

Entrepreneurial intentions of young women in the Arab world: Socio-cultural and educational barriers

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Mehtap, S., Pellegrini, M.M., Caputo, A., & Welsh, D.H.B. (2017). Entrepreneurial intentions of young women in the Arab world: Socio-cultural and educational barriers. *International Journal of Entrepreneurial Behavior & Research*. DOI: 10.1108/IJEBR-07-2017-0214

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<http://www.emeraldinsight.com/doi/full/10.1108/IJEBR-07-2017-0214>

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Abstract:

Purpose

Female entrepreneurship is a growing segment in the context of developing countries and has the potential to become a driving force for economic development. However, research suggests that females are less inclined toward entrepreneurship when compared to their male counterparts. This fact is related to a complex mix of causes such as the belief that entrepreneurship is a male domain, certain conditions within the economic and social environment and a general lack of confidence with regards to succeeding in such activities. Barriers to female entrepreneurship are prevalent in the patriarchal Arab world. The purpose of this paper is to measure the perceptions of female Jordanian business students with regards to the socio-cultural barriers to entrepreneurship. It also looks at the conduciveness of the education they are receiving in terms of new venture creation.

Design/methodology/approach

A sample of 254 female business students from two universities in Jordan was asked to evaluate various factors within the entrepreneurial ecosystem, including the business education they are currently receiving. A factor analysis has been performed to show which relevant elements may prevent young women from engaging with entrepreneurial activities. A comparison of perceptions about the educational system has also been presented to understand how a supportive educational environment may affect the previous analysis.

Findings

The results indicated that a strong supportive education system to some extent may reduce the perception of potential barriers for entrepreneurship but the overall impact can be limited.

Conversely, an educational system lacking a supportive environment and concrete initiatives can deeply affect and worsen the fears of engaging in entrepreneurship amongst female students.

Originality/value

The role of women in the Arab world is quite marked and the reluctance of women to take a more decisive engagement in entrepreneurship may be reinforced by conservative, societal traditions. A supportive education system has the potential to act as a catalyst to encourage active female participation in the entrepreneurial domain, thus helping to spur economic development in the region.

Keywords: Middle East | Education | Female entrepreneurship | Entrepreneurial intentions | Arab women | Gender barriers

Article:

Introduction

Progress in the education of Arab females has been impressive, with females constituting more than half of the university graduates in the Arab world (Majcher-Teleon and Slimène, 2009). Unfortunately, despite years of investment in education, the Arab female labor force participation rates are still the lowest in the world (Barcucci and Mryyan, 2014; ILO, 2014). Females are constrained in their choice of career by external factors which are mainly in the form of family and societal pressures stemming from the patriarchal and tribal traditions of Arab society (Sidani, 2005).

In a region where youth constitute nearly 60 percent of the population, finding suitable employment has become a major challenge. This challenge is even tougher for females. Employment challenges in the region have been attributed to economic instability, socio-cultural norms and taboos, broken promises in the aftermath of the Arab Spring, and a lack of diligent public policy. Higher education systems that are based on rote memorization and which fail to equip graduates with the necessary skills to succeed in the real world have also contributed to the current situation. Many graduates pin their hopes on securing a job in the already overcrowded public sector, only to be disappointed in the transition process from education to employment. As the regional unemployment figures steadily rise, so do feelings of despair amongst its youth and specifically amongst the young female population. However, entrepreneurship could be the key to labor empowerment in a region where neither the government nor the private sector is able to create enough jobs to meet the ever increasing demand (Global Entrepreneurship Monitor (GEM), 2014). Entrepreneurship would allow young women to take charge of their future, allowing them to become self-actualized individuals who are job creators rather than job seekers (Al-Dajani and Marlow, 2013).

Research suggests that females are less inclined toward entrepreneurship than their male counterparts (Díaz-García and Jiménez-Moreno, 2010; Mueller and Dato-on, 2010; Wilson et al., 2007). This has been attributed to a number of complex reasons. Among the reasons is the belief that entrepreneurship is a male domain, certain conditions within the economic and social

environment which are in favor of males, lack of training and education and a general lack of confidence with regards to succeeding (Davidson et al., 2010; Pathak et al., 2013). Recent scholarly interest in female entrepreneurship has also spurred a number of related studies in the Middle East, with most studies concentrating on the identification of entrepreneurial characteristics and the challenges faced (Al-Dajani and Marlow, 2010; Caputo, Mehtap, Pellegrini and Al-Refai, 2016; Goby and Erogul, 2011; Hattab, 2012; Itani et al., 2011; Jamali, 2009; Mehtap, 2014b; Welsh, Memili, Kaciak and Al Sadoon, 2014). Research has found that female entrepreneurs in the conservative and patriarchal societies of the Arab world face more challenges and barriers than their male counterparts (Al-Dajani and Marlow, 2010; Al Gharaibeh 2011; Caputo, Mehtap, Pellegrini and Al-Refai, 2016; Hattab, 2012; Jamali, 2009; Verme, 2014). Krueger (2007) states that there is a paucity of research focusing on the antecedents or factors that encourage or inhibit entrepreneurial intentions among females. This is also the case in the Arab world. Studying for a business degree is popular among Arab females, yet the link between entrepreneurial intentions and business education has been neglected. Intentions form the basis of behaviors, and a well-rounded education that focuses on market-related skills can equip individuals with the necessary tools to start their own business and accumulate the necessary business acumen needed to survive and flourish in today's global economy (Rialti et al., 2017). Despite some controversy about the need for entrepreneurship education (for an extended review please see Nabi et al., 2017), a sound business education still has the potential to nurture entrepreneurial intentions amongst university students (Liñán, 2008; Kakouris, 2016).

