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ABSTRACT

The number of female entrepreneurs and their contribution to the economy is steadily rising. Yet research suggests that female entrepreneurs face more challenges and barriers than their male counterparts. This is expected to be even more prevalent in Islamic contexts, which are characterised by conservative and patriarchal societies. In this research, 254 female business students from a private and a public university responded to a questionnaire that gauges their perceptions about potential barriers to entrepreneurship in Jordan and whether the business education they are receiving helps to prepare them for future entrepreneurial activity. Our results help to form a basis on which a deeper understanding of the phenomena can be achieved through more in depth future research. Among the main environmental factors that worry potential female entrepreneurs are the weakness of Jordanian economy, lack of finance, fear of risk, gender inequality and inability to maintain a work and private life balance. Our results also show that students are really not aware of the opportunities available to them and are unable to make a proper assessment. We call on both universities and the Jordanian government to put more emphasis on practical entrepreneurial education and encouraging women to play a much more active role within the workforce.

Keywords: *Entrepreneurship, Female, Entrepreneurial Education, Jordan, Middle East*

Encouraging Female Entrepreneurship in Jordan: Environmental Factors, Obstacles and Challenges

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1. Introduction

Entrepreneurship is an elusive term that is often associated with the recognition of opportunity, an element of risk and the development of new ventures. It is a driving force behind economic development, and innovation, job creation and social empowerment (Bruton, Ketchen, & Ireland, 2013; Dana, 2000). Engagement in entrepreneurial activity can also contribute to a person's personal development and self-fulfilment. The past decade has seen policy makers in both developed and developing countries focus on entrepreneurial activity as a means of promoting economic growth and alleviating the welfare of its citizens (European Commission, 2010, 2013). There are a number of factors that play a major role in the decision to start a new business. A significant amount of research in this field has focused on the nascent entrepreneur's personal traits, abilities and perceptions as determinants of entrepreneurial intention and behaviour (Carr & Sequeira 2007; Kristiansen & Indarti 2004; Liñán et al. 2011; Sesen 2013). While, another body of research focuses on micro and macro environmental factors (Franco et al. 2010; Franke & Luthje 2003).

The number of female entrepreneurs and their contribution to the economy is steadily rising (GEM, 2012) and many studies have focused on the characteristics and challenges of females, allowing for the development of a whole field of study (e.g. C. C. Baughn, Chua, & Neupert, 2006; Brush, Bruin, & Welter, 2009; Ettl & Welter, 2010). Yet research suggests that female entrepreneurs face more challenges and barriers than their male counterparts (Al Gharaibeh, 2011; Caputo, Mehtap, Pellegrini, & Al-Refai, 2015; S Carter, Anderson, & Shaw, 2001; Dabic, Daim, Bayraktaroglu, Novak, & Basic, 2012; Jamali, 2009; Ramadani, Hisrich, & Gërguri-Rashiti, 2015; Ramadani, 2015). This is expected to be even more prevalent in conservative and patriarchal societies like those in the Middle East, where Islam plays a dominant role in the

governance of society (e.g. Ahmad, 2011; Dana, 2009, 2010; Ramadani, Dana, Ratten, & Tahiri, 2015; Sidani, 2005; Syed, 2008). In particular, a strong call has been made to investigate major influences played by antecedents of entrepreneurial intention (Krueger, 2007). Indeed, in such contexts women are faced with bigger challenges and barriers that can affect their intention to start and run a business (Al-Dajani & Marlow, 2010; GEM, 2009, 2012; H. Hattab, 2012; Ramadani, Dana, Gërguri-Rashiti, & Abazi-Alili, 2015; Verme, 2014). Although those topics has been somehow studied, the novelty of our study is to systemically integrate our results with the existing theories of entrepreneurial intention (Icek Ajzen, 1991; Lüthje & Franke, 2004; Shapero & Sokol, 1982). We therefore propose a link between the challenges and barriers faced by women in Islamic contexts with the antecedents of entrepreneurial intention, allowing for a deeper understanding of the subject.

