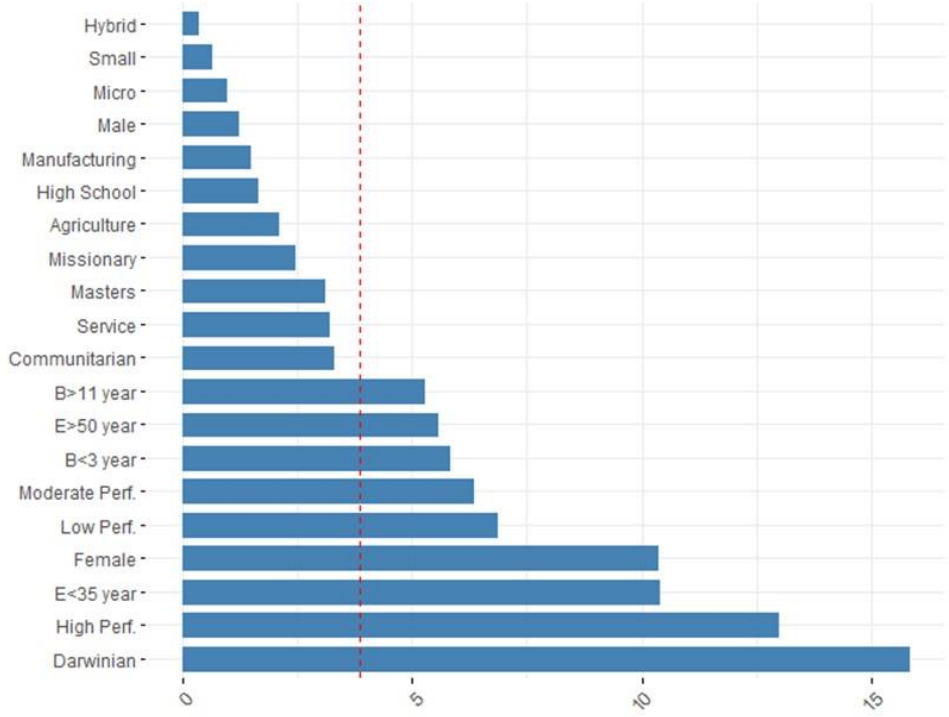

Figure 9.7. Significance of top categories in dimension 1 – Qatari citizens

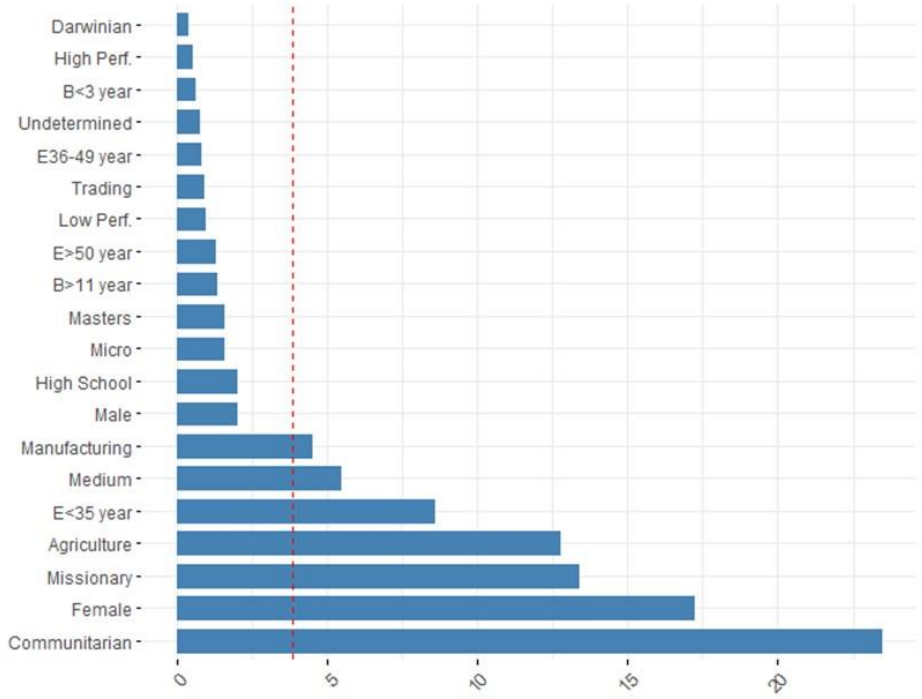

Figure 9.8. Significance of top categories in dimension 2 – Qatari citizens

Appendix G. MCA results – Expatriate residents

Table 9.13. Categories results on dim. 1, and 2 – Expatriate residents

Category	Dimension 1				Dimension 2			
	Coor.	CTR	Cos^2	v.test	Coor.	CTR	Cos^2	v.test
Darwinian	0.251	2.150	0.122	5.043	-0.335	4.071	0.218	-6.739
Communitarian	6.999	12.132	0.236	6.999	9.737	24.901	0.456	9.737
Missionary	-1.073	8.553	0.193	-6.335	0.873	6.009	0.128	5.156
Hybrid	-0.071	0.017	0.000	-0.273	-0.240	0.212	0.004	-0.927
Undetermined	-0.324	0.677	0.015	-1.763	0.526	1.889	0.039	2.859
Female	1.803	8.051	0.163	5.829	1.135	3.383	0.065	3.669
Male	-0.091	0.405	0.163	-5.829	-0.057	0.170	0.065	-3.669
E<35 year	-0.922	9.483	0.233	-6.969	0.286	0.970	0.023	2.164
E36-49 year	0.174	0.986	0.051	3.258	0.038	0.050	0.002	0.713
E>50 year	0.566	2.617	0.060	3.534	-0.542	2.546	0.055	-3.385