Jordan was chosen as a context of analysis for this study for a number of reasons. First, Jordan has a highly educated, dynamic, and young population who is facing increasing levels of unemployment and overcrowding in the public sector, where traditionally the majority of the workforce has been employed. Second, following the boom in the IT sector, the development of entrepreneurial activity is at the top of the national agenda and highly supported by the ruling Hashemite Royal Family (Caputo, Lombardi, Akeel, Almallah, Dakkak and Qubbaj, 2016; Caputo, Mehtap, Pellegrini and Al-Refai, 2016). Multiple stakeholders believe that entrepreneurial activity can provide a solution to the unemployment problem in Jordan, a country lacking in natural resources and one that relies heavily on its human capital for economic development. Third, there is a rising level of interest in improving the status of women in the country and encouraging them to play an active role in economic development. It is well known that women play a pivotal role in elevating the well-being of their families and particularly that of their children. If allowed to actively participate in the workforce, they can contribute to the overall economic development of a country. Additionally, the paucity of research pertaining to female entrepreneurship in Arab countries (Caputo, Mehtap, Pellegrini and Al-Refai, 2016; Chamlou et al., 2008; De Vita et al., 2014; Welsh et al., 2001; Welsh, Kim, Memili and Kaciak, 2014; Welsh, Memili, Kaciak and Al Sadoon, 2014; Welsh, Memili, Kaciak and Ochi, 2014) and Jordan in particular, with its growing prominence among Arabic speaking countries, warrants further investigation.

This study gauges the perceptions of female business students regarding socio-cultural barriers to entrepreneurship in Jordan. At the same time, the study investigates the role of the higher education system by looking at how female business students perceive the education they are receiving in terms of preparing them for a future in entrepreneurial endeavors.

The contributions of this research are at least twofold. First, Jordan is an interesting context in which to measure female entrepreneurial intentions and the potential barriers to entrepreneurship. Jordan is a predominantly Muslim, patriarchal, and tribal society. The number of females pursuing higher education is high compared to other Arab states. Yet due to certain socio-cultural norms, female labor force participation rates are low (Ahmad and Xavier, 2011; Al-Sadi et al., 2013; Chamlou et al., 2008), resulting in a loss of national productivity. Jordan is also one of the few stable countries in a region torn by war. However, the steady influx of refugees from neighboring countries have overburdened the infrastructure and public services and exacerbated the already high unemployment levels (Barcucci and Mryyan, 2014). Therefore, there is an urgent need to encourage entrepreneurial attitude and increase the entrepreneurial skillset of the population, especially females by understanding the barriers and entrepreneurship education needed. Second, the paper provides evidence that can be utilized in shaping public policies targeting the educational system and the inclusion of entrepreneurial courses within the curriculum offered. This research to some extent strengthens the idea that a supportive education system can promote entrepreneurship, especially in terms of changing the popular appeal of such activities. Even more interesting is the effect of a negative perception of the education received that can really reduce the inclinations of female students in pursuing an entrepreneurial career, thus putting at risk an entire generation of potential female entrepreneurs.

This paper proceeds as follows. First, a literature review on entrepreneurial intentions in the context of female entrepreneurship and the impact of entrepreneurial education is presented. The paper proceeds with the methodology, results, implication of the findings, and avenues for future research.

Entrepreneurial intention and female entrepreneurship

Entrepreneurial activities are on the rise globally, with many governments taking deliberate action to encourage and increase the formation of start-ups and new ventures (GEM, 2009, 2014). This increased attention to entrepreneurship is due to a wealth of evidence that indicates that entrepreneurial activities are directly correlated with the creation of wealth and an increase in gross domestic product (GDP).

Several elements can help or hinder entrepreneurship, such as external conditions at the micro- and macro-level, as well as internal conditions that are related to the individual.

At the macro-level many elements have been found to provide a favorable environment for entrepreneurship, such as a liberal market structure and dynamics (Boccardelli and Magnusson, 2006; Van Stel et al., 2007); easy access to financing (Carter et al., 2007; Itani et al., 2011; Kim et al., 2006; Kwong et al., 2012; Sandhu et al., 2011; Welsh, Kim, Memili and Kaciak, 2014; Welsh, Memili, Kaciak and Al Sadoon, 2014; Welsh, Memili, Kaciak and Ochi, 2014); a favorable government policy in terms of taxation, funding programs, a reduction in bureaucratic procedures related to starting a business (Ahmad and Xavier, 2011; Carter et al., 2003; Goby and Erogul, 2011; Minniti, 2008); and political and economic stability (Lerner, 2010; Movahedi and Yaghoubi-Farani, 2012; Taylor and Plummer, 2003). Conversely, a lack of these elements may create barriers for the development of entrepreneurship. Likewise, various cultural and societal aspects, such as widespread views of entrepreneurship and on the role of entrepreneurs in the

society can promote or limit entrepreneurial activities (Baughn et al., 2006; Baughn and Neupert, 2003; Davidson et al., 2010; Gupta et al., 2009; Shinnar et al., 2012). For example, in Light and Dana's (2013) study on a remote Alaskan region, belonging to a particular ethnic group was found to be a disadvantage in terms of engaging in entrepreneurial activities, despite having almost the same conditions and resources as other ethnic groups.

The immediate environment of the entrepreneur, such as family, community, and business context, is considered to be an external condition at the micro-level and may represent another element that can encourage or discourage the level of engagement with such activities (Mueller and Thomas, 2001; Pruett et al., 2009). A supportive environment in terms of access to business information (Ettl and Welter, 2010; Sandhu et al., 2011), networking opportunities (Ahmad and Xavier, 2011; Al-Alak and Al-Haddad, 2010; Caputo, Mehtap, Pellegrini and Al-Refai, 2016; De Vita et al., 2014; Goby and Erogul, 2011; Rialti et al., 2017), as well as support from family and friends (Goby and Erogul, 2011; Franco et al., 2010; Pruett et al., 2009) have been found to stimulate entrepreneurship.

Finally, internal conditions, in terms of experience, personal traits, and aspirations, complete the picture about factors that could potentially facilitate entrepreneurship (Krueger and Brazeal, 1994; Krueger et al., 2000) and within this, access to formal education and training is a crucial element (Dabić et al., 2012; Dickson et al., 2008; Lüthje and Franke, 2002; Packham et al., 2010; Pruett, 2012). Personal factors, such as aversion to risk, fear of failure, aversion to stress, and hard work are also common barriers faced by aspiring entrepreneurs (Taormina and Lao, 2007; Wang and Wong, 2004; Welsh, Kim, Memili and Kaciak, 2014; Welsh, Memili, Kaciak and Al Sadoon, 2014; Welsh, Memili, Kaciak and Ochi, 2014; Yordanova and Alexandrova-Boshnakova, 2011). As a matter of fact, a "fear of failure" has been cited as the top reason given worldwide for not starting a business (Sandhu et al., 2011).