We chose Jordan as context of analysis for this study for a number of reasons. First, Jordan has a well educated, dynamic and young population who is facing increasing levels of unemployment and overcrowding in the public sector. Second, following the boom in the ICT sector, the development of entrepreneurial activity is at the top of the national agenda and highly supported by the ruling Hashemite Royal Family (Caputo, Mehtap, et al., 2015; Caputo, Lombardi, et al., 2015). Third, there is a rising level of interest in alleviating the status of women in the country and encouraging them to play an active role in economic development. Additionally, the paucity of research pertaining to female entrepreneurship in the Middle East (Caputo, Mehtap, et al., 2015; Chamlou, Klapper, & Muzi, 2008; De Vita, Mari, & Poggesi, 2014) and Jordan in particular, has prompted the researchers to carry out this study with the aim of advancing scholarship in this particular area.

Therefore, our study aims to gauge the perceptions of female business students with respect to environmental barriers to entrepreneurship in Jordan. We undertake this objective by looking at how female business students perceive the university education they are receiving in terms of preparing them for future entrepreneurial endeavours. We also compare female students studying in a private and a public university in order to see if there are any differences in their perceptions of the entrepreneurial environment in Jordan and their perceptions of the relevance of the business education that they are receiving.

The chapter is structured as follow. We first present a literature review that starts with studies on entrepreneurial intentions in the context of female entrepreneurship, followed by the impact of

entrepreneurial education and training, and finally narrow down our argument to the Islamic context, particularly that of the Middle East. Methodological notes follow and results are presented and discussed.

2. Entrepreneurial intention and female entrepreneurship

Recent research (Nabi, Holden, & Walmsley, 2010; Sesen, 2013) have stated that the majority of research on entrepreneurial intentions are mostly modelled on Ajzen's (1991) Theory of Planned Behaviour, Shapero's Model of Entrepreneurial Event (1982) or Luthje and Franke's model (2004). In addition to personal traits, factors in the micro and macro environment that can encourage or hinder entrepreneurship have also been investigated (Franco et al., 2010; Franke & Luthje, 2003). Some of these environmental factors are: market structure and dynamics (Boccardelli & Magnusson, 2006; Van Stel, Storey, & Thurik, 2007); access to financing (Sara Carter, Shaw, Lam, & Wilson, 2007; Itani, Sidani, & Baalbaki, 2011a; Kim, Aldrich, & Keister, 2006; Sandhu, Sidique, & Riaz, 2011; Welsh, Memili, Kaciak, & Al Sadoon, 2014); government policy (Ahmad & Xavier, 2011; N. Carter, Brush, Greene, Gatewood, & Hart, 2003; Goby & Erogul, 2011; Minniti, 2008); political and economic stability (Lerner, 2010; Movahedi & Yaghoubi-Farani, 2012; Taylor & Plummer, 2003); culture and society's views on entrepreneurship (C. C. Baughn et al., 2006; C. Baughn & Neupert, 2003; Gupta, Turban, Wasti, & Sikdar, 2009; Light & Dana, 2013; Ramadani, Gërguri, Dana, & Tašaminova, 2013; Shinnar, Giacomini, & Janssen, 2012); business information (Ettl & Welter, 2010; Sandhu et al., 2011); support mechanisms and networking opportunities (Ahmad & Xavier, 2011; Al-Alak & Al-Haddad, 2010; Caputo, Mehtap, et al., 2015; De Vita et al., 2014; Goby & Erogul, 2011); access to formal education and training (Dabic et al., 2012; Dickson, Solomon, & Weaver, 2008; Lüthje & Franke, 2002; Packham, Jones, Miller, Pickernell, & Thomas, 2010; Pruett, 2012).

For the entrepreneur, environmental factors form the basis of a cost-benefit analysis and play an important role in the formation of entrepreneurial intentions, as they have the potential to either facilitate or impede entrepreneurial activities (Kibler, 2012; Liñán & Chen, 2009; Lüthje & Franke, 2004). Sesen (2013) states that environmental factors are often perceived as "gap fillers" in the relationship between personality traits and entrepreneurial intention. Sandhu and colleagues (2011) found that financing, access to markets, government support and availability

of information are critical resources that can impact the success of start-ups. Personal factors, such as aversion to risk, fear of failure and aversion to stress and hard work are also common barriers faced by aspiring entrepreneurs (Taormina & Lao, 2007; Wang & Wong, 2004). In fact a “fear of failure” has been cited as the top reason given worldwide for not starting a business (Sandhu et al., 2011).