High School	0.064	0.038	0.001	0.428	0.628	3.834	0.085	4.202
Bachelors	0.113	0.416	0.022	2.131	-0.174	1.053	0.052	-3.292
Masters	-0.432	1.845	0.044	-3.028	-0.006	0.000	0.000	-0.041
Micro	-0.176	0.545	0.016	-1.821	0.206	0.793	0.022	2.133
Small	0.075	0.151	0.006	1.128	-0.082	0.195	0.007	-1.241

Coor. = Coordinate; CTR = Relative Contribution; Cos^2 = Square Cosine

Table 9.14. Significance of variables on each dimension – Expatriate residents

Dimension 1			Dimension 2		
Variables	R^2	P-value	Variables	R^2	P-value
Social Identity	0.455	< 0.001	Social Identity	0.676	< 0.001
Business's Performance	0.419	< 0.001	Business's Performance	0.599	< 0.001
Business's Sector	0.319	< 0.001	Business's Sector	0.265	< 0.001
Business's Age	0.262	< 0.001	Entrepreneur’s education	0.089	< 0.001
Entrepreneur’s age	0.253	< 0.001	Entrepreneur’s gender	0.065	< 0.001
Entrepreneur’s gender	0.163	< 0.001	Entrepreneur’s age	0.065	0.001
Entrepreneur’s education	0.044	0.009	Business's Age	0.040	0.015

