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Exploring entrepreneurial motivations among Saudi female business undergraduates

Saudi female
business
undergraduates

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Abstract

Purpose – This study seeks to develop a clearer understanding of the motivational factors affecting Saudi female business undergraduates' choice of pursuing entrepreneurship.

Design/methodology/approach – The research adopts a quantitative approach to gain general understanding of the students' perceptions with regard to their motivations to pursue entrepreneurship. Data were collected through a structured questionnaire survey administered to 214 female business undergraduates at Prince Mohammad Bin Fahd University (PMU) in Al-Khobar, to investigate their perceptions of entrepreneurial motivations. Descriptive statistics and factor analysis were used to identify the motivational factors. Multiple regression analysis was used to reveal relationships between the motivation factors and entrepreneurial motivation of female business undergraduates.

Findings – The study revealed four generalised entrepreneurial motivations among Saudi female business undergraduates: personal motivational factors with an emphasis on freedom and social status; business motivational factors such as financial rewards and security; social motivational factors manifested in the influence of the community, roles and family; and environmental motivations which were mainly associated to education, the market knowledge and ability to access finance.

Research limitations/implications – The study was restricted to female students at PMU University. Thus, generalisation of the results could be limited. The findings of the study could be useful to relevant authorities to enhance and boost entrepreneurship for female students and hence to contribute to the national Vision 2030.

Originality/value – This study is among those few studies located in the MENA region that explore Saudi female university students' attitude towards entrepreneurship. It adds to the authors' understanding on the four generalised factors by highlighting the importance of the family's role and entrepreneurship education in motivating Saudi female students towards entrepreneurship engagement. It also contributes to the understanding of these motivations that could be applied in other similar contexts.

Keywords Entrepreneurship, Saudi Arabia, Universities, Female business undergraduates, Motivational factors

Paper type Research paper

Introduction

The importance of entrepreneurship in the national economic and social development of both developed and developing country has been widely recognised (Herman, 2019; Omoruyi *et al.*, 2017; Ayandibu and Houghton, 2017; Acs *et al.*, 2017; European Commission, 2013; GEM, 2016). In the Kingdom of Saudi Arabia (KSA), with the Vision 2030, *an ambitious plan to diversify its economy and shift its heavy dependence from an oil-based economy to other promising economic sectors*; entrepreneurship has emerged among the key drivers to help the country's aspiration in achieving the vision's goals and to overcome the daunting challenges (e.g. booming of the young population and increase in the unemployment rate among others) (Aloulou, 2016a, b; Al-Kibsi *et al.*, 2015; Saudi Council of Economic and Development Affairs, 2016). According to Aloulou (2015), promoting entrepreneurship culture in Saudi Arabia is becoming a "new" challenge for the country, and its implementation at all educational levels,



even earlier levels, is vital. In relation to women in the KSA, researchers have noted that “The massive underemployment, as well as unemployment, has represented a large-scale waste of human capital” (Abou-Moghli and Al-Abdallah, 2019, p. 2). The particular situation of women in Saudi Arabia has been addressed by various government programmes, but difficulties still remain.

Elnadi and Gheith (2021) suggested that entrepreneurship stimulation among Saudi students might need to differ between males and females, as gender had a “critical moderating effect” in their study (p. 12). In their view, policy makers should pay particular attention to gender differences. Aljarodi *et al.* (2022), taking an institutional economics view, noted the lack of data concerning Middle Eastern and especially Saudi female entrepreneurs as a limitation on their study. Al-Kwafi *et al.* (2020) found three factors affecting female Saudi entrepreneurs were significant in their study: support structures from the government of KSA, knowledge for business start-up and financial support. They determined two factors, perhaps somewhat surprisingly, not to be of significance: operating risk and social support. In a systematic review of the field considering 22 studies, Abou-Moghli and Al-Abdallah (2019) had found financial, social and cultural constraints to be the major challenges facing women entrepreneurs in Saudi Arabia. They observed that “The study concludes that women need better education and support system for facilitating success in ventures” (p 12). Of the 22 studies, 11 were exploratory, two narrative and six cross-sectional, with two further systematic reviews.

The Saudi government has shown great interest in promoting entrepreneurship and providing the adult population with better opportunities. According to the GEM report (2019), over three-quarters of the adult population in Saudi Arabia had been provided with lucrative and favourable opportunities to start a new venture. Moreover, under its Vision 2030 blueprint, the Saudi government is committed to further enhancing the entrepreneurial ecosystem and supporting SMEs by raising their contribution to GDP from 20% to 35% by 2030 (Ashri, 2019).

