

# Psycho-attitudinal features: a study of female entrepreneurs in Saudi Arabia

Psycho-attitudinal features

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## Abstract

**Purpose** – This paper aims to investigate psycho-attitudinal features in female entrepreneurs participating in micro, small and medium-sized enterprises in Saudi Arabia, using the Big Five model of personality traits and risk propensity. These attitudes, further grouped into three broad categories, namely, fixed, moderate and growth-oriented mindsets, are used to illustrate the collective impact of attitude over the entrepreneurial process.

**Design/methodology/approach** – The study is a quantitative study, using a survey to registered business owners and entrepreneurs operating in micro, small and medium businesses in Riyadh, Makkah and Eastern Province, three major administration areas of Saudi Arabia. Survey distribution was through the Chamber of Commerce located in each city. In total, 701 questionnaires were collected with 232 completed responses suitable for use in the study's empirical findings. The overall response rate was 33 per cent.

**Findings** – The paper provides practical insights into gender-specific attitudes, including reported variance over the entrepreneurial process. It shows that attitude is an equally predominant feature for both genders through all business stages, with female entrepreneurs reporting a slightly higher growth-oriented attitude relative to their male counterparts. Overall, significant differences were noted between gender and business stages for five of the six-attitudinal growth subscales. From a policy perspective, noting the country's plan for economic reform and desire for greater participation by women, there are important questions that arise concerning the impact of incentive devices and policy measures.

**Research limitations/implications** – The main limitation of this study is in the number of women participants, which was small. As participation rates for women rise, there is a good opportunity for future analysis to extend this current study's findings.

**Practical implications** – The research uses the Big Five model and risk propensity to explore the important role of attitude in female entrepreneurs. Noting the moderating influence of factors in the macro-environment and the pervasive impact of social norms on women, this study flags some implications for government and policymakers in formulating supportive policies to enable greater uptake by women entrepreneurs with growth-oriented mindsets.

**Originality/value** – This paper contributes to the literature on the role of gender-specific attitudes through the business stages. This paper presents original research on the attitudes of women in the context of Arabic society.

**Keywords** Female entrepreneurs, Entrepreneurial process, Gender-specific attitudes, Risk propensity, MSMEs

**Paper type** Research paper



## Introduction

Entrepreneurship, understood as any independent self-employment activity, is important to economic growth, social inclusion and job creation (Ahmad, 2012;

Chu *et al.*, 2011; Coy *et al.*, 2007; Hattab, 2012; Rose *et al.*, 2006; Tipu and Arain, 2011). It is for these reasons that the subject and related structural push factors, such as the benefits of self-employment, and attitudinal pull factors, such as greater job satisfaction and economic individualism, are a fertile research area. The effect of pull factors equates to intrinsic motivation (loosely defined as the desire to perform the task for its own sake) that tends to exercise a stronger influence than push factors that equate to extrinsic (for some reward) motivation (Birley and Westhead, 1994; Hamilton and Lawrence, 2001). This influence is important as studies, for example, by Badulescu and Hatos (2013), Hatos *et al.* (2015) and Hatos *et al.* (2012) have identified socio-economic conditions and cultural–institutional context (or structural features) do not exclusively explain the emergence of entrepreneurs. Accordingly, individualised psycho-attitudinal factors such as self-efficacy and intention are important (Markman *et al.*, 2005) and together with a number of other attitudes, such as risk aversion, are reported as important through the entrepreneurial process (Deakins and Freel, 1998).