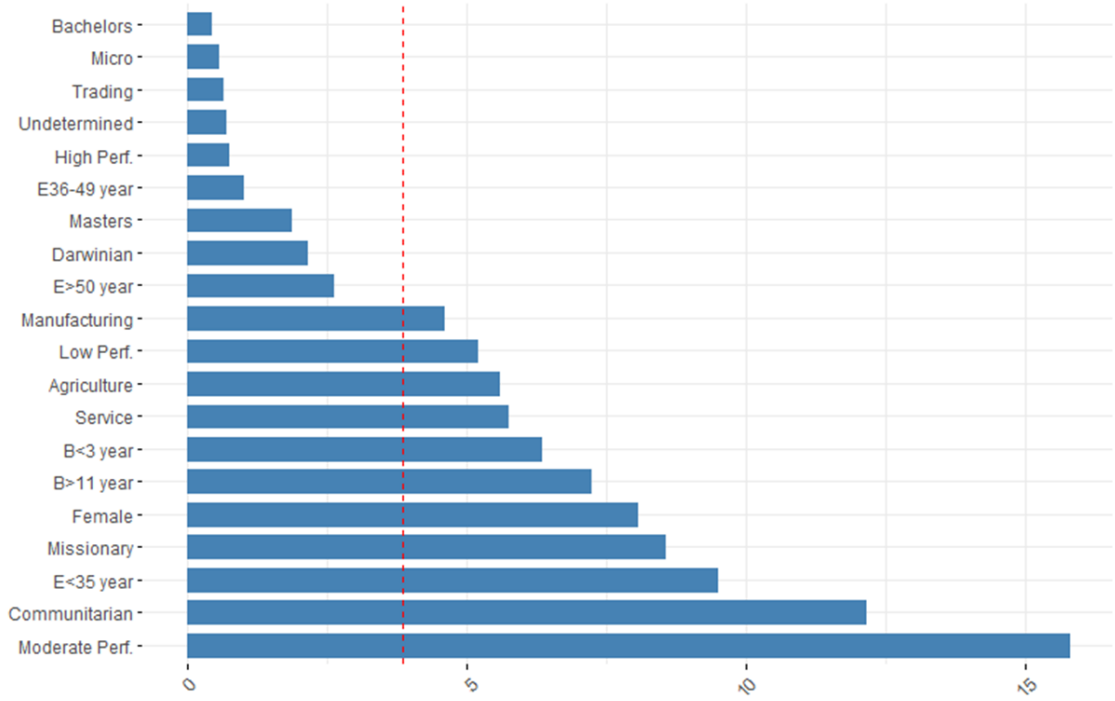

Figure 9.9. Significance of top categories in dimension 1 – Expatriate residents

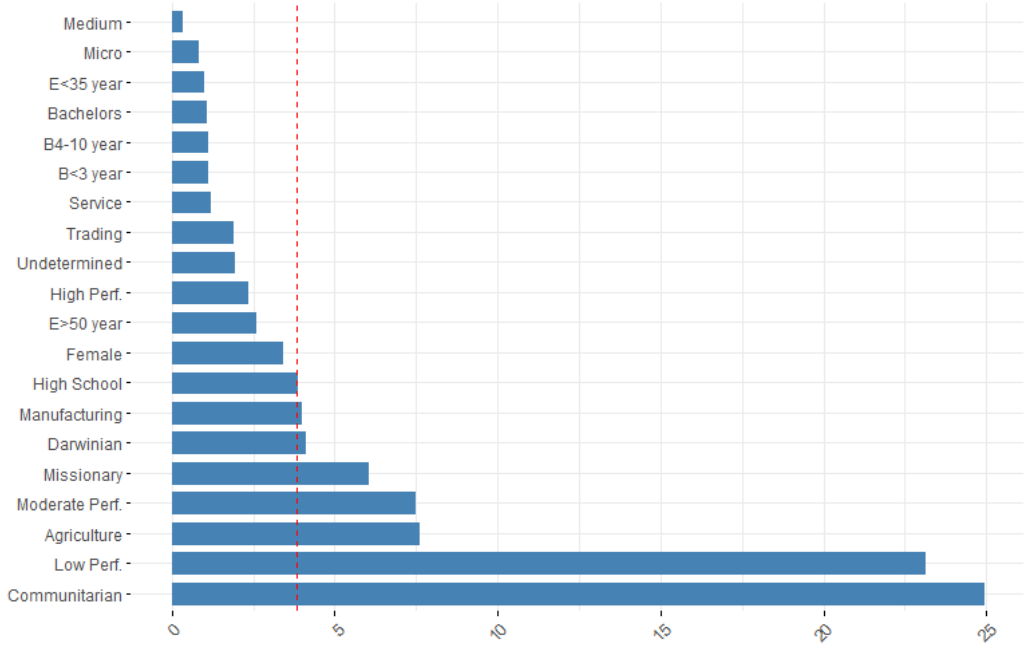

Figure 9.10. Significance of top categories in dimension 2 – Expatriate residents