In view of its increasing and evident importance, in recent years, researchers and policy makers alike have shown increased interest in female entrepreneurship as a growing segment in the context of developing countries that has the potential to become a driving force for economic development (Vodă and Florea, 2019; Minniti and Naudé, 2010). This tendency sees no exception in Saudi Arabia and increasing the number of Saudi female entrepreneurs has become a government priority (Fallatah, 2012). The Saudi government understands the necessity of women’s inclusion in entrepreneurship (Malek, 2018) in order to contribute to the country’s economy while still working within societal restrictions (Welsh *et al.*, 2014; Zeffane, 2013; Cole, 2011; Sabri, 2001). Specifically, factors affecting entrepreneurial intentions among university female students have become the subject of analysis. Despite that analysis, few studies have been published on the *motivational* factors for students to be entrepreneurs, focused on the Arab world (Caputo *et al.*, 2016; De Vita *et al.*, 2014; Welsh *et al.*, 2014). The majority of the related studies in Arab countries remain narrow in focus dealing mostly with entrepreneurial characteristics and the challenges faced (Caputo *et al.*, 2016; Welsh *et al.*, 2014; Goby and Eroglu, 2011; Hattab, 2012; Itani *et al.*, 2011; Jamali, 2009). Furthermore, these studies remain largely descriptive (e.g. Danish and Smith, 2012), conceptual (e.g. Brush *et al.*, 2009), or preliminary empirical research (e.g. Almobaireek and Manolova, 2013; Jamali, 2009; Sadi and Al-Dubaisi, 2008, 2010). Krueger (2007) argued that there is a paucity of research focussing on the factors that encourage or inhibit entrepreneurial intentions among females. Alshagawi (2019) further expounded that little is known about female entrepreneurship; this could be explained by the family and societal norms and traditions of the Arab society (Sidani, 2005). Although the Saudi government has recently launched several programmes to encourage women’s engagement in entrepreneurial spheres (Basaffar *et al.*, 2018), only a limited number of women have taken advantages of these programmes. Alferaih (2022)

further argued that generally despite that three-quarter of adults in Saudi Arabia have perceived good opportunities to start new businesses; the country has recently experienced poor entrepreneurial growth. This indicates the importance to examine the specific factors that encourage female entrepreneurship.

The current study seeks to address the gap in research concerning female's entrepreneurship in Saudi Arabia by examining the *motivational* factors for female students to pursue entrepreneurship. It aims to develop a clearer understanding of the factors that influence female business undergraduates at Prince Mohammad Bin Fahd University in Al-Khobar to pursue entrepreneurship. To achieve this aim, the following objective was pursued:

- (1) To investigate opinions of female business undergraduates about factors influencing their entrepreneurial motivation.
- (2) To explore the relationship between the motivation factors and entrepreneurial motivation of female business undergraduates.

The contribution of the research is two-fold: First, it is hoped that this research will contribute to the growing body of research about female entrepreneurship and deepen our understanding about the factors that motivate female entrepreneurship, in a context that is experiencing many changes and accomplishments with regard to female inclusion and empowerment. Second, understanding factors that shape entrepreneurial motivations among female university students can help the government to advance women's economic participation and thus to facilitate the empowerment of Saudi Arabian women which is at the heart of the Kingdom's Vision 2030.

Literature review

Entrepreneurial motivations have been of interest to researchers from a very early stage: at least since the work of the economist [Schumpeter \(1934\)](#), and therefore has been the subject of a great deal of analysis. In developed countries, a considerable amount of literature has been published on female's motivations to pursue entrepreneurship as a career. However, in developing countries, the related existing literature is scarce and it is only in the past recent years that studies directly addressing this topic have emerged. Whilst the stream of literature in both developed and developing countries suggests a wide range of motivational factors, the identified factors remain complex and erratic since there is no general agreement and considerable uncertainty and lack of consensus exist among researchers in relation to them ([Harima, 2015](#); [Orhan and Scott, 2001](#)).

In general, the literature highlights that motivational factors towards entrepreneurship can be classified into two categories: "push" versus "pull" factors ([Eijdenberg and Masurel, 2013](#); [Carsrud and Brännback, 2011](#)). Adopting the drive theory, the "push" factors represent those negative motivations that push individuals to entrepreneurial undertaking, whereas the "pull" factors adopts the incentive theory and exhibit those positive motivations that drive individuals to engage in entrepreneurship and initiate their own ventures. Several studies have further explained that the concept behind these entrepreneurial intentions relates mainly to cognitive emotions ([Stephan et al., 2015](#); [Nel et al., 2010](#); [Kirkwood, 2009](#)). For "pull" factors, where positive connotations exist, the focus lies on the outcomes of entrepreneurship, such as: greater control of the individual's own time, greater flexibility in personal and family life and freedom to adopt their own approach to work ([Stephan et al., 2015](#); [Nel et al., 2010](#)). According to [Naser et al. \(2009\)](#), based on the pull-factor framework, women's entrepreneurship decision results from the need for accomplishment and power. On the other hand, "push" factors relate to negative connotations such as inability to find a job, dissatisfaction with the current job and underpaid

work (Stephan *et al.*, 2015; Kirkwood, 2009). Naser *et al.* (2009) argued that women are pushed into entrepreneurship by lack of prospects, reduction in revenue, underemployment, unemployment and unsatisfying working conditions.

A number of studies have focus on entrepreneurial motivations among students and therefore have sought to understand their motivations towards entrepreneurship. The majority of these studies suggest that students are inclined towards entrepreneurship by personal motives such the need for independence, the desire for financial rewards, and social status and recognition (Islam *et al.*, 2018; Azmi, 2017). For example, Azmi (2017) found the goal of social status and recognition, manifested in the desire of the individual to be their own boss, to highly motivate university female students in Ethiopia for starting a business. Furthermore, in their explorative empirical study, Islam *et al.* (2018) investigated factors inspiring female university students in Saudi Arabia to choose entrepreneurship as their career choice and found financial returns, social status and recognition to be positively related to entrepreneurial motivation. Other studies have argued that students could be driven towards entrepreneurship by the desire to contribute to the national economy. In their study about the social influences on the entrepreneurial aspirations of higher education students in Botswana, Rametse and Huq (2015) observed that female students were motivated by their desire to contribute to the national economy and to do business. They further argued that the lower the development level of a country, the more its students are willing to start their own businesses.