This paper examines the gender-specific attitudes of female entrepreneurs, through the entrepreneurial stages, in micro, small and medium-sized enterprises (MSMEs) in Saudi Arabia. The focus is on gender-based factors. This is important for two reasons. First, research suggests that the percentage of women participating in entrepreneurial activity has generally been lower than that of men (Kelley *et al.*, 2016; Minniti and Naudé, 2010), a trend that is mirrored in Saudi Arabia and the Gulf Cooperation Council region, where participation rates for women in business activity are among the lowest globally (WB, 2017). Second, while studies of female entrepreneurs have increased in recent years, much more needs to be done in developing countries (De Vita *et al.*, 2014; Kemp *et al.*, 2015; Sullivan and Meek, 2012). That said, gender-based studies that exist have highlighted, for example, opportunities and challenges faced by female entrepreneurs (Abdelmegeed, 2015; Ahmad, 2011b; Danish and Smith, 2012; Darley and Khizindar, 2015; McAdam *et al.*, 2018; Sivakumar and Sarkar, 2012; Welsh *et al.*, 2014), factors that influence motivation (Ahmad, 2011b; Sadi and Al-Ghazali, 2010), and issues related to women empowerment (Alkhaled and Berglund, 2018; McAdam *et al.*, 2018). In Saudi Arabia specifically, which provides the geographic context for this paper, research recognises the contribution made by women in terms of economic growth in small and medium-sized enterprises, as well as the kinds of motives that drive their participation - creating jobs for themselves and others (Ahmad, 2011a, 2011b; Alkhaled and Berglund, 2018; Danish and Smith, 2012; Hattab, 2012; Minkus-McKenna, 2009; Sadi and Al-Ghazali, 2010; Welsh *et al.*, 2014). However, given the importance of attitudes in entrepreneurial intention, action and success, there is an evident gap in literature that explores the role and influence of specific attitudes in female entrepreneurs, particularly in emerging economies.

The paper presents an explanation for gender-based participation in the MSME sector based on the Big Five personality model and risk propensity. The paper is organised as follows: first, the paper reviews entrepreneurship literature from a multi-level view to locate the importance of psycho-attitudinal behaviour within the entrepreneurial process. Second, the paper outlines the research methods, data and findings, followed by a discussion of the results obtained via cross-tabulation analysis using symmetric measures of gender, attitudinal subscale and business stages. Finally, the paper highlights gender-related strengths and some constraints that government and policymakers in Arabic societies will need to consider to support increased participation by women in the workplace.

### Importance of the study

Entrepreneurship is socially embedded, meaning it is influenced by social and cultural factors such as gender, which has been found to influence perceptions of economic opportunities and levels of participation (Brush *et al.*, 2010; Davidsson, 2003). The significant role of communities and institutions in business activities has also been acknowledged in entrepreneurship literature (Brush *et al.*, 2009; Brush *et al.*, 2010; Brush and Manolova, 2004). As well, related research has shown that men generally have a higher prospect of being involved in business (Georgellis and Wall, 2005; Walker and Webster, 2007), while social structures and institutional environments (such as market regulations and tax) can enable (Alkhaled and Berglund, 2018; Leung, 2011; Welsh *et al.*, 2014) or constrain choices in the market (Ettl and Welter, 2012).

Consistent with this literature, studies in Arabic society confirm social structure and cultural norms impact on women running businesses (Ahmad, 2011a, 2011b; Alkhaled and Berglund, 2018; Alturki and Barazwell, 2010; Danish and Smith, 2012; Darley and Khizindar, 2015; Welsh *et al.*, 2014). Literature also suggests that Saudi women face difficulties at the macro and meso level of cultural, social norms and institution (Danish and Smith, 2012; Kalafatoglu and Mendoza, 2017; McAdam *et al.*, 2018). For these reasons, an examination of attitudes of female entrepreneurs is not only useful but also timely given Saudi Arabia's *Vision 2030*, the country's plan for economic reform through diversification and enhanced growth drivers. One of the identified drivers is greater participation by women in business and in entrepreneurial activity (ED Council, 2016).