Yet an important aspect to be considered in the discussion is related to gender. Indeed both young and adult females tend to show a minor propensity toward entrepreneurial activities (Díaz-García & Jiménez-Moreno, 2010; Mueller & Dato-on, 2010; F. Wilson, Kickul, & Marlino, 2007). As a result, most of the countries surveyed by the Global Entrepreneurship Monitor have male entrepreneurs outnumbering their female counterparts (GEM, 2014). This situation may be explained in terms of influences on entrepreneurial intentions. According to the theory of planned behaviours of Ajzen’s (1991), three factors, namely social norms, attitudes and perceived control, influence entrepreneurial intention. Social norms refer to the perceived acceptance or aversion toward a specific behaviour in the close environment of a person. Attitudes on the other hand refer to personal judgments and evaluations in relation to a certain action. This element is often considered in terms of desirability or the appeal of outcomes (Shapiro & Sokol, 1982). The final element is related to the self-confidence of the subject in performing a task or a behaviour. This element is closely related to, if not completely overlapped with, the concept of self-efficacy developed by Bandura (1997).

Each of these three elements can reduce the entrepreneurial intention in female potential entrepreneurs. In relation to the social norms construct, Baughn, Chua and Neupert (2006) drew attention to the importance of the country-specific, socio-cultural context for entrepreneurship. They explain how stereotypes, gender role ideologies and social acceptability of entrepreneurship as a career choice are highly influential. In addition, a large number of women in the Arab world still need to receive approval from a proxy male member of the family (Al-Dajani & Marlow, 2010). In such “surroundings” it is not surprising that females may consider the pursuit of an entrepreneurial career to be less socially acceptable.

Attitudes towards entrepreneurship may also prove to be an impairing factor for females. Entrepreneurship unfortunately is perceived as an achievement oriented and masculine endeavour (Díaz-García & Jiménez-Moreno, 2010; Sweida & Reichard, 2013). Thus, the common stereotypical view of women clashes against this construct. For this reason even at an

unconscious level, the evaluation of the desirability of such activity may be reduced in favour to more gender stereotype-aligned activities. The culture of a country strongly sharpens the situation; In the Arab world, gender stereotypes are socially reinforced and for this reason women are expected to show priority and commitment to the household and their children (Abdalla, 1996; El-Rahmony, 2002).

Finally, females show less self-efficacy than male-counterparts(Díaz-García & Jiménez-Moreno, 2010; F. Wilson et (Ramadani, Dana, Gërguri-Rashiti, et al., 2015; Ramadani, Hisrich, et al., 2015)al., 2007). Again, this fact can be related to gender stereotypes. If an activity is generally considered to be male-oriented, women will perceive a lack of such traits and skills necessary to perform it, thus further reinforcing the original gender stereotype(Sweida & Reichard, 2013). For this reason, some scholars have highlighted the effects of gender biases even in education (Mueller & Dato-on, 2010).

3. The role of entrepreneurial education and training

With such a focus on entrepreneurial activity, education and training in this field has been discussed by many authors(Dabic et al., 2012; Dickson et al., 2008; Fayolle, Gailly, & Lassas-Clerc, 2006; Mehtap, 2014b). Entrepreneurial education is not just about teaching someone to run a business, rather it is an holistic approach that helps to empower and develop individuals to be creative and to recognize and exploit market opportunities, thus creating economic value and helping to contribute to social development (Sánchez, 2011). For this reason, it has been part of the curricula of US higher education systems for the past 50 years, often adapting to meet the emerging needs of real world businesses(K. Wilson, 2008). The literature on the importance of formal education as a prerequisite to entrepreneurial initiatives is divided into two fields. On one side, it is claimed that education can improve a person's creativity and provide them with the necessary skills and mindset that is able to see and grasp opportunities(Dickson et al., 2008; Gurel, Altinay, & Daniele, 2010; Lüthje & Franke, 2004). On the other, it is argued that formal education kills the entrepreneurial spirit by placing too much emphasis on conformism-which in turn restricts creativity and innovation and makes individuals more risk aversive and less tolerant to ambiguity(Gibb, 2002). There have also been arguments that entrepreneurship education focuses too much on the entrepreneurial processes such as opportunity recognition and marketing

strategies but does not focus enough on developing skills and attributes needed for success(Gurel et al., 2010).