All the previous elements can be considered as "antecedents" to entrepreneurship and so affect the potential sphere of the subject. For this reason, the literature refers to them as antecedents of entrepreneurial intentions. Intentions, despite not being actual behaviors, are one of the best predictors of the entrepreneurial activities since this event is rare and difficult to measure. One of the most cited models used to explain such intention is Ajzen's (1991) theory of planned behavior (Nabi et al., 2010). This model is based on three factors – social norms, attitudes, and perceived control. Social norms refer to the perceived acceptance or aversion toward a specific behavior in the immediate environment of a person. Later, this factor evolves to include the influences that the subject perceives to be present in the cultural and social context at large (Sesen, 2013).

Attitudes are personal judgments and evaluations in relation to a certain action. This element is often considered in terms of desirability or the appeal of outcomes that result from a certain action (Shapiro and Sokol, 1982). Entrepreneurship in this case can be perceived as something particularly appealing and either internal and external conditions (at both micro- and macro-levels) can play a significant role in shaping these psychological perceptions (Mueller and Thomas, 2001).

The final element is related to the self-confidence of the individual in performing a task or a behavior. This element is closely related to, if not completely overlapping, with the concept of self-efficacy developed by Bandura (1997). Thus, entrepreneurial intention can be undermined by an individual that is less confident, or considers to have no power to control specific tasks necessary to perform such an action. This element would be related to the internal conditions of an individual that are discussed previously in the paper. A strong “gender” effect is also present in the discussion of entrepreneurial intentions. Studies have found that young adult females tend to show less propensity toward entrepreneurial activities than males (Díaz-García and Jiménez-Moreno, 2010; Mueller and Dato-on, 2010; Wilson et al., 2007). As a result, most of the countries surveyed by the GEM (2014) have male entrepreneurs outnumbering their female counterparts.

Each of the three elements previously discussed can potentially reduce female propensity to engage in entrepreneurial activities. In relation to social norms, Baughn et al. (2006) drew attention to the importance of country-specific, socio-cultural contexts for entrepreneurship. The authors explain how stereotypes, gender role ideologies, and social acceptability of entrepreneurship as a career choice are highly influential in the development of entrepreneurship. In addition, in most of the Arab world, women still need to receive approval from a proxy male member of the family in order to launch a business (Al-Dajani and Marlow, 2010). In this kind of “surroundings,” it is not surprising that females may consider it less socially acceptable to pursue an entrepreneurial career.

Entrepreneurship is predominantly perceived as an achievement-oriented, masculine endeavor (Díaz-García and Jiménez-Moreno, 2010; Marlow and McAdam, 2013; Sweida and Reichard, 2013). Therefore, the common stereotypical view of women being subservient to men clashes with the inherent nature of entrepreneurship and the propensity toward launching an entrepreneurial firm may be seen as an impairing factor for a woman. For this reason and even unconsciously, the evaluation of the desirability of such an activity may be reduced in favor of more gender stereotype-aligned activities. In the Arab world, gender stereotypes are socially reinforced and a woman’s first responsibility is to be committed to her husband, household, and children (Abdalla, 1996; El-Rahmony, 2002).

Finally, females show less self-efficacy than their male counterparts (Díaz-García and Jiménez-Moreno, 2010; Wilson et al., 2007). Again, this can be related to gender stereotypes. If an activity is considered male oriented, then women will perceive a lack of such traits and skills necessary to perform that activity (Sweida and Reichard, 2013). For this reason, scholars have called for major attention to be paid to gender biases worldwide, including those in education and especially at the primary levels (Mueller and Dato-on, 2010). In response to this call, our study addresses the following research question: RQ1.

Which personal and socio-cultural (micro- and macro-level) factors are perceived to be potential barriers to female entrepreneurial activity in Jordan?

Education and entrepreneurship

The role and effect of education, including training, on entrepreneurial activities has been a major topic of discussion in the last decade (i.e. Dabić et al., 2012; Dickson et al., 2008; Fayolle et al., 2006; Kakouris, 2016; Mehtap, 2014b). The term “Entrepreneurial Education” refers to a holistic approach to empowering and developing entrepreneurs. This is advocated in place of traditional schooling on the basics of how to run a business. Topics include creativity, opportunity recognition and exploitation, and where the ultimate aim is to foster social development (Sánchez, 2011).

The USA is recognized as pioneers in the field of entrepreneurship education. Entrepreneurial education has been part of the curricula of US higher education institutions since the 1950s and has adapted to meet the emerging needs of nascent entrepreneurs (Wilson, 2008). Scholarly efforts on the importance of formal education as a prerequisite to entrepreneurial initiatives have forged two schools of thought. The first school argues that education improves creativity and provides the necessary skills and mindset to recognize and exploit business opportunities (Dickson et al., 2008; Gürel et al., 2010; Lüthje and Franke, 2004). However, scholars also criticize entrepreneurial education for being redundantly focused on entrepreneurial processes, such as opportunity recognition and marketing strategies, rather than on skills and attributes needed for success (Gürel et al., 2010). Conversely, the second school argues how formal education constrains the entrepreneurial spirit by placing too much emphasis on conforming, which is seen as a restricting factor in terms of creativity and innovation, making individuals more risk averse and less tolerant of ambiguity (Gibb, 2002).