From a policy perspective, noting the country's plan for economic reform and greater participation by women, there are important questions to ask concerning the impact of incentive devices and policy measures. For example, recent experimental evidence suggests that performance contingent rewards or fines and related explicit incentives sometimes result in worse compliance or incomplete labour contracts (Benabou and Tirole, 2003). Practically, in a study of policies that enhanced entrepreneurial activities in two emerging economies, Nigeria and South Africa (Akinyemi and Adejumo, 2018), findings suggest there are country-specific variations and differences across the entrepreneurial phases. For example, business registration processes are highlighted as a principal consideration in both economies at the conception stage, while labour law is also noted as important but only in South Africa. These findings are consistent with an earlier *Global Entrepreneurship Monitor (GEM)*, (2017) study in South Africa, that identified taxes and bureaucracy made for a less flexible system for entrepreneurs in which to thrive. Market regulations, such as open market policies, domestic trade and foreign exchange policies that all promote entrepreneurial activity, are shown as important for South Africa in Phase 2, firm birth or nascent (0-1 year). This factor becomes important a bit later, in the nascent opportunity stage (1-3.5 years), for Nigeria, and the factor continues to be regarded as important in the later phases of the entrepreneurial process for both economies. As well, tax is a principal factor in Nigeria through firm birth to established stages, a result that is described as reflecting the local loopholes that allow entrepreneurs to evade tax payments. Finally, as a related study of Nigerian start-ups shows, it is personality traits of entrepreneurs that makes the difference in transition across the entrepreneurial stages (Akinyemi and Ojah, 2018).

### Entrepreneurship: a multi-level structural view

Prompted by Jennings and Brush (2013) and De Bruin *et al.* (2007), this paper adopted the three-stage GEM model of *conception*, *nascent* and *consolidation* over the entrepreneurial process (Kelley *et al.*, 2011). Focusing on the impact of experience (and associated learning)

across the three-stages, attitude is shown to play an important role both in terms of actions taken and resultant outcomes (Markman *et al.*, 2005). Attitude also helps shape behaviour (Deakins and Freel, 1998). Furthermore, as a 8-year study of entrepreneurs also showed, attitude can influence business survival (Ciavarella *et al.*, 2004). Moreover, explaining the gender-specific focus of this paper, entrepreneurship literature since emerging in the 1930s has largely taken a male-centred focus or it has assumed that male and female entrepreneurs were the same (Bruni *et al.*, 2014). There is also a seeming paradox noted, at least in the research out of the USA – that while business ownership by women had grown, press and journals appear relatively silent on the subject (Baker *et al.*, 1997).

Looking ahead, there was a suggestion also that research needed to move from an individual focus to a contingency or comparative studies focus (Ahl, 2006), while De Bruin *et al.* (2007) suggested, a research approach involving multiple units of analysis. This wider level of analysis is achieved in this paper by examining the three-stages of the entrepreneurship process in conjunction with the 5M model (Brush *et al.*, 2009) that describes five structural components: macro/meso environments, markets, capital, family and management. To illustrate, there are often subtle or hidden effects in the macro and meso environment through access to resources and power at family, household, community and national levels that can affect start-ups and influence the entrepreneurial process (Szkudlarek and Wu, 2018). These five structural components are described as having a unique set of actions and outcomes (Markman *et al.*, 2005) that can change behaviour (Deakins and Freel, 1998) and influence business survival (Ciavarella *et al.*, 2004). From a gender perspective, the level and sector of participation by women has been described by Danish and Smith (2012) as the “geography” of female entrepreneurship, which explains how participation tends to strongly reflect meso and macro factors in a country. As an example, female entrepreneurs in Indonesian small and medium enterprises (SMEs) tend to be mostly in the beverage, tobacco and food industries. In contrast, in Australia, Canada and the USA, most female entrepreneurs are noted in the service sector or in retail trade (Chun (1999).