The influence of role models on entrepreneurial intentions among students has been highlighted in the entrepreneurship literature (Auken and Stephens, 2006; Auken *et al.*, 2006; Bosma *et al.*, 2012; Karimi *et al.*, 2014; Scherer *et al.*, 1989). However, it should be noted that despite these studies acknowledge the significance of entrepreneurial role models, there is insufficient understanding of the effect of role models on entrepreneurship, and the relevant literature is rather fragmented (Bosma *et al.*, 2012; Van Auken *et al.*, 2006). Previous research has established that role models influence individuals to discover and learn specific skills and gain the knowledge required to be an entrepreneur (Scherer *et al.*, 1989; Scott and Twomey, 1988; Lent *et al.*, 1994; Bosma *et al.*, 2012). Granovetter (1973) distinguished between two functions of entrepreneurial role models: (1) generating information and knowledge (weak tie networks); or (2) providing practical support (strong tie networks). Several studies confirm a positive relationship between parental role models and entrepreneurship (Rametse and Huq, 2015; Amentie and Negash, 2015; Chlosta *et al.*, 2010; Scherer *et al.*, 1989). For example, Scherer *et al.* (1989) reported that 35–65% of entrepreneurs had one or more entrepreneurial parents. Other studies suggested that students could be influenced to pursue an entrepreneurship career by successful friends or peers in an entrepreneurial role (Abbasiachavari and Moritz, 2021; Bosma *et al.*, 2012; Falck *et al.*, 2010). In addition, successful entrepreneurs, when considered as role models, could have an influential role in motivating students to adopt entrepreneurship as a career choice (Amentie and Negash, 2015; Bygrave, 2004). Similarly, a positive association between subjective norm and entrepreneurial intention indicates that guest lectures, tutorials, master classes and workshops run by successful entrepreneurs would give students a positive image of business creation and that such motivational role models would boost their confidence (Karimi *et al.*, 2014). Collectively, these studies argue that role models can encourage individuals to become an entrepreneur by providing some necessary business information, knowledge and networks as well as some moral support (Postigo *et al.*, 2006; Hisrich *et al.*, 2005). It should be noted that besides the pursuit of an entrepreneurial family, friends or entrepreneurs tradition, the role models dimension might also emphasise the creation of a family legacy (Ahmar Uddin *et al.*, 2016; Stephan *et al.*, 2015; Rametse and Huq, 2015; Rae, 2007).

The role of entrepreneurship education in enhancing entrepreneurial behaviour among students has been highlighted in the literature. Several authors have argued that teaching

business simulations and data analytics would help students to better understand real-world scenarios and learn about the difficulties and complexities of setting up small businesses (Costin *et al.*, 2019; Gieure *et al.*, 2019; Pawar and Palivela, 2022). In their research about students' attitudes towards entrepreneurship at Princess Sumaya University for Technology in Jordan, Abualbasal and Badran (2019) noted that entrepreneurial education has a positive impact on the students' immediate entrepreneurial intentions. In the same vein, Abebe (2015) found that entrepreneurial education has a significant role in motivating Ethiopian students towards entrepreneurship. Similarly, in their study that surveyed 173 female students *et al.* Jof university, Almawishir and Messen (2021) found that entrepreneurship education significantly influenced the female potential entrepreneurs, as all factors were significantly related to entrepreneurial intention. Furthermore, they expounded that their entrepreneurial intention was most influenced by entrepreneurial skills and least influenced by the mindset. As argued by Henderson and Robertson (2000), entrepreneurship courses can offer entrepreneurial insight for students to influence their choice of entrepreneurship as a career. In support of this argument, Chrisman *et al.* (2012) found that whilst entrepreneurship courses do not have an impact on ventures' performance, they, however, affect their creation. For example, teaching business simulations and data analytics would help students to better understand real-world scenarios and learn about the difficulties and complexities of setting up small businesses (Costin *et al.*, 2019; Gieure *et al.*, 2019; Pawar and Palivela, 2022). In sum, the findings of these studies clearly stress the importance of entrepreneurship education, despite being theoretical, in encouraging students to choose an entrepreneurial career. However, whilst these results would seem to suggest that entrepreneurship courses could play a remarkable role in motivating and inspiring students to initiate their businesses, they may not be deemed helpful throughout the later phases of the entrepreneurial process. As the world has been transforming to the digital era, the concept of the modern entrepreneurship courses on how to do smart businesses using digital technologies and diffuse the business outreach to the intended customers swiftly, motivate the prospective entrepreneurs toward starting their new ventures. Numerous studies have attempted to explain the role of digital entrepreneurship as a key to economic survival and a lantern of jobs in developing countries (Abaddi and AL-Shboul, 2023; Alferaih, 2022).

The impact of the rapidly changing environment on entrepreneurial intentions among students has been highlighted in the entrepreneurship literature. Nematoolah *et al.* (2012) stated that environmental factors play an important role in weakening or strengthening people's intentions to create a new venture. The existing literature on the impact of the environment is extensive and focuses particularly on access to finance and satisfactory government support as critical factors to be considered as having a positive impact on entrepreneurship motivation for both students and budding entrepreneurs (Al Matroushi *et al.*, 2018; Islam *et al.*, 2018; Shah, 2013; Staniewski and Szopiński, 2013; Naser *et al.*, 2009). For example, Naser *et al.* (2009) found that financial support from the government, especially in terms of start-up capital, was an important factor that influenced females from the United Arab Emirates (UAE) in launching their own businesses. Furthermore, in another study about Emirati Female entrepreneurs, Al Matroushi *et al.* (2018) revealed that raising and managing internal and external finances were seen as a barrier women face that would prevent them from starting an innovative business. For the government support, in their explorative empirical study, Islam *et al.* (2018) found that government assistance had great impact in creating a strong passion towards entrepreneurship for Saudi female university students. It should be noted that the challenge of securing funding for students exploring the prospect of self-employment can prove to be a prohibiting factor towards entrepreneurship. This is evident, as many of these students will lack a history or track record in business, causing their credibility to be questioned, and thus financial institutions and venture capitalists alike would be reluctant to provide financial funds.