Despite the ongoing debate and conflicting views, formal entrepreneurial education was found to be a determinant in the choice of entrepreneurship as a career option (Henderson and Robertson, 2000) and there have been calls for worldwide reforms aimed at embedding entrepreneurship education into existing systems (Gibb, 2002). More recently, university graduates between 25 and 34 years of age were also found to show the highest inclination toward starting their own business (Liñán et al., 2011). The potential of universities to have a significant impact on entrepreneurial intentions of nascent entrepreneurs is undeniable and highly supported in the literature (Cheng et al., 2009; Dabić et al., 2012; Packham et al., 2010; Schwarz et al., 2009). Formal education in entrepreneurship is seen, by both researchers and policymakers, as a mean of encouraging innovation, risk taking, creativity, and critical thinking skills that will lead to job creation and sustainable economic growth (Borozan and Dabić, 2008; European Commission, 2010; Rialti et al., 2017). As a consequence, there is a stronger focus on the process of new venture creation within entrepreneurship education and creating graduates with a global mindset and skillset who are job creators rather than job seekers (Mehtap, 2014a).

The education systems in the countries that make up the Arab world offer some elements of commonality. Rote learning is usually the base of education systems. Classrooms are often overcrowded. Education takes place in an environment that does not encourage critical thinking and the ability to think out-of-the-box. The Arab world is made up of 22 countries and in 1953 had only 13 universities. According to the Association of Arab Universities, this number has grown to more than 500 in 2012. The sector is almost equally distributed between private and public institutions and employs around 250,000 faculty members. According to UNESCO, there

were more than seven million students enrolled in higher education institutions in the Arab world in 2007, a 30 percent growth rate when compared to the year 2000. Despite the increase in the number of institutions offering higher education, competition to secure a seat in a university is fierce and often getting into a university is a matter of life and death. Unfortunately, a majority of the 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. Only 17 universities in the region have centers for entrepreneurship and only five offer a major in entrepreneurship (WEF, 2011). In a region characterized by deep economic divides amongst Arab states, social tensions (e.g. the Arab Spring), wars, and where youth make up the majority of the population, entrepreneurship becomes a necessity. By creating job opportunities, entrepreneurship contributes to the improvement of the economic conditions of a wide proportion of Arab citizens, and consequently enhances the status of women (Caputo, Lombardi, Akeel, Almallah, Dakkak and Qubbaj, 2016; Caputo, Mehtap, Pellegrini and Al-Refai, 2016; Mehtap, 2014a). This major issue is addressed in the form of a second research question: RQ2.

How conducive is business education in shaping the entrepreneurial intentions of female university students in Jordan?

Background on the Hashemite Kingdom of Jordan

The Hashemite Kingdom of Jordan is a developing country situated in the middle of strife and turmoil, yet is known for its stability and success in fostering entrepreneurship. Jordan is one of the very few countries in the Middle East (besides the Gulf nations), which is safe, stable, and has a vibrant business environment. This is evident in the fact that it is home to multinational companies, non-governmental organizations and United Nations agencies.

Jordan has an estimated population of around eight million people, of which more than half is under 24 years of age. In terms of demographic distribution, Jordan represents an interesting case. It is estimated that half of its population has Palestinian origins, moreover the country is host to more than 600,000 registered refugees from Syria and Iraq. As a consequence of historical events, Jordan has quite a heterogeneous population. Religiously, Sunni Muslims account for the majority of the population (92 percent), various Christian denominations account for 6 percent, and the rest are estimated to be Shi'a Muslims and Druze. From an ethnic perspective, the population is mostly Arab with Circassians and Chechens forming slightly more than 3 percent of the population. The Jordanian society is collectivist, paternalistic, patriarchal, and tribal. Religion plays an important role in its governance. While the way Islam is practiced may vary from country to country, the Islamic religion has an important influence over societal norms, political systems, and everyday life. The Jordanian legal system is also based on the Sharia (religious) law.

Despite the high level of human capital, the country is poor in natural resources and heavily reliant on foreign aid and remittances from Jordanians living abroad. The services sector accounts for more than 70 percent of GDP (The World Bank, 2015). Such a diverse and welcoming environment offers an interesting context of analysis for any researcher.

Women constitute a significant proportion of the population of Jordan, yet a variety of economic, social, and cultural factors largely inhibit their potential to make a significant contribution to the overall economic development of their country. The traditional viewpoint that women must be committed to their homes and children is still predominant within Arab societies (Abdalla, 1996; El-Rahmony, 2002). Consequently, men are the principle breadwinners and solely responsible for providing for their wives and families. Jordanian society is no exception. Therefore, this predominant mindset explains why Arab women constitute only 25 percent of workers in the Arab world, despite high levels of literacy (Barcucci and Mryyan, 2014; ILO, 2014). In some circles, Islam is also blamed for limiting the basic rights of women and for encouraging gender discrimination (Ahmad and Xavier, 2011; Al-Sadi et al., 2013; Itani et al., 2011). However, in reality and when interpreted in the correct context, Islam provides women with many economic and legal freedoms, including the power to own a business and manage their 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 historical 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 who employed the prophet on a commission basis. This allows us to argue that Islam is not a constraining factor for women's participation in economic activity; rather social customs and tribal traditions create barriers for women. Despite the high literacy rates amongst Jordanian women (Barcucci and Mryyan, 2014; Majcher-Teleon and Slimène, 2009), societal norms still encourage them to find a husband and start a family rather than focus on a career and economic empowerment (Hakki and Somach, 2012).

With a growing young and dynamic population, one of the main goals of the Jordanian Government is to increase access to higher education and establish a knowledge-based society. Indeed, Jordan has seen increasing school enrollment rates over the previous century, which has resulted in a rapid rise in the literacy rate. In 1952, the literacy rate was 33 percent and grew to 85 percent in 1996. In 2009 it grew to 94 percent, making the country one of the most literate in the world. Jordan is the highest spender on education in the region, investing more than 20 percent of its GDP. Around 230,000 students are currently enrolled in ten public universities, 17 private universities, and 51 community colleges (TEMPUS, 2012). Yet, despite high literacy rates, the unemployment figure amongst youth (15-24 years of age) stands at nearly 30 percent (Central Intelligence Agency, 2014). There is a strong belief that Jordan's human capital combined with entrepreneurial activity is a pathway to growth and prosperity, not only at home but in the greater region.