Turning to Saudi Arabia, micro, meso and macro factors clearly shape action by women entrepreneurs (McAdam *et al.*, 2018). For example, a study by Abdelmegeed’s (2015) showed that networking was deeply centred on the family and household, while a practical reality also is that socio-cultural values and norms are backed by Islamic legislation. Thus, for example, direct contact of women entrepreneurs is limited to close friends and relatives (Kalafatoglu and Mendoza, 2017), and there is a need for network mediators via male guardians (*Mahram*) and/or brokers (*Mouaqib*) (Abdelmegeed, 2015). There are also particular social expectations noted, for example in terms of the woman’s role in childcare and other family duties (Kalafatoglu and Mendoza, 2017; McAdam *et al.*, 2018). These and other expectations present considerable barriers to women (Al-Munajjed, 2010; Ramady, 2013), while gender inequity present in society is reported as constraining women’s participation (Danish and Smith, 2012) and explains why their participation is limited largely to education, human health and household activities (GAS, 2016). Conversely, and on a positive note, as a study by GEM of entrepreneurs in 59 countries also shows, entrepreneurship is perceived as a good career choice for women and local media regards entrepreneurship positively (Kelley *et al.*, 2011).

### **The entrepreneurial process: micro-level view**

As noted the GEM model uses a socio-economic approach to explain entrepreneurship in three-stages: *conception*, *nascent* that includes businesses up to 3.5 years old, and *consolidation* (Kelley *et al.*, 2011). Researchers, however, often use different terms to describe

the same three stages. For example, conception is also described as the discovery of an *opportunity* (Ardichvili *et al.*, 2003; Kelley *et al.*, 2011; Shane *et al.*, 2003) and *emergence* of a creative idea (Brockner *et al.*, 2004). The nascent or early stages are equated to multi-stages in child development: *nascent, new business* (Kelley *et al.*, 2011), as well as early childhood, toddlerhood and childhood (Cardon *et al.*, 2005) and linked to resource acquisition and evaluation of ideas (Brockner *et al.*, 2004). Consolidation, the third stage of the three-stage entrepreneurial process, is described as *adolescent* (Cardon *et al.*, 2005), *established*; (Kelley *et al.*, 2011) or *developed and successful* (Baron and Henry, 2011; Shane *et al.*, 2003). To allow a deeper examination of attitudes over the entrepreneurship process, the three-stage model is recast to the five stages (that differ in Stages 1 and 5 with the labels used in the GEM research) as shown in Table I below.

At a micro-level, the concern is with individual determinants of entrepreneurship. A strict focus on personality traits has its critics. For example, it is criticised for being too descriptive in its approach (Robinson *et al.*, 1991) or as Deakins and Freel (1998) have argued, it assumes success is associated with inherited (fixed) characteristics, while ignoring environmental influence and the impact of the entrepreneurial process itself. Yet, as other studies have highlighted, psycho-attitudinal features such as *locus* of control, risk propensity and self-efficacy, as well as intention, are each influential (Fis *et al.*, 2019; Hatos *et al.*, 2015; Kakouris *et al.*, 2018), while an investigation of success factors of SMEs in Malaysia by Rose *et al.* (2006) concluded, motivation and initiative were both important for entrepreneurial success. Overall, this micro-level view highlights important motivational “pull” factors that drive and sustain individuals to become entrepreneurs (Baron and Henry, 2011; Sullivan and Meek, 2012) and which are identified as an intrinsic element of the entrepreneurial mindset (Haynie *et al.*, 2010), without which an enterprise would likely fail (Buttner and Moore, 1997; Hughes, 2006; Neneh and Vanzyl, 2012; Rose *et al.*, 2006). Consistent with this view, entrepreneurs “pulled” or intrinsically motivated to enter a business venture are expected to achieve higher growth rates than those who have been “pushed” by extrinsic factors, such as the need for a job (Birley and Westhead, 1994; Hamilton and Lawrence, 2001). In contrast, what appears under studied at the micro-level view is the impact of learning and experience, and attitude through the entrepreneurship process (Corbett, 2005; Deakins and Freel, 1998).