Research methodology

This research was conducted among Saudi female business undergraduates at Prince Mohammad Bin Fahd University in the city of Al-Khobar to develop a clearer understanding of the motivational factors affecting their choice of pursuing entrepreneurship. To achieve this aim, this study follows the tradition used in entrepreneurship research (Curran and Blackburn, 2001; Grant and Perren, 2002; Ahl, 2003; Lewis *et al.*, 2007), by adopting a quantitative approach to gain general understanding of the students' perceptions with regard to their motivations to pursue entrepreneurship.

Questionnaire design

A self-designed questionnaire was constructed based on a review of the literature and an analysis of previously used and tested instruments (see Appendix 1). A covering letter was attached to the questionnaire to explain the purpose and importance of the study, as well as to give instructions on how to complete the questionnaire. Using a 5-point Likert scale for each item, other than demographics, the questionnaire consisted of three sections relating to the following issues: students' demographical information, entrepreneurial motivations for students to start up a new business; and obstacles deterring entrepreneurial motivations.

To confirm its utility, a pre-test of the questionnaire was conducted in the form of a focus group that comprised four university students and two academic experts at PMU University. Their feedback in general confirmed the questionnaire's usefulness and that the format was deemed appropriate. Language levels were of significance and needed to be well understood, as the survey was conducted in both English and Arabic. Equivalence between the versions of the instrument was confirmed using the back-to-back translation approach.

Sampling and data collection

The population of this study was female undergraduates from the college of business administration, which consisted of 1,252 female students according to PMU website. Following the questionnaire's pre-test stage, and using a judgmental sampling, 214 female business undergraduates were selected based on their year of study and major. These two factors were used to avoid structural bias in the construction of what was a small selection. The survey questionnaire was distributed during class lectures to the sample of 214 final year female business undergraduates, enrolled in different majors with the Business Administration College. The reason for choosing final year students is that they were facing important career decisions on completion of their studies and were deemed to better understand their future careers and interests; hence, they are able to set their vocational goals accordingly (Super, 1990; Ooi, 2008). Using a single setting for data generation naturally restricts classical generalisability, but the source data seems to be consistent with studies from Saudi female students elsewhere.

The survey was conducted in semesters 1 and 2 of the academic year 2021/2022. A total number of 153 students filled in the questionnaire, resulting in a 71.49% response rate. Attention to response from early and late respondents showed no significant differences, nor could differences be systematically determined between respondents and non-respondents.

Results and analysis

The raw data collected through the questionnaires was processed by using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics, in the form of frequency analysis, were used to get a broad appreciation of the data collected (see Table 1). The percentages relate to the respondents who indicated selection of the item as a motivational factor (upper two points on the scale).

| Motivational factors | Frequency (%) | Saudi female business undergraduates |
|--|---------------|--------------------------------------|
| <i>Freedom</i> | | |
| To have more free time | 76% | |
| Have more flexibility and independence | 74% | |
| Have a non-stressful and simple job | 56% | |
| To be their own boss | 71% | |
| <i>Recognition and Status</i> | | |
| Gain high social status | 67.7% | |
| <i>Family and Roles</i> | | |
| Parents or close family are entrepreneurs | 54.83% | |
| The example of close friends | 15.40% | |
| To create a business with the intention of passing it down to their children | 58.1% | |
| <i>Income Security and Financial Success</i> | | |
| To gain financial rewards | 93.54% | |
| Earn lots of money | 81% | |
| Have job security environment | 38.7% | |
| <i>Finance and Market Knowledge</i> | | |
| Access to finance | 73.19% | |
| Market knowledge | 76% | |
| Lack of innovative ideas | 83% | |
| <i>Community and Education</i> | | |
| To make a positive contribution to the community | 90.32% | |
| To help in solving a social problem | 87.25% | |
| Encouraged by university entrepreneurship programmes | 89% | |
| Source(s): Data analysis | | |

Table 1.
Frequency analysis

It can be noted from these findings that various factors motivate female students to embark on an entrepreneurial journey and potentially start their own ventures. The main themes regarding motives noted from the participants' responses are: Freedom, recognition and status, family and roles, income security and financial success, community and social motivations, finance and market knowledge. Each of the themes is explained below:

Freedom. The theme of Freedom emerged as an important personal motivational factor for pursuing entrepreneurship. This was perceived and expressed by respondents in different ways. For some respondents, freedom was related to being able to be independent from others. This was apparent in the responses of nearly three-quarters of participants who expressed their desire to be their own boss (71%), to have more flexibility and to work without others having authority over them (74%). Other respondents stressed the importance of freedom by being able to manage and control their own time. Over three-quarters of respondents (76%) stressed that they were keen to start their own business because they wanted to have more free time. Furthermore, over half of respondents (56%) reported the desire to have a non-stressful and simple job.

Recognition and status. Recognition and status represents a form of motivation that relates to social status. It encompasses the desire to gain recognition and respect as an entrepreneur from the society. More than two-thirds of the participants (67.7%) indicated that their choice of pursuing entrepreneurship is fuelled by the desire to gain a high social recognised status and enhanced respect in the community.