Formal education was found to be one of the most influential factors in choosing entrepreneurship as a career option(Henderson & Robertson, 2000). Recent research has also found that young university graduates between the ages of 25–34 years show the highest inclination towards starting up their own business(Liñán et al., 2011). So while the debate continues, the significant impact that universities have on the entrepreneurial intentions of young minds is undeniable (Cheng, Chan, & Mahmood, 2009; Dabic et al., 2012; Packham et al., 2010; Schwarz, Wdowiak, Almer-Jarz, & Breitenecker, 2009). Today there is a strong call for reform and embedding entrepreneurship education into education systems worldwide(Gibb, 2002). This is seen as a means of encouraging innovation, risk taking, creativity and critical thinking skills that will lead to job creation and sustainable economic growth(Borožan & Dabić, 2008; European Commission, 2010). Therefore, a strong focus within entrepreneurship education should be on the process of new venture creation and creating graduates with a global mind set who are job creators rather than job seekers(Mehtap, 2014a).

There are diverse differences in education systems in the Arab World. Most of the education offered is based on rote learning, in often overcrowded classrooms, where critical thinking and the ability to think out of the box are not encouraged. Competition to secure a seat in a university is very fierce and often getting into university is a matter of life and death. Unfortunately, a large majority of education systems in the Arab World are not in tune with market needs and this creates a surplus of unemployable graduates with bleak hopes for the future(The World Bank, 2006). Fewer than 10 percent of universities in the MENA region offer entrepreneurial courses. Just 17 universities in the region have centres for entrepreneurship and only five offer a major in entrepreneurship(WEF, 2011). In the aftermath of the Arab Spring and in a region where youth make up the majority of the population, job creation through entrepreneurship is an important factor for alleviating the economic welfare of Arab citizens and particularly the status of its women(Caputo, Mehtap, et al., 2015; Caputo, Lombardi, et al., 2015; Mehtap, 2014a).

4. The Jordanian Context

The Hashemite Kingdom of Jordan is a developing country situated in the middle of a region torn by strife and turmoil and with an estimated population of around 8 million people. More

than half of the population is under the age of 24. The unemployment rate amongst youth (those between 15-24 years of age) stands at nearly 30 percent (Central Intelligence Agency, 2014). Poor in natural resources, Jordan relies heavily on foreign aid, remittances from Jordanians living abroad and the income from the services sector which accounts for more than 70 percent of GDP(The World Bank, 2015).

Jordan is a collectivist, paternalistic, patriarchal and tribal society, where religion plays an important role in the governance of society. Like most of the Middle East, the majority of Jordanians are Muslim. While the way Islam is practiced may vary from country to country in the region, the Islamic religion has an important influence over societal norms, political systems and is considered to be a way of life. The Jordanian legal system is also based on Sharia (religious) law. Women constitute a significant proportion of the population of Jordan, yet their potential to make a significant contribution to the overall economic development of their country remains largely untapped due to a variety of economic, social and cultural constraints. Arab societies still have the traditional viewpoint that women must be committed to their houses and children(Abdalla, 1996; El-Jardawi, 1986; El-Rahmony, 2002) and that men are the principle breadwinners and solely responsible for providing for their wives and families. Jordanian society is no exception. Therefore, this mind set explains why Arab women constitute only 25 percent of workers in the Arab world(Barcucci & Mryyan, 2014; ILO, 2014). In some circles, Islam is also blamed for limiting the basic rights of women and for encouraging gender discrimination(Al-Sadi et al. 2013; Ahmad & Xavier 2011; Itani, Sidani, et al. 2011). However, in reality and when interpreted in the correct context, Islam provides women with many economic and legal freedoms and the power to own a business and manage her own finances independent of her husband. Islam also dictates that a woman is not required to make a contribution to the family income from her personal assets and business dealings. An excellent example of the economic freedom bestowed on Muslim women is Khadija, the wife of the prophet Mohammed (PBUH). Khadija was a prominent and wealthy businesswoman of her time, who employed the prophet on a commission basis. Therefore, it is not Islam that is a constraining factor for women's participation in economic activity. It is social customs and tribal traditions that create barriers for females. Despite the high literacy rates amongst Jordanian females(Barcucci & Mryyan, 2014; Majcher-Teleon & Slimène, 2009), society still encourages them to find a husband and start a family rather than focus on a career(Hakki & Somach, 2012).