The boom in the ICT sector fueled the entrepreneurship movement in Jordan. Currently, the right combination of encouragement and protectionist measures is helping entrepreneurship to spread to other industries, in the hope of bringing prosperity to all sections of the population. In Jordan, fostering entrepreneurship is a priority set out in the national agenda (Caputo, Mehtap, Pellegrini and Al-Refai, 2016) and education is believed to significantly impact the creation of new business ventures (Galloway and Brown, 2002; Lüthje and Franke, 2002).

Female entrepreneurship in Jordan is a growing segment. The past decade has witnessed a steady increase in the number of Jordanian female entrepreneurs, allowing Jordan to become a good context for research. 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 female entrepreneurs in Jordan are still expected to pursue their business endeavors without compromising their main responsibilities as wives and mothers. In a recent analysis of 28 institutions that provide support for female entrepreneurs in Jordan, Caputo, Mehtap, Pellegrini and Al-Refai (2016) emphasized the importance of such supporting opportunities in order to nurture female entrepreneurship. The authors concluded that there is a need for a sound entrepreneurial ecosystem that is female-friendly and called on the government to encourage entrepreneurship education and better dissemination of information and training. Mehtap (2014a) highlighted the importance of entrepreneurial education for the economic development of Jordan and provided a case example of how European university partnerships under the EU-TEMPUS framework were successful in developing both undergraduate and graduate courses in entrepreneurship in the Kingdom. Additionally, another recent study by Caputo, Lombardi, Akeel, Almallah, Dakkak and Qubbaj (2016) looked at the inclination of Jordanian business students to work for start-ups after graduation and found that entrepreneurial education and participation in various entrepreneurial events increases the willingness and commitment to work for start-ups. This study aims to contribute to the limited body of research focusing on entrepreneurship in the Jordanian context by answering the research questions concerning women entrepreneurs and the influence of the educational system on entrepreneurial propensity.

Method

Survey development

Based on models provided in the existing literature on entrepreneurial intentions (e.g. Lüthje and Franke, 2004; Shapero and Sokol, 1982) and considering the context of analysis (as in Kibler, 2012), a pool of 25 items that measure a number of possible antecedents for female entrepreneurial intentions, especially in terms of potential barriers and challenges were created. The questions were adapted to reflect the culture and business environment of Jordan. A seven-point Likert scale was used. Every item within the scale was validated through a panel of regional experts in the field of entrepreneurship by using the Delphi method (Okoli and Pawlowski, 2004) to ensure content validity. Additionally, a pilot study was conducted with a limited number of participants who had similar characteristics to the sample used in this study with no concerns raised. The questionnaire is composed of three sections: demographics, the environment and potential barriers to entrepreneurship, and the entrepreneurial education offered by the university. Reliability analysis for both scales yielded a reliability coefficient (Cronbach's α) of 0.83 and 0.75, respectively.

Sample

Respondents were 254 students recruited via network sampling by one of the investigators. This data collection technique entails individuals who, based on their contacts or snowball sampling, recruit respondents from their social network (Demerouti and Rispens, 2014). Paper-based questionnaires were distributed during lectures resulting in the collection of 130 questionnaires from the private university and 124 from the public university. Students are often used to study the phenomenon of entrepreneurship (Fayolle et al., 2006; Liñán and Chen, 2009). Based on the

proposed research questions and in line with previous research, university students were chosen as the focus of this study. Dabić et al. (2012) argue that “younger people are more willing to be self-employed.” The researchers also agree with this statement and believe that today’s university students will be the next generation to face the challenge of labor market entry or be forced to seriously consider self-employment. The participants were all female business students drawn from two well-established universities in Amman, the capital of Jordan. While this may represent a limitation, it is due to the fact that more than half of the population is concentrated in the capital. Both universities have a history of excellence, their business schools are among the top in the country, and the medium of instruction is in English. The private university has a reputation for providing niche degree programs and its graduates are highly sought out by the industry. 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, and 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 provides a basis for comparison.

Statistical procedure

The first part of the study tested how female students perceive the Jordanian context in terms of starting a business. An exploratory factor analysis (EFA) was conducted on the perceived barriers to entrepreneurship in Jordan. The principal component method was used for the extraction of factors and their number was decided according the Kaiser rule (i.e. factors with eigenvalues higher than 1), that contain enough explanatory power in terms of variance. Since the literature has demonstrated that the antecedents of entrepreneurial intentions are often correlated with each other (Liñán et al., 2011; Wilson et al., 2007), a technique of oblique rotation (direct oblimin) was adopted. As a control mechanism, factor analysis with an orthogonal rotation (varimax) was performed. As a result of this, the number of factors and the associated questions have remained stable. Only the internal consistency has deteriorated and this is an indication of the correctness of the technique used. The score of the factors was calculated using the Andersen-Rubin method.

The first results of the EFA were not optimal; specifically one question showed cross-loading scores, and its variance was distributed to more than one factor but with limited percentages for both. For this reason, the analysis was repeated after removing the cross-loaded question (number 14). This time an eight-factor solution with eigenvalues higher than 1 and with clear cut-off points for each question (loading value around 0.50) was obtained. The portion of variance explained rose to 69 percent (more than four points). A series of robust checks were run to assure the validity of the technique; the Bartlett’s test for sphericity was significant (0.0001), while the KMO’s measures for testing the adequacy of data was 0.690. This is consistently higher than the minimum acceptance level of 0.60.

The Cronbach’s α scores for each factor were also checked. Despite the fact that some of the factors did not show an extremely high score for an exploratory study, the minimum threshold (0.65) has been met: attitude 1 (0.786); self-efficacy 1 (0.703); social norms 1 (0.811); self-efficacy 2 (0.813); self-efficacy 3 (0.724); social norms 2 (0.732); attitude 2 (0.680); attitude 3 (0.659).

The results of the EFA are summarized in Table I.