At a meso level, research in Saudi Arabia shows female digital entrepreneurs can fill institutional voids (McAdam *et al.*, 2018), while another study of early-late-stage entrepreneurial activity shows that experience gained through the entrepreneurial stages can moderate the perceived challenges of female entrepreneurs (Darley and Khizindar, 2015). Of the many attitudinal variables available, this paper uses the five variables – openness, extraversion, conscientiousness, stability and agreeableness – identified in the Big Five model, as well as risk propensity. Regarded by many contemporary researchers as the five

No.	GEM process	Duration (years)	Business stage descriptor
1	Conception*	0-1	Ideation
2	Firm birth/Nascent	1-2	Nascent
3	Persistence	2-3.5	Developing
4	Established	3.5-10	Established
5	**	>10	Mature

**Table I.**  
Entrepreneurship phases and associated stage descriptors

**Notes:** \*Stage 1 ideation differs from GEM; \*\*Stage 5 not named in GEM

**Source:** Adapted from GEM (2011)

basic dimensions of personality, the Big Five model is a strong indicator of individual attitude (Ciavarella *et al.*, 2004; Leutner *et al.*, 2014; Zhao and Seibert, 2006) and it arguably offers a coherent structure and a useful convergence of views by which to assess structures that regulate personality (Digman, 1990). Moreover, the Big Five model allows a capacity to judge emotion, as well as interpersonal and experimental styles of an individual. These are all psycho-attitudinal elements important to sustaining effort over time, and particularly important in an environment lacking in entrepreneurial tradition.

The variable used in addition to the Big Five is risk propensity, which is defined as the tendency of an individual to take risk (risk-willing or -taking) or to avoid it (risk-averse). Risk propensity is another key attitudinal element in entrepreneurship. The variable is reported as determining risk taking behaviour (Sitkin and Pablo, 1992), which is strongly supported in literature as a source of entrepreneurship. As well, some researchers see risk propensity as a subscale personal trait of the Big Five (Rauch and Frese, 2007), while others suggest risk propensity forms a separate sixth dimension of personality (Zhao and Seibert, 2006; Zhao *et al.*, 2010). Importantly, for this study, individual risk propensity can differ in terms of framing conditions (Ali and Gelsdorf, 2012; Huangfu, 2014) or incentive level (Holt and Laury, 2002). For example, in a negative condition such as a financial crisis, risk taking is found to increase (Kozubiková *et al.*, 2017), while other studies simply identify risk-willing individuals as having greater potential as entrepreneurs (Kihlstrom and Laffont, 1979; Rauch and Frese, 2007). In this study, risk propensity was examined as an element of personality over the five identified stages, while to investigate the collective impact of attitude over the entrepreneurial process, the six variables were in turn grouped into three broad categories, described as fixed, moderate and growth-oriented mindsets (Dweck, 2008). Based on related research, this categorisation is useful as a growth-oriented and associated risk-willing entrepreneur is assumed to be more likely to survive and achieve success through the entrepreneurial process than the other two categories (Neneh and Vanzyl, 2012).

### Study method

This study developed scales for attitude based on the Big Five personality measures and risk propensity. In this paper, the survey consisted of 14 items constructed as a subscale of the six-attitudinal measures that were considered over time – businesses existing for less than one year, from 1-2 years, 2-3.5 years, 3.5-10 years, and more than 10 years. These time spans allow for a summation of gender-specific entrepreneurship activity and possible adjusted attitudes and behaviour the result of experiences over time. To support our analysis, the survey used a five-part Likert scale, 1 being very inaccurate to 5 very accurate. Variables within each subscale were then consolidated and recoded into three broad attitudinal categories, fixed, moderate, and growth mindset. Based on a scale of 1 (low) to 10 (high), data between 1-4 represents participants classified as reporting a fixed attitude, while 7-10 was classified as growth-oriented in attitude. Data in between these two extremes were recorded as moderate. These groupings allow for attitudinal phenomena to be examined consistent with research by Dweck (2008), which identified the power of motivation and mindset that was either open to learning and growth-oriented or fixed, and that also determined an individual's likely response to obstacles and failure (Neneh and Vanzyl, 2012).