With a growing young and dynamic population, one of the Kingdom's principle goals is to increase access to higher education and establish a knowledge-based society. Jordan's steady investment in education over the years has resulted in a dramatic increase in literacy rates to a level of 95.9 percent. The country is the highest spender on education in the region, investing more than 20 percent of its GDP. Currently there are 10 public, 17 private and 51 Community Colleges offering higher education in the Kingdom. Around 230,000 students are currently enrolled in public and private universities(TEMPUS, 2012).Jordan's human capital combined with entrepreneurial activity is believed to be a pathway to growth and prosperity not only at home but in the wider region. Entrepreneurship in Jordan is fuelled by the boom in the ICT sector and with the right combination of encouragement and protectionist measures it can spread through other sectors, bringing prosperity to all sections of the population. In Jordan, fostering entrepreneurship has priority in the national agenda(Caputo, Mehtap, et al., 2015) and education in this respect is believed to significantly impact the creation of new business ventures(Galloway & Brown, 2002; Lüthje & Franke, 2002).

In the past decade, the number of Jordanian female entrepreneurs is steadily increasing and Hattab (2010) found that many Jordanian women are turning to entrepreneurship as a means of income generation and self actualization. Yet despite the increasing numbers, Al- Dajani and Marlow(2010) found that women entrepreneurs in Jordan are still expected to pursue their business endeavours without compromising their main responsibilities as wives and mothers. Caputo and colleagues (2015)recently emphasized the importance of supporting opportunities in order to nurture female entrepreneurship and examined 28 institutions that provide support for female entrepreneurs in Jordan. They expressed the need for a sound entrepreneurial ecosystem that is female friendly and called on the government to encourage entrepreneurship education and better information dissemination on this subject. Mehtap(2014a) highlighted the importance of entrepreneurial education for the economic development of Jordan and provided a case example of how partnerships with European universities under the EU-TEMPUS framework was successful in developing both undergraduate and graduate courses in entrepreneurship in the Kingdom. On a similar note, Caputo and colleagues (2015)looked at the inclination of Jordanian business students to work for start ups after graduation and found that entrepreneurial education and participation in entrepreneurial events, increase the willingness of graduates to work for start ups.

5. Methodology

5.1 Sample selection & Data Collection

An examination of previous studies has shown that students have often been used in entrepreneurship research (Fayolle et al., 2006; Liñán & Chen, 2009). University students were chosen as the focus of this study because like Dabic and colleagues (2012) the researchers believe that “younger people are more willing to be self employed”. Data was collected from female business students from a private and a public university in Amman, Jordan. The private university is over 20 years old and its medium of instruction is in English. It has a reputation for providing niche degree programs that are highly sought by the industry and its graduates are known to be amongst the best in the Kingdom. This university is also known for its focus on entrepreneurship and strong ties with the marketplace. The public university is one of the largest in Jordan. Its business faculty is among the top business schools in the country. It is known for its progressive leadership, successful graduates and focus on highly trained human capital. Both universities have developed and embedded a compulsory course in entrepreneurship within their business curriculums, which allows for a comparison. At both universities questionnaires were distributed as part of an in-class activity (130 questionnaires from the private university and 124 from the public university).

5.2 Questionnaire Design

As previously stated our aim is to inquire the possible antecedents for female entrepreneurial intention, especially in terms of potential barriers and challenges. The questionnaire used in this study is based on Shapero & Sokol's (1982) model that tries to explain the desirability of entrepreneurial events from an individual, societal and financial perspective and the work of Lüthje & Franke (2004) who looked at environmental factors and their effect on the entrepreneurial intentions of business students. We adapted the questions, to reflect the culture and business environment of Jordan and used a 7-point Likert scale. In order to ensure content validity, we first, revised the questionnaire and submitted it for peer review to a panel of experts in the field, by employing the Delphi method (Okoli & Pawlowski, 2004). Second, we conducted a pilot study with a limited number of participants with similar characteristics to our sample. No problems with the questionnaire were detected, and all initial Cronbach's alphas of the several

categories of barriers and challenges scored more than the acceptability threshold of .70. The average of the set of alphas was around .80.