Family and role models. From the responses of the students, it is clear that more than half of the participants (54.83%) came from families where parents or close family were

entrepreneurs. Others, representing a minority (15.4%) were keen to follow the example of close friends, whereas over a quarter (29.77%) stated that they had no real-life entrepreneurial role model to follow. This finding suggests that role models, when available, represent an important factor in encouraging entrepreneurial behaviour. The role model provides the potential entrepreneur with the aspiration to follow the same career choice and additionally, provides support during start-up. Furthermore, a variety of perspectives were expressed by respondents in relation to the creation of a family legacy. Over half of respondents (58.1%) expressed their willingness to create a business with the intention of passing it down to their children, while nearly one-third of participants (29.03%) did not have any intention for the family legacy. Moreover, a minority of respondents (12.87%) had a neutral response.

Income security and financial success. It is apparent from the data that the strong desire to gain financial rewards is a key motivational factor in business creation for students. The majority of respondents (93.54%) indicated a strong desire to gain financial rewards from starting their own venture. The desire was apparent in the participants' wishes to earn more money and accumulate wealth. However, a minority of respondents expressed their need for financial security. It is worthwhile to mention here that [Stephan et al. \(2015\)](#) argued that monetary rewards constitute a motivation regardless of the reason for the drive for security (necessity-based), or towards successful accumulation of wealth (opportunity-based).

Community and education. The desire to contribute back to the community appears to be significant to female students. The majority of students revealed their desire to make a positive contribution to the community (90.32%) and help in solving social problems (87.25%). Furthermore, the role of university entrepreneurship education was found to be significant in motivating students towards entrepreneurship with the majority of respondents (89%) expressing and stressing this importance.

Finance and market knowledge. Access to finance is a key motivational factor in taking the challenge to create a business. Considering the related responses of students, it is apparent that finance represents a key obstacle that challenges their intentions towards entrepreneurship. Over three-quarters of respondents (73.19%) stressed that insufficient access to or lack of finance had a significant impact on their intention to start a business. Furthermore, a lack of market knowledge and the need to find innovative ideas were viewed by over three-quarters of participants as constraints on entrepreneurial decisions to start a business. 76% of students pointed out that a lack of market knowledge constrained their intentions to start their ventures. Furthermore, 83% of students stressed that searching for innovative ideas represented a challenge that inhibited entrepreneurial behaviour. These results suggest a close relationship between market knowledge and innovative ideas, in that researching the market and finding the right information helps in being creative and innovative.

Using a five-point Likert scale, 17 questions were used to obtain data for the motivational factors. [Table 2](#) presents the mean scores with standard deviations results obtained from female university students. From the descriptive statistics shown in [Table 2](#), findings showed that the main themes regarding motives were widely considered by participants to have a pivotal impact on the students' decisions with regards to entrepreneurship pursuit. Female students viewed the motivational factors of: freedom, recognition and status, family and roles, income security and financial success, finance and market knowledge, and community and education as very important factors in influencing their intentions towards entrepreneurship with mean scores of 4.31, 4, 4.05, 4.05, 3.53 and 4.08 respectively.

Factor analysis

To explore underlying patterns of relationships between the entrepreneurial motivations for students, an exploratory principal component analysis (PCA) was conducted on the 17 items

| Motivational factors | N | M | SD | Saudi female business undergraduates |
|--|-----|------|------|--|
| <i>Freedom</i> | | 4.31 | 0.28 | |
| To have more free time | 153 | 4.84 | 0.16 | |
| Have more flexibility and independence | 153 | 4.15 | 0.32 | |
| Have a non-stressful and simple job | 153 | 4.18 | 0.25 | |
| To be their own boss | 153 | 4.05 | 0.38 | |
| <i>Recognition and Status</i> | | 4 | 0.27 | |
| Gain high social status | 153 | 4.00 | 0.27 | |
| <i>Family and Roles</i> | | 4.05 | 0.64 | |
| Parents or close family are entrepreneurs | 153 | 4.04 | 0.69 | |
| the example of close friends | 153 | 4.07 | 0.72 | |
| to create a business with the intention of passing it down to their children | 153 | 4.03 | 0.52 | |
| <i>Income Security and Financial Success</i> | | 4.05 | 0.54 | |
| To gain financial rewards | 153 | 4.00 | 0.61 | |
| Earn lots of money | 153 | 4.10 | 0.65 | |
| Have job security environment | 153 | 4.06 | 0.35 | |
| <i>Finance and Market Knowledge</i> | | 3.53 | 0.66 | |
| Access to finance | 153 | 3.5 | 0.63 | |
| Market knowledge | 153 | 3.6 | 0.65 | |
| Lack of innovative ideas | 153 | 3.5 | 0.71 | |
| <i>Community and Education</i> | | 4.08 | 0.39 | |
| To make a positive contribution to the community | 153 | 4.05 | 0.47 | |
| To help in solving a social problem | 153 | 4.06 | 0.42 | |
| Encouraged by university entrepreneurship programmes | 153 | 4.15 | 0.25 | |

Source(s): Data analysis

Table 2.
Mean scores and
standard deviation

relating to entrepreneurial motivation. PCA requires little in the way of supervision and has relaxed data requirements - "PCA as a descriptive tool needs no distributional assumptions and, as such, is very much an adaptive exploratory method which can be used on numerical data of various types" (Jolliffe and Cadima, 2016). Table 3 shows the rotated component matrix using the principal component method and varimax rotation with 4 main motivations specified and significant factor loadings emphasised. These factors had eigenvalues over Kaiser's criterion of 1 and in combination account for 72.59% of the total variance. To ensure data adequacy, the correlation matrix of the variables involved was submitted to various tests as shown in Table 4. The Kaiser-Meyer-Olkin (KMO) statistic was 0.718, a value above the acceptable limit of 0.50 recommended by Kaiser (1974). Furthermore, Bartlett's test of sphericity was statistically significant at the $p < 0.05$ level, suggesting large correlations between items for PCA. These results show that the sample can be subjected to PCA in order to uncover the underlying patterns of the entrepreneurial motivations variables.