Based on the study aim, a cross-tabulation analysis is well suited to examining the characteristics of the identified variables and is one of the more commonly used analytic methods to test the relation between two or three variables. For example: cognitive style, gender and experience (Palmquist, 2001); and service quality with customer satisfaction (Sureshchandar *et al.*, 2002). In this study three “conditional groups” are investigated, and

cross-tabulation analysis is according to the following formula  $(2 \times 5) \times 3$ : where 2 represents gender, 5 represents business stages and 3 represents the defined levels of mindset (fixed, moderate and growth). Other techniques used in this study include Cronbach’s alpha to measure data reliability and internal consistency, and phi symmetric measures to indicate the levels of significance.

Noting the aim is to examine gender-specific attitudes over the entrepreneurial stages, the study set out to gather responses from both male and female entrepreneurs in MSMEs across all sectors. The authors used random sampling of registered business owners and entrepreneurs operating in micro, small and medium businesses. The survey was distributed via the Chamber of Commerce located in the major administration areas of Saudi Arabia (Riyadh, Makkah and Eastern Province). The survey was also sent to entrepreneurs in official committees in the respective Chambers of Commerce and to business networking groups, such as “Gulf Pioneers” and “CellA Network”, to capture a greater response by women entrepreneurs. The total initial sample size of  $n = 701$  resulted in 232 completed responses used to draw empirical findings. The overall response rate was 33 per cent.

### Results

As shown in [Table II](#), the ratios for surveyed businesses in Saudi Arabia were as follows: middle of the country (35 per cent); western region (38 per cent); eastern region (13 per cent) and other (14 per cent). [Table III](#) outlines demographics data and participant’s business profile. The proportion of businesses run by women is slightly higher than men, i.e. 53 per cent compared to 47 per cent. The ages of most businessmen and women range from 30 to 39 (41 per cent) and most started in business after completing an undergraduate degree. This indicates that a large percentage of entrepreneurs in Saudi Arabia are from the “millennial” generation, a trend that is confirmed by other studies that report that the ages of most entrepreneurs range from 22 to 44 years ([Ahmad, 2011b, 2012](#); [Alturki and Barazwell, 2010](#); [Welsh et al., 2014](#)). Almost half of the respondent entrepreneurs (53 per cent) indicated they held a Bachelor degree, with some 21 per cent having completed a Masters or Doctorate degree. About 17 per cent had a Diploma, while the remaining had a high school certificate (7 per cent) or did not complete high school education (3 per cent). Three-quarters of the participants are married (75 per cent), while less than one-quarter of them are single (21 per cent), followed by divorced (4 per cent). Consistent with other studies in Saudi ([Alturki and Barazwell, 2010](#); [Naser et al., 2009](#); [Welsh et al., 2014](#)), these numbers suggest that achieving a healthy work/family life balance is possible.

Turning to the business profile of participants, [Table III](#) shows that the majority of businesses with 1-5 employees were run by women (67 per cent, compared to men 33 per cent). The larger businesses, 6-49 and 50-249 employees were predominantly run by men

Business region	Where is your business located			
	Frequency	(%)	Valid (%)	Cumulative (%)
Central region	82	35.3	35.3	35.3
Western Region	87	37.5	37.5	72.8
Eastern Region	30	12.9	12.9	85.8
In several areas	16	6.9	6.9	92.7
Other	17	7.3	7.3	100.0
Total	232	100.0	100.0	