The questionnaire is composed of three sections, that covers the demographic characteristics of the sample, the environment and potential barriers to entrepreneurship, and, finally, the business education offered by the university. Reliability analysis for both scales yielded a coefficient (Cronbach's Alpha) of 0.83 and 0.65 respectively.

6. Findings and Discussion

A total of 254 female business students responded to the questionnaire. Over 80% of the respondents were between the ages of 17-21 and had attended private schooling with 83% graduating from the Tawjihi stream (National high school system) and a further 8% graduating from a school that follows the British IGCSE system. Students in their third year of study comprised 38% of the sample. Nearly 60% of the respondents came from a family of entrepreneurs. When asked to indicate whom, all of their responses indicated a male member of the family. Only 27% of the respondents were working and studying at the same time. The respondents first heard about entrepreneurship at university (43%). A further 21% indicated that they had heard about the concept in high school. Students who had previously taken a course/workshop or training session in entrepreneurship made up 28% of the sample.

Nearly two thirds of the respondents indicated that they were not aware of any local/national agencies set up to encourage entrepreneurship in the Kingdom. The remaining third who were aware, indicated that they knew about either Queen Rania Center for Entrepreneurship (Non profit), or INJAZ Al Arabi (Non profit, youth empowerment program) or Oasis 500 (Seed investment program). A quarter of the students wish to work for the private sector after graduation, and only 27% indicated that they would like to set up their own business. Nearly 50% of these students indicated that the size of the business in terms of employees would be between 10-50. Only 10% of the students would like to run a large enterprise with over 250 employees. The most preferred sectors for starting a new business were services (47%), followed by the Information Technology sector (16%).

6.1 Analysis of potential barriers to starting a business in Jordan

Students were asked to assess 25 factors that could be a potential barrier to setting up a business in Jordan. Some of these factors were related to perceptions about their own entrepreneurial capacity and abilities, others were related to government policy, social factors and financial issues. Students' perceive the weak Jordanian economy ($\mu= 5.09$), lack of finance($\mu= 5.05$) fear of risk ($\mu=4.87$) and gender issues (male dominance $\mu=4.82$;difficulty balancing work and home life $\mu=4.72$) as the five major impediments to entrepreneurship and there was a significant difference between both groups in all five factors (see Table 1).The literature has identified financial constraints as a problem for both male and female entrepreneurs(Sara Carter et al., 2007; Kim et al., 2006).However, when both genders are compared, it seems that women are faced with more difficulty when it comes to obtaining finance(Ahmad, 2011; Itani, Sidani, & Baalbaki, 2011b; Welsh et al., 2014). Furthermore, multiple refugee crises coupled with political and economic instability both at home and abroad are making cautious Jordanians hold on tightly to their hard-owned cash. However, many Jordanians are not aware that despite troubles in the region and bad economic times, there are multiple initiatives, aid programs and funding opportunities available for nascent entrepreneurs. This all points to an urgent need to disseminate information publicly and to raise awareness about this issue(Caputo, Mehtap, et al., 2015).

Table 1. Students' perceptions of potential barriers to female entrepreneurship

Top five barriers perceived by female students	Mean	T	Sig
1.The economy in Jordan is bad	5.09	3.396	0.001
2.Lack of money/capital	5.05	3.281	0.001
3.Scared of financial risk involved	4.87	4.685	0.000
4.Jordanian business life is dominated by men	4.82	5.648	0.000
5.It's hard to balance long work hours with private life	4.72	6.423	0.000

(Confidence level .05)

Researchers have argued that a country's culture, values,beliefs and norms affect entrepreneurial orientation(Hechavarria & Reynolds, 2009; Jaén & Liñán, 2013). People living in collectivist cultures like the one in Jordan, tend to be more influenced by the opinions of others(I Ajzen, 2001; Hofstede, 1980; Liñán & Chen, 2009). Students were asked whether they perceived that their family and close social relations would discourage them from engaging in entrepreneurial

activity. Students' responses show that they do not believe that their family ($\mu= 2.28$) nor their friends ($\mu=2.36$) would discourage them from becoming an entrepreneur.

Arab societies still have the traditional viewpoint that women must be committed to their houses and children (Abdalla, 1996; El-Jardawi, 1986; El-Rahmony, 2002) and thus Arab women constitute only 25% of workers in the Arab world. Although many females receive a university education, they are still encouraged to find a husband and start a family rather than focus on a career (Al-Dajani & Marlow, 2010; Hakki & Somach, 2012).