Personal motivations

The results of factor analysis showed that six personal factors related items have a factor loading above 0.6. Specifically, this component was highly saturated with the items "To have spare time", "Have a simple job", "Being your own boss", "Being autonomous in your work", "Do not have a stressful job" and "Achieve a recognised social status" presenting saturations of over 0.7, which may be connected with the personal motivation of the need for independence and self-actualization. Thus, these related items were grouped as one component called **Personal Motivations**. Substantial and statistically significant component loadings confirm the existence of convergence validity with the recommended

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| Factors | Factor loadings | Cronbach's α |
|---|-----------------|---------------------|
| <i>F1 = Personal Factors</i> | | |
| 1. To have spare time | 0.88 | 0.74 |
| 2. Have a simple job | 0.81 | |
| 3. Do not have a stressful job | 0.73 | |
| 4. Being your own boss | 0.65 | |
| 5. Being autonomous in your work | 0.64 | |
| 6. Achieve a recognised social status | 0.68 | |
| <i>F2 = Business Factors</i> | | |
| 7. Have a fixed income | 0.78 | 0.73 |
| 8. Earn lots of money | 0.72 | |
| 9. Have job security | 0.71 | |
| <i>F3 = Social Factors</i> | | |
| 10. Positive contribution to the community | 0.79 | 0.68 |
| 11. To build a business that children can inherit | 0.72 | |
| 12. Encouraged by an entrepreneurial role model (Father/Mother/Other family members or friends) | 0.71 | |
| 13. To help in solving a social problem | 0.65 | |
| <i>F4 = Environmental Factors</i> | | |
| 14. Encouraged by university entrepreneurship programmes | 0.71 | 0.67 |
| 15. Encouraged by government | 0.64 | |
| 16. Access to finance | 0.62 | |
| 17. Market knowledge | 0.61 | |

Table 3.
Rotated component matrix

| | |
|---|---------|
| Kaiser–Meyer–Olkin measure of sampling adequacy | 0.718 |
| <i>Bartlett's test of sphericity</i> | |
| Approx. Chi-square | 409.767 |
| Df | 35 |
| Sig | 0.000 |

Table 4.
KMO and Bartlett's test

value of > 0.50 . Cronbach's value of 0.74 for the "Personal motivations" factor shows reliability of the construct.

Business motivations

The second component relates to three items: "Have a fixed income", "Earn lots of money" and "Have job security", with a significant loading above 0.6, which measured the business influences index. As these items seem to identify economic and financial aspects of the construct, they were, therefore, grouped as one component called **Business Motivations**. The convergence validity was confirmed as loadings of respective measured items were >0.50 . Cronbach's value of 0.73 for the "business motivations" factor shows reliability of the construct.

Social motivations

The third component focuses on four items "Positive contribution to the community", "To build a business that children can inherit", "Encouraged by an entrepreneurial role model", and "To help in solving a social problem", with significant statistical loading of 0.79, 0.72, 0.71 and 0.65 respectively. These related items seem to depict social influences of the construct such as: the influence of role

models, social contribution to the community and the family legacy. Therefore, they were grouped as one component called **Social Motivations**. Substantial and statistically significant loadings confirm the existence of convergence validity with the recommended value of > 0.50. Cronbach's value of 0.68 for the "Social motivations" factor shows reliability of the construct.

Saudi female
business
undergraduates

Environmental motivations

The fourth and final component represents four items: "Encouraged by university entrepreneurship programmes", "Encouraged by government", "Access to finance" and "Market knowledge" with high saturations of 0.71, 0.64, 0.62 and 0.61 respectively. These items were grouped as **Environmental Motivations** as they relate to effect of the environment in motivating students to pursue entrepreneurship. The convergence validity was confirmed as loadings of respective measured items were >0.50. Cronbach's value of 0.67 confirms the reliability of the construct which shows that the items studied are internally consistent and each of the items is unique and not a repetition.

Regression analysis

In order to see the potentially causal link between the motivation components and entrepreneurial motivation of female business undergraduates, a linear regression model was performed (Table 5). The following equation was used:

$$Y (\text{Entrepreneurial motivation}) = B0 + B1 (PM) + B2(BM) + B3(SM) + B4(EM)$$

where PM is the personal motivation; BM the business motivation; SM the Social motivation; and EM the environmental motivation.

Results of the analysis are shown in Table 5.

Findings of the study revealed that all the factors of motivation are positively and significantly related with entrepreneurial motivation. This is consistent with a range of other studies (Pawar and Palivela, 2022; Almagwishir and Messen, 2021; Al Matroushi *et al.*, 2018; Islam *et al.*, 2018), but not the recent study of Al-Kwafi *et al.* (2020) in Saudi Arabia.