	Attitude (1)	Self- efficacy (1)	Social norms (1)	Self- efficacy (2)	Self- efficacy (2)	Social norms (2)	Attitude (2)	Attitude (3)
b11	0.845							
b22	0.805							
b25	0.795							
b10	0.511							
b20		0.802						
b6		0.655						
b13		0.558						
b12		0.496						
b18			-0.864					
b21			-0.823					
b19				-0.88				
b3				-0.82				
b24				-0.808				
b1					0.754			
b4					0.719			
b2					0.655			
b23					0.498			
b8						-0.902		
b7						-0.875		
b9						-0.496		
b5							0.746	
b17							0.628	
b16								0.739
b15								0.728

Table I Exploratory factor analysis of the barriers perceived by female students

The second part of the study aimed to measure the impact of education on the perception of barriers to entrepreneurship. Thus, the perceptions of female students regarding the university education received were analyzed. Again, an EFA was performed on the part of the questionnaire that is dedicated to gauging female students' evaluations of the education system. However this time, since there was no theoretical motivation to assume correlation between factors, a standard orthogonal rotation (varimax) was carried out. Again, Kaiser's rule was used to decide the number of factors and the score was calculated through the Anderson-Rubin method.

The second EFA showed consistent results after the first attempt. The solution shows two factors with all univocal loadings that in total explained 60 percent of the variance. Again robust checks were satisfying; the Bartlett's test for sphericity was significant (0.0001) and the KMO's measures was good and above the threshold of acceptance (0.785). Consistent indexes were obtained with respect to the Cronbach's α of the two factors: educational support (0.798) and education lack (0.755). In order to assess the impact of the education being received by the two groups of female students, these two factors were transformed into dummy variables. For the

first factor, a value of 0 was assigned to those students who were below the average (i.e. low perceptions of the support offered by the educational system) and a value of one to those above the average (i.e. those with a strong perception of the support offered by the education system). For the second factor, the situation was overturned. The value of 0 was assigned to those students below the average (i.e. low perception in terms of lack of the education system) and conversely one to those who have a strong perception of this lack. These transformed variables were used in order to run an ANOVA and to test if the perceptions of the barriers to starting a business differed amongst the two groups of female students.

Results

This section presents the results of a total of 254 female business students who responded to the questionnaire. More than 80 percent of the respondents were between 18-21 years of age and had attended private schooling prior to entering the university. In total, 83 percent had graduated from the Tawjihi stream (national high school system) and 8 percent had graduated from a school that follows the British IGCSE system. Totally, 38 percent were enrolled in their third year of study and 27 percent of the respondents were working and studying at the same time. Nearly 60 percent of the respondents reported that they had at least one family member who was an entrepreneur. When asked to indicate the gender of the entrepreneur in the family, all of the respondents indicated a male. Despite this, respondents reported that they had first heard about entrepreneurship upon entering the university (43 percent), while only 21 percent had heard about entrepreneurship in high school. Only 28 percent had previously taken a course, workshop, or training session in entrepreneurship.

A quarter of the students indicated that they wanted to work for the private sector after graduation, and only 27 percent indicated that they would like to set up their own business. Nearly 50 percent of these students indicated that they hoped to open a business that would employ somewhere between 10 and 50 employees. Only 10 percent 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 percent), followed by the IT sector (16 percent).

Analysis of potential barriers to starting a business in Jordan

Students were asked to assess 25 factors that could be potential barriers to setting up a business in Jordan. Some of these factors were related to perceptions about their own entrepreneurial capabilities; others were related to government policy, social factors, and financial issues. In general terms, the highest barriers perceived by students were (in order of significance): the weak Jordanian economy ($\mu=5.09$), lack of access to financing ($\mu=5.05$), the fear of risk ($\mu=4.87$), gender issues (male dominance $\mu=4.82$), and difficulty balancing work and home life ($\mu=4.72$). Barriers 1, 2, and 4 are related to the perceptions that female students have about their environment and barriers 3 and 5 are related to the personal capabilities of the individual.

Each of the eight factors that were extracted from the EFA was categorized according to the antecedents for entrepreneurial intentions as explained by the theory of planned behavior (Ajzen, 1991). Table II shows how the factors correspond to the three types of antecedents of TPB:

attitudes, which are composed of three factors; social norms, which divide into two factors; and self-efficacy, which is composed of three factors.

Questionnaire items	Factors
10. I don't have networking skills and professional contacts needed to do business	Attitude 1 – economic and social contexts are not suitable
11. The economy in Jordan is bad	
22. Jordanian business life is dominated by men	
25. The region is unstable, its best to keep your money and wait and see	
6. I don't have the necessary skills and capabilities	Self-efficacy 1 – lack of confidence in personal skills
12. I am unable to recognise potential opportunities for doing business	
13. I know nothing about innovation/creativity	
20. To succeed you need someone with experience to mentor you	
18. Our society looks down on entrepreneurs	Social norms 1 – general support for entrepreneurship (negative)
21. Copyright/Intellectual property laws are not strong enough	
3. Lack of customers/clients for my business idea	Self-efficacy 2 – lack of characteristics associated with an entrepreneur
19. You need to have a degree in business-related subjects	
24. It is not culturally acceptable for women to be entrepreneurs	
1. Lack of money/capital	Self-efficacy 3 – lack of confidence in managing challenges of entrepreneurship
2. Scared of the financial risk involved	
4. Lack of relevant technical know-how/expertise	
23. It is hard to balance long work hours with private life	
7. My family would discourage me	Social norms 2 – close and business environment (negative)
8. My friends would discourage me	
9. The banks wouldn't give me credit	
5. Rules and regulations in Jordan	Attitude 2 – bureaucracy is against entrepreneurship (negative)
17. Too much government bureaucracy	
15. It's safer to work for someone else	Attitude 3 – entrepreneurship is not appealing
16. Someone else will copy my idea before I have a chance to establish myself	

Table II Description of the barriers

	Educational support	Educational lack
Uni1	0.852	
Uni2	0.809	
Uni3	0.751	
Uni4	0.618	
Uni5	0.541	
Uni6		-0.838
Uni7		0.823

Table III Exploratory factor analysis of the educational context perceived by female students

Questionnaire Items	Factors
1. The course work at this university prepares you well for self-employment	Educational support
2. The creative atmosphere at this university inspires us to develop ideas for new businesses	
3. The university actively promotes the process of founding a new company	
4. The courses offered at this university, provide the social and leadership skills needed by entrepreneurs	
5. This university has close ties to the private sector	
6. If I wanted to start my own business, this university would support me	Education lack
7. The courses at this university are too theoretical and need more practical applications	

Table IV Description of the educational context

Tables III and IV present the factor analysis performed and a description of the factors in relation to perceptions of the educational context.