Students indicated that they perceive Jordanian business life to be dominated by men ($\mu=4.82$). Yet despite this, they did not think that it was culturally unacceptable for women to become entrepreneurs ($\mu=3.17$). The Forsa Project which is a UK based entrepreneurship and mentorship program states that around 38% of entrepreneurs in Jordan are women (Al Emam, 2014). However, students still feel that within this traditional Arab society, it can be harder for females to strike a balance between long work hours and their obligations as wives and mothers ($\mu=4.72$). This could be a reason why a growing number of Jordanian female entrepreneurs operate businesses from home or on-line (Al-Dajani & Marlow, 2010) giving them the flexibility to spend more time with their families.

Jordanian parents have a strong influence on the career choice of their children. Due to cultural values and the prestige associated with certain occupations, Jordan has a surplus of doctors, engineers and lawyers. A significant number of these graduates are either unemployed, forced to work abroad mainly in the Gulf countries or are working in sectors that are unrelated to their field of study (Caputo, Lombardi, et al., 2015). Liñán (2008) emphasizes that society plays an important role in encouraging entrepreneurial behaviour and that people are more likely to start their own business in environments that look positively at new venture creation. As entrepreneurship is seen as a means to develop human potential and to create employment, students were also asked about the value Jordanian society attaches to entrepreneurial activity. A mean score of 3.85 indicates that students are really not sure about how their society views entrepreneurs and whether this viewpoint would be an actual barrier to any future entrepreneurial activity.

Research has also shown that students who come from a family of entrepreneurs are more likely to engage in entrepreneurial activity (Altinay, 2008; Basu & Virick, 2008; Gurel et al., 2010). It's interesting to note that in this sample despite the fact that nearly 60% of respondents came from

such a background, only 26% wanted to open their own business and a further 21% indicated that they would rather work for the private sector. This is a very interesting point that needs further clarification. Is the lack of motivation for starting a business due to difficulties these females witness in their own family businesses or is it a culturally related matter where the business will automatically go to the male heirs and the females in the family are expected to marry and move on? Whatever may be the case, existing entrepreneurial role models in the family need to be further investigated.

6.2 Perceptions of university education and readiness for entrepreneurship

In many countries, the traditional model of higher education fails to adapt its curricula to the needs of the labour market and particularly the needs of SMEs who form the backbone of most modern economies. This often translates into business schools churning out graduates that lack the enthusiasm for starting their own business and have no idea about how to apply their classroom skills set to the real world. It is quite clear that a student's willingness to start their own business mostly depends on their knowledge of entrepreneurship, competency in certain business skills and the development of an entrepreneurial mind-set; factors that can all be taught and nurtured within the right university environment. Autio et al. (2011) found that the image of entrepreneurs and encouragement from the university environment had an impact on university students' entrepreneurial convictions in different cultural contexts. Lee et al. (2005) looked at the attitudes of university students in the US and Korea with regards to new venture creation. They concluded that each country should provide customized entrepreneurship education that reflects the realities of the local economy and marketplace.

In Jordan, fostering entrepreneurship has priority in the national agenda and education in this respect is believed to significantly impact the creation of new business ventures (The World Bank, 2015). A majority of business schools in Jordan have a course on entrepreneurship in their curriculum. In addition to universities, many public and private organisations provide different levels of entrepreneurship training. Both universities in this study offer an entrepreneurship course in their curriculum and respondents were asked if they had ever taken a course/training/workshop on entrepreneurship outside of their university environment. Nearly a third of the sample answered yes and only 38% of those indicated that they would like to open their own business. Over 40% of the respondents indicated that they had first heard about

entrepreneurship in university. Only 21% of students stated that they had first heard about this concept in high school.

Creativity and innovation play a fundamental role in entrepreneurship (Boccardelli & Magnusson, 2006; S. H. Lee & Wong, 2004) and in this respect the respondents felt that they were not lacking the necessary skills in creativity and innovation that is needed to be an entrepreneur ($\mu=2.71$). Yet when asked to assess the conduciveness of the university environment in terms of starting a new business, most of their answers had a mean score of around 4 which denotes a 'neutral' response. Students are not really clear about what entrepreneurship entails and therefore were unable to provide more precise answers as to whether the environment at the university is conducive to encouraging entrepreneurship or not. Another reason may be that students were afraid to indicate their true feelings even though they were assured anonymity of their answers.