Discussion

The present study was designed to understand the motivational factors affecting female students' choice of pursuing entrepreneurship. Whilst the majority of participants considered

| Factors | Beta T | T-Ratio | Sig. T |
|-----------------------|--------|---------|--------|
| Personal Factors | 0.436 | 4.562 | 0.01 |
| Business Factors | 0.475 | 4.96 | 0.02 |
| Social Factors | 0.569 | 5.478 | 0.01 |
| Environmental Factors | 0.523 | 5.023 | 0.01 |

$R^2 = 0.614$

Durbin-Watson = 1.653

$F = 19.256$

Sig. $F = 0.000$

Condition Index = 27.546

Source(s): Data analysis

Table 5.
Regression analysis

entrepreneurship to be a favourable career choice and thus revealed a number of motivational factors, it can be argued that the circumstances under which an individual becomes an entrepreneur differ from one person to the other. Revealed motivational factors in this research can be categorised into four main themes: personal, business, social and environmental motivations.

As far as the personal motives concerned, findings revealed that most of the participants in this research study are “pulled” into creating their future ventures by the desire to have freedom in their life which can be explained through independence and autonomy. These results corroborate the findings of a great deal of the previous work in Stephan *et al.* (2017) and Aziz *et al.*, 2013. Furthermore, findings of this study are in agreement with those of Islam *et al.* (2018) which showed that female university students in Saudi Arabia are deemed to pursue entrepreneurship as a vital career in order to gain a recognised social status.

The study also highlights the role of social motivations for pursuing entrepreneurship. Consistent with the results of several authors (Ahmar Uddin *et al.*, 2016; Stephan *et al.*, 2015), the study suggests that entrepreneurial motivations could relate to continuing an entrepreneurial tradition within the family or creating a family legacy within a community. Furthermore, in accordance with various published studies (e.g. Galvão *et al.*, 2018; Gieure *et al.*, 2019), this study confirms the significance of role models in encouraging individuals to become entrepreneurs. It could be argued that this is evident in collectivist societies such as Saudi Arabia, where people feel strong attachment to role models (family, colleagues, friends, etc.). Whilst this finding is important, it does not explain in depth the effect of role models on entrepreneurship. Further research should be undertaken to investigate the effect of exposure to role models on entrepreneurial motivation and behaviour and how this effect depends on the type of role models, time and context to which exposure has occurred.

For the business motivational factors, the study found that the desire to gain financial reward and income security was a common motivational factor for participants to engage in entrepreneurial activities. This affirms the findings of Stephan *et al.* (2015) who argued that financial rewards represent a motivation regardless of the reason for security (necessity) or for successful wealth (opportunity). The study also supports the findings of Almobaireek and Manolova (2013) who found that financial success motivation was a very important reason for female Saudi youth to engage in entrepreneurship initiatives.

This study supports evidence from previous observations (e.g. Al Matroushi *et al.*, 2018; Islam *et al.*, 2018; Nematollah *et al.*, 2012) about the role of environmental factors in weakening or strengthening people’s motivation to create a new venture. The study found that institutional and governmental guidance and support appear to be conducive to fostering entrepreneurial behaviour among students. This supports the study of Islam *et al.* (2018) about factors inspiring female university students in Saudi Arabia to choose entrepreneurship as their career choice. Their study found that government assistance had great impact in creating a strong passion among students towards entrepreneurship. In addition to this, findings further revealed that the ability to access finance was a key motive influencing female students’ to pursue entrepreneurship. This finding is consistent with that of Naser *et al.* (2009) who found that financial support from the government, especially in terms of start-up capital, was an important factor that influenced females in the United Arab Emirates (UAE) in launching their own businesses. It also supports the findings of Al Matroushi *et al.*, 2018 who revealed that raising and managing internal and external finances were seen as a constraint for female entrepreneurship in the UAE.

One of the more significant findings to emerge from this study, in relation to the environment motivational factors, is the significance of the entrepreneurship university programmes. This highlights the role of the entrepreneurship education in motivating Saudi female students towards entrepreneurship. It could be argued that entrepreneurship education can make a person’s perception of starting a new business more favourable and thus female students could be more ambitious about pursuing entrepreneurship if formal

courses on entrepreneurship have been offered to them. The finding broadly supports the work of other studies in this area linking entrepreneurship education with the motivation to pursue entrepreneurship (Costin *et al.*, 2019; Gieure *et al.*, 2019; Pawar and Palivela, 2022). Specifically, the result reflects those observations of Almajidi and Messen (2021), Abualbasal and Badran (2019), who noted that entrepreneurial education has a positive impact in motivating university female students towards entrepreneurship. However, it differs from other studies that reported insignificant or even negative effects of entrepreneurship education (e.g. Oosterbeek *et al.*, 2010; von Graevenitz *et al.*, 2010). Thus, the current study could suggest that ensuring appropriate entrepreneurial education programmes should be a priority for policy makers to advance women's entrepreneurial participation and thus to facilitate the empowerment of Saudi Arabian women which is at the heart of the Kingdom's Vision 2030. Linking role models with entrepreneurship education, it could be argued that the integration of role models in entrepreneurial education programmes could foster entrepreneurial intentions and behaviour. Whilst this not the subject of this research, the effects of integrating role models and entrepreneurship education on entrepreneurial intentions and behaviour in Arab contexts could be explored further in future research.