After a transformation of these factors into dummy variables an ANOVA test was carried out to understand if the two groups of female students (i.e. those with a strong perception of support/lack and those with a low perception of support/lack in relation to the education received) really differ in terms of how they perceive barriers to starting a business in Jordan. The first test compares groups of female students with a strong perception of support offered by the education system with those with a low perception. As clearly depicted in Table V, the barriers perceived by these two groups do not really differ; the only significant factors are those related to attitude (with a level of significance of 0.01 for attitude 1, and 0.04 for both attitudes 2 and 3).

Factor	t-Test	Sig.
Attitude 1 – economic and social contexts are not suitable	2.352	0.019*
Self-efficacy 1 – lack of confidence in personal skills	0.966	0.335
Social norms 1 – general support for entrepreneurship	1.308	0.192
Self-efficacy 2 – lack of characteristics associated with an entrepreneur	-0.550	0.583
Self-efficacy 3 – lack of confidence in managing challenges of entrepreneurship	-1.149	0.252
Social norms 2 – close and financial environment	-1.289	0.199

Attitude 2 – bureaucracy is against entrepreneurship	-2.016	0.045*
Attitude 3 – entrepreneurship is not appealing	-1.999	0.047*

Note: *Sig.<0.05

Table V Perceived educational support comparison

This implies that a strong perception of the support provided by the education they are receiving at a university reinforces the positive judgments of female students regarding the appeal of entrepreneurship as a career choice. However, this effect is limited.

Alternatively, when a comparison was made between the group with a strong perception of lack in the education system and those with a low perception, many factors with significant differences were found. These are presented in Table VI.

Factor	t-Test	Sig.
Attitude 1 – economic and social contexts are not suitable	2.373	0.018*
Self-efficacy 1 – lack of confidence in personal skills	1.092	0.276
Social norms 1 – general support for entrepreneurship	-2.562	0.011*
Self-efficacy 2 – lack of characteristics associated with an entrepreneur	0.275	0.784
Self-efficacy 3 – lack of confidence in managing challenges of entrepreneurship	3.504	0.001***
Social norms 2 – close and financial environment	1.371	0.172
Attitude 2 – bureaucracy is against entrepreneurship	-0.865	0.388
Attitude 3 – entrepreneurship is not appealing	2.776	0.006**

Notes: *Sig.<0.05; **Sig.<0.01; ***Sig.≤0.001

Table VI Perceived educational lack comparison

Indeed, attitudes 1 and 3 (0.01 and 0.06, respectively), social norms (0.01), and self-efficacy 3 (0.001) indicate clearly that an educational system perceived as lacking has a detrimental impact on the whole set of antecedents that determine entrepreneurial intentions.

Discussion

Potential barriers and entrepreneurial intentions of female university students

With regards to the first research question, a number of socio-cultural factors and personal characteristics have been identified by the respondents as potential barriers to entrepreneurship in Jordan. It is not surprising that the weak Jordanian economy was seen to be the highest barrier to entrepreneurship among females. While the World Bank classifies Jordan as an “upper- middle income” country, it is still poor in natural resources and relies heavily on foreign debt and remittances. Unemployment figures stand around 30 percent. Currently, Jordan is struggling with a massive influx of Syrian refugees, which are creating a serious strain on the health and education infrastructure of the country and the availability of housing and jobs.

Lack of financing and fear of risk are often cited in the literature as impediments to entrepreneurship (Sandhu et al., 2011; Welsh, Kim, Memili and Kaciak, 2014; Welsh, Memili,

Kaciak and Al Sadoon, 2014; Welsh, Memili, Kaciak and Ochi, 2014) and Jordanian females seem to share this perception. Like much of the Arab world, gender stereotypes in Jordan are reinforced by society. Men are the breadwinners and a female's number one priority is her family and home. Therefore, it is not surprising that most participants feel that business life is dominated by men and that they would have trouble being accepted into the "boys club" and balancing work and private life if they were to open their own business.

According to the TPB (Ajzen, 1991) "Attitudes" refer to personal attitudes toward the behavior (i.e. engaging in entrepreneurship). Here female students feel that the economic and social environment of Jordan is not conducive to such activities, particularly the economic status quo, and furthermore such activities lack in appeal. The category "Social Norms" refers to judgment of the environment in terms of the planned behavior. It refers to the perceptions of what important people in the respondents' lives, such as family and friends, think about performing the behavior. In general females believe that they have the support of important social influences. Finally, self-efficacy refers to the perceived ability to execute the targeted behavior. Here, the respondents show a lack of confidence in their personal skills and they feel that they will not be able to cope with the challenges associated with entrepreneurship, such as finding capital.

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 labor 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 to the real world. Yet, it is also true that students' willingness to start their own business mostly depends on their knowledge of entrepreneurship, competency in certain business and entrepreneurship skills, and the development of an entrepreneurial mindset; 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.

Indeed, from the results it is possible to see that an educational system perceived as lacking has a detrimental impact on the whole set of antecedents that determine entrepreneurial intentions, thus providing an answer to the second research question. This fact, at the same time, reduces the appeal toward entrepreneurship as a career option, increases fears of the external surrounding environment, which is considered to be more and more hostile, impairs full personal development and undermines the confidence of students in their own skills and abilities (Mueller and Thomas, 2001).

Conclusions

The finding of this study provides a useful insight into the nature of the entrepreneurial environment in Jordan as seen through the eyes of female business students. The study advances entrepreneurship research by addressing the call for more studies in a non-US, non-European context. It draws attention to the role of universities in developing countries in terms of providing a supportive environment in which self-confidence and business acumen can be

developed and entrepreneurial intentions can be nurtured. This research also adds some insights to the existing literature on how entrepreneurial intentions vary across different cultural settings.