One aspect both groups of students tend to agree on, is the lack of practical application within courses ($\mu=5.06$). If students feel that their knowledge base is too theoretical, they may be hesitant to try and launch any potential business ideas that they may have. This supports the fact that business courses and particularly those in entrepreneurship should have a more practical approach, with a focus on market needs. That way, students are better able to assess their own abilities, the feasibility of their ideas and are able to recognise opportunities in the environment. This is also being advocated in the global debate about the shape and nature of entrepreneurship education within universities (European Commission, 2013; Gurel et al., 2010).

Finally, t-tests were conducted to see if there were any significant differences between both groups of female students. The findings show that there was a significant difference ($t= 3.598$, $p=0.000$) between both groups of females in terms of their overall perceptions of the barriers to entrepreneurship. Although both universities differ in terms of date of establishment, admissions policy, student numbers, classroom size and availability of certain resources and facilities, it is interesting to note that there was no significant difference between female students from private and public universities in terms of their overall perceptions of the relevance of university education received ($t= 1.451$, $p=0.148$).

7. Conclusion and implications for future research

A majority of women in the Arab world continue to face restrictions in political, economic and social spheres, despite positive developments that were triggered by the Arab Spring (Hakki & Somach, 2012; Mostafa, 2005). While women in Jordan enjoy more rights than some of their counterparts in the Middle East and have one of the highest female literacy rates in the region, traditional gender roles and Arab culture force them to remain under-represented in the labour market. According to the World Bank (2015), women's participation in the economy does not exceed 15%. As the region struggles with conflict and instability on a daily basis, the future looks bleak, especially for the younger generation. Over the past 10 years, dramatic steps have been taken to establish a functioning entrepreneurial ecosystem within the Kingdom. Thousands of people have benefited from boot camps and training, mentoring programs, funding and incubator facilities (Caputo, Mehtap, et al., 2015). Yet these efforts have not been enough.

The finding of this study provides a useful insight into the nature of entrepreneurial environment in Jordan as seen through the eyes of female business students. In a country where female literacy rates and the number of female graduates are high, it is disappointing to note that female labour force participation rates remain low (The World Bank, 2015). While this has been attributed to a number of socio-cultural and economic reasons, the major reason is that most Arab women tend to see their role in society as a traditional one of wife, housekeeper and mother – regardless of their level of education. Yet, there has been a trend in recent years of an increasing number of Jordanian women starting and operating businesses from home mainly with the support of technology and social media (Al-Dajani & Marlow, 2010). This way they are able to create a work-life balance which is more culturally acceptable. The findings of the study show that the Jordanian government needs to work with different stakeholders in order to put in place a deliberate public policy that encourages female entrepreneurial activity as a means of fostering economic and social development. This will also require a breakdown of cultural taboos and gender stereotypes. Encouraging entrepreneurship from the grassroots level and up, will bring sustainable solutions to injustices that exist within society. Access to micro-financing and encouraging the formation of incubators and accelerators not only in the cities but also in rural areas, could really make a world of difference to a woman, her family and the community at large. Since financial obstacles and risk were perceived to be the biggest barrier to starting a new business, the government needs to provide easier access to capital, reduced interest rates for start-ups, loan guarantees and a revision of the administrative system and business laws. The

power of the media should be harnessed to present news and information that delivers positive messages about entrepreneurship-especially successful women. From a religious perspective, the prophet's wife Khadija, sets an important precedence for encouraging female entrepreneurship among young Arab females.

There is much focus on the potential of tertiary education institutions in facilitating business start-ups and fostering an entrepreneurial mind-set. Stimulating entrepreneurship interest among students in these institutions is one way of curbing the high levels of youth unemployment amongst Jordanians and in particular young female graduates(Caputo, Lombardi, et al., 2015). Entrepreneurship education needs to be introduced at the high school level and curricula at Jordanian universities needs to be revised in line with global trends and the needs of the marketplace. An emphasis on skills development and practical applications that compliment theoretical knowledge is needed, if universities are to serve as catalysts for start-ups in Jordan. A new generation of Jordanian youth who are job creators rather than job seekers must be cultivated.

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