Conclusion

Motivational factors for pursuing entrepreneurship have been highlighted in several studies. Collectively, these studies outline the importance of different entrepreneurial motivations for female students. However, even though the findings of these studies are interesting, the present research adds to our understanding about the motivational elements for Saudi female higher education students to pursue entrepreneurship by shedding light on the influence of the cultural, social, contextual and environmental components that play a key role in motivating female students in pursuing entrepreneurship. The key contribution of the paper has been to confirm the importance of the family's role and entrepreneurship education in motivating Saudi female students to start up business as a career choice. The family support, whether material, in the form of providing funds or moral in the form of role models, seems to be a significant influential factor for pursuing entrepreneurship. Furthermore, entrepreneurship education seems to be an important aspect in fostering entrepreneurial intentions among female university students that requires further research. The four components determined from amongst the items derived from prior studies present a novel framework to guide future research. The manner in which individual items cluster, and the components revealed, offer additional insight that is generally supportive of prior work in the area. It seems clear that further work is needed to both address our understanding of the particular context facing female Saudi students and the government in this arena.

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Further reading

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Appendix

Questionnaire: motivations of female students to be entrepreneurs in KSA

Saudi female
business
undergraduates

Dear students,

The following questionnaire was developed in order to research and understand your interest in entrepreneurship and examine your motivations to be entrepreneurs. The research will improve our understanding of motivations for starting a business by females in the KSA.

Please complete this questionnaire accurately and objectively. In the absence of an option that accurately reflects your views, please choose the answer that seems relevant, and add any comment or explanation that you deem useful to illustrate your answer.

All of the answers you provide in this questionnaire **WILL BE KEPT CONFIDENTIAL**. All information given will be used for the purpose of this research only.

The questionnaire should take **ABOUT 15 MINUTES** to complete.

The results of this research will be presented in articles, books, and conferences.

If you want a copy of the results of the study, please fill out your name and e-mail address in the last page of the questionnaire.

Please return the completed questionnaire **in hand or via email**.

Thank you very much for your cooperation.

SECTION 1: MOTIVATIONS

1. Please tick your level of agreement with the following:

(Please select the appropriate answer by ticking the appropriate box)

SA = Strongly agree; A = Agree; D = Disagree; SD = Strongly disagree; NO = No opinion

| STATEMENTS | | SA | A | D | SD | NO |
|------------|--|----|---|---|----|----|
| a | I want to become an entrepreneur | | | | | |
| b | I have a business idea | | | | | |
| c | I understand what it takes to start a business | | | | | |

2. Why would you start a business? (due to / in order to)

(Please select the appropriate answer by ticking the appropriate box)

SA = Strongly agree; A = Agree; D = Disagree; SD = Strongly disagree; NO = No opinion

| STATEMENTS | | SA | A | D | SD | NO |
|------------|---|----|---|---|----|----|
| a | Focus on a technology that interests me | | | | | |
| b | Satisfy a need in the market | | | | | |
| c | Solve a social problem | | | | | |
| d | Create something of my own | | | | | |
| e | Have more flexibility and dependence | | | | | |
| f | Have more free time | | | | | |
| g | Make more money | | | | | |
| h | Manage people | | | | | |
| i | Create jobs | | | | | |
| j | Follow a family tradition | | | | | |
| k | Gain high social status | | | | | |
| l | No job prospect | | | | | |
| m | Great market opportunity | | | | | |
| n | Badly needs money | | | | | |
| o | To build a business my children can inherit | | | | | |
| p | To follow the example of a person that I admire | | | | | |

Other reasons:

Saudi female
business
undergraduates



3. I would not start a business due to:

(Please select the appropriate answer by ticking the appropriate box)

SA = Strongly agree; A = Agree; D = Disagree; SD = Strongly disagree; NO = No opinion

| | STATEMENTS | SA | A | D | SD | NO |
|---|---|----|---|---|----|----|
| a | Lack of ideas regarding what business to start | | | | | |
| b | Lack of assistance available to assist business viability | | | | | |
| c | Excessive risk | | | | | |
| d | Difficulty in getting initial capital | | | | | |
| e | Lack of legal counseling | | | | | |
| f | Lack of knowledge of the market | | | | | |
| g | Lack of experience | | | | | |
| h | Current economic situation | | | | | |
| i | Lack of support from family | | | | | |
| j | Irregular income | | | | | |
| k | Fear of failure | | | | | |
| l | Doubt about personal abilities | | | | | |

Other reasons:

4. Rank your top choices for your future plans (1 being your first choice, 7 being your last choice)

- Start my own business
- Work for a small, medium business
- Work for a large business
- Work for the government
- Work for a non-profit organisation
- Pursue unpaid work (household responsibilities, Volunteering)
- Work in academia

Other (Please specify):

-
-
-

5. Please explain briefly what motivated you to pick your top choices

SECTION 2: DEMOGRAPHICAL INFORMATION

8. Your age:

- 18-24 25-45 > 45

9. Your gender:

- Male Female

10. Your educational stage?

- First year student Second year student Third year student Fourth year student
 Postgraduate student Other (Please specify):

11. Do you have any previous work experience?

- Yes No

11a. If yes, for how long did you work before you started up your current business?

- < 2 years 2-5 years Other (Please specify):

12. Does any of your parents own a business?

- Yes No

13. What is the educational level of your father?

- None Primary level Lower secondary level Upper secondary level
 University diploma Bachelor degree Master degree PhD degree
 Other (Please specify):

14. What is the educational level of your mother?

- None Primary level Lower secondary level Upper secondary level
 University diploma Bachelor degree Master degree PhD degree
 Other (Please specify):

SUGGESTIONS & COMMENTS

Please type any suggestions or comments you want to add regarding the topics that have been addressed in this questionnaire or any other subjects related to motivations to be entrepreneurs.

Source(s): Author's own creation