While education attainment is increasing across the region, more education is unfortunately becoming synonymous with more unemployment. This is predominantly due to the fact that education systems are far from the needs and realities of the private sector and graduates lack the necessary skills to be competitive in the dynamic business world. Coupled with this is gender and cultural stereotypes about the role of women in the Arab world and the stigma associated with working women. In Jordan, female literacy rates and the number of female graduates are high. Yet, it is disappointing to note that the female labor force participation rate remains at a low of 16 percent (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. Despite the setbacks, an increasing number of Jordanian women are starting and operating businesses from home, mainly with the support of technology and social media (Al-Dajani and Marlow, 2010). Running a home business allows these women to create a work-life balance which is more culturally acceptable.

How do the findings of this study translate into concrete steps that would motivate female students to pursue entrepreneurship as a viable career option? Furthermore, what lessons can other Arab and developing countries draw from this study? To answer this, some parallels may be drawn between the findings and Herzberg's (1960) two-factor theory. While this theory is not directly tested in the present work, the researchers consider it particularly useful to discuss the finding in the light of the theoretical classifications stated by the theory. According to Herzberg, the adoption of a two-stage process is required in order to motivate people. The first stage involves the elimination of the causes of dissatisfaction or factors that may annoy or threaten people (called "hygiene factors"). Mitigating these factors may placate people and increase a feeling of security that is the basic step to motivating them, even though this may not necessarily motivate them or enhance their performance. In relation to the results of this study, providing a supportive environment in the university that promotes an entrepreneurial mindset is the first step for female students to even consider entrepreneurship as one of the alternatives available to them (Mueller and Thomas, 2001). Curriculum would need to be revised in order to incorporate skills that are highly demanded by the workplace and theoretical classes need to be replaced by those which have a more practical and hands-on approach (Kolb, 1984). Universities need to experiment with more innovative pedagogical approaches to the study of enterprise development and growth. University administration would also have to cultivate closer ties with the private sector, angel investors, and incubator facilities. The second stage entails addressing the factors that are important for the intrinsic motivation of female students (Fayolle et al., 2006). These students need to be provided with opportunities for achievement, which could manifest itself as opportunities to develop business plans and try their hand at actually launching a business. Those who have been successful need to be acknowledged as well as their mentors and other supporting institutions. This would point to a need for successful marketing and PR campaigns. Further training and development opportunities outside of the classroom will help students to grow and to achieve their potential (Nabi et al., 2017). Such an environment has the potential to be perceived as supportive and effective as shown by the results of this study. It also seems to be able to stimulate entrepreneurial intentions, even if only partially.

Motives are generally related to goals. For most students the intrinsic motivation of attending university is the pursuit of a degree, which very often means preparing to become an employee rather than self-employed. If a generation of youth that prefers to engage in entrepreneurial activity is desired, then an understanding of what motivates them is necessary. This should be coupled with an emphasis on the desirability and appeal of self-employment. In parallel, there is also a need to eliminate factors that cause dissatisfaction with the educational experience. While it may not guarantee that students will go down the path of self-employment, it certainly does encourage it and provides the opportunity to channel entrepreneurial intentions into concrete actions.

Curricula at Jordanian universities needs to be revised in line with global trends and with entrepreneurship blended in all courses across the curricula (Mehtap, 2014b; Welsh, 2014). Additionally, an emphasis on skills development and practical applications that compliment theoretical knowledge is also needed if universities are to serve as catalysts for start-ups in Jordan. For example, the adoption of a competence-based delivery model (Nabi et al., 2017) seems to be a quite effective approach. Such a model implies an interactionist/constructivist pedagogical paradigm and puts at the central stage an active problem-solving process in real-life situations where students are challenged to organize their resources for action. Universities can also promote entrepreneurship by hosting conferences and workshops in the subject, maintaining close ties with the business sector through mentoring and training programs, and by establishing on-campus business incubators. Stimulating entrepreneurial interest among students in these institutions is one way of nurturing entrepreneurial intentions and has the potential to curb the high levels of youth unemployment amongst Jordanians, in particular, young female graduates (Caputo, Lombardi, Akeel, Almallah, Dakkak and Qubbaj, 2016). In order to overcome the barriers to female entrepreneurship, the Jordanian Government can also take certain measures. For example, the government could enact public policies that addresses these issues and encourages female entrepreneurial activity as a means of fostering economic and social development. Within this framework, the private sector and various government agencies need to be mobilized to create a new generation of entrepreneurially minded youth, with access to finance, support networks, and business incentives. In particular, they need to harness the potential of underutilized and highly educated females. In order to do this, entrepreneurship education needs to be introduced at the high school level.

While the entrepreneurial gender gap is a global phenomenon, it must be realized that female entrepreneurs are vital for economic diversification and should no longer take a second seat to their male counterparts. The potential for female-owned firms to become an engine of growth and a tool for women's empowerment is great – but only if policymakers tackle the barriers, address social norms about working women, and correct the stigma associated with women running their own businesses. The education system needs to instill Jordanian females with a sense of self-motivation and confidence and create a mindset that says “I can do it.” This has to be supported with a strong entrepreneurial ecosystem and by practical skills that truly reflect the needs of the marketplace. Only then will entrepreneurship be the way forward among youth and in particular, young females in Jordan.

Some research limitations must be acknowledged. First, the sample was comprised of female students from only two universities in Jordan and this limits the generalizability of the results. Future studies should concentrate on enlarging the sample to include female students from other universities in Amman and also other cities in Jordan. The entrepreneurial intentions of male students could also be examined and this would allow for a comparison between genders. Second, the sample was also limited to female students studying business. It would be interesting to investigate the entrepreneurial tendencies of students studying in other disciplines, particularly engineering, which is a very popular and prestigious field of study in Jordan for both males and females. Currently there is an over saturation of engineering graduates and the government has made repeated calls to high school students to avoid studying this discipline. Therefore, it is also important to understand if engineers are equipped with the right skills to create business start-ups, instead of relying on the public and private sectors for employment.

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