**Table II.** Survey distribution by business region

Characteristics	Male (n = 108)		Female (n = 124)		Total (%)
	Frequency	(%)	Frequency	(%)	
<i>Age group</i>					
19-29	19	44.2	24	55.8	18.5
30-39	41	43.6	53	56.4	40.5
40-49	27	46.6	31	53.4	25.0
50 and over	21	56.8	16	43.2	15.9
<i>Education level</i>					
Less than high school	2	40.0	3	60.0	2.5
High school	6	37.5	10	62.5	6.9
Diploma	21	53.8	18	46.2	16.8
Bachelor	56	45.5	67	54.5	53.0
Post graduate	23	46.9	26	53.1	21.1
<i>Marital status</i>					
Single	19	39.6	29	60.4	20.7
Married	86	49.4	88	50.6	75.0
Divorced	3	30.0	6	66.7	3.9
Widows	0	0.0	1	0.8	0.4
<i>Nationality</i>					
Saudi	99	45.8	117	54.2	93.1
Other	9	56.3	7	43.2	6.9
<i>Number of employees</i>					
1-5 (micro)	41	33.1	83	66.9	53.4
6-49 (small)	52	61.2	33	38.8	36.6
50-249 (medium)	15	65.2	8	34.8	9.9
<i>Position in Business</i>					
Owner	61	45.9	72	54.1	57.3
Manager	17	51.55	16	48.5	14.2
Partner	30	45.5	36	54.5	28.4
<i>Ownership structure</i>					
Solo	63	48.1	68	51.9	56.5
Family business	28	41.2	40	58.8	29.3
Local partnership	14	51.9	13	48.1	11.6
Foreign partnership	3	50.0	3	50.0	2.6
<i>Type of involvement with current business</i>					
Full time	56	53.8	48	46.2	44.8
Part-time, only job	7	20.0	28	80.0	15.1
Part-time, with another job	27	57.4	20	42.6	20.3
Active partner	15	41.7	21	58.3	15.5
Silent partner	3	30.0	7	70.0	4.3

**Table III.**  
Characteristics by  
gender

(61 per cent and 65 per cent, respectively). These findings suggest participation by women in businesses is itself nascent, and growing. Using government authority approved uniform definitions for SMEs in Saudi Arabia (MCI, 2016), we describe micro-enterprises as those that use 1-5 people, while small enterprises use 6 to 49 personnel, and medium-sized enterprises 50 to 249 people. Based on these classifications, almost half of the enterprises surveyed (53 per cent) were micro-businesses, followed by 37 per cent that were small enterprises and 10 per cent were medium-sized ones.



Business ownership in terms of gender is almost equally distributed, with 46 per cent male owners and 54 per cent women. While most of the respondents were owners and partners (82 per cent), some were solely managers (14 per cent). These ratios are similar to [Alfaadhel's \(2010\)](#) study, also in Saudi Arabia, where it emerged that 74 per cent of entrepreneurs surveyed were owners or partners. The ownership structure of businesses was found to be almost similar (50 per cent) for women and men, respectively – in solo, local or foreign partnerships. Conversely, there were noticeably more women than men, 59 per cent and 41 per cent, respectively, in family-owned business. In terms of the ownership structure, some 57 per cent were essentially sole traders, a figure that is consistent with literature that reports most SMEs in Saudi Arabia are solo structured ([Alfaadhel, 2010](#)). In comparison, a study of self-employed women in Australia (developed country) reported a much higher percentage (75 per cent) in full-time employment ([Still and Walker, 2006](#)).

Construct reliability was evaluated using Cronbach's alpha coefficients. The results emerged as being satisfactory (0.85), which is greater than the expected reference value of 0.70. A reliability analysis was also conducted for each of the 6 subscales: extroversion subscale = E1 + E2 (Cronbach's alpha coefficient = 0.62); agreeableness subscale = A3 + A4 + A5 (Cronbach's alpha coefficient = 0.63); emotional Stability subscale = S6 + S7 + S8 (Cronbach's alpha coefficient = 0.50); conscientiousness subscale = C9 + C10 (Cronbach's alpha coefficient = 0.67); openness subscale = O11 + O12 (Cronbach's alpha coefficient = 0.58); and risk propensity subscale = R13 + R14 (Cronbach's alpha coefficient = 0.63). As alpha is influenced by the length of the item, too short items may result in low alpha value ([Tavakol and Dennick, 2011](#)). For these 6 subscales, which measure underlying dimensions of attitudes, an alpha ranging from 0.5 to 0.6 is acceptable.

#### *Summative attitudinal variables*

A summative scale for the six-attitudinal variables was created to measure the whole attitude construct. The mean was 55.5, with responses ranging from a minimum of 22 to a maximum of 70, with a std. deviation of 8.59, which indicates the deviation from the average is low. A histogram (not included) of the 14-items attitude scale shows a fairly normal distribution, but with a positive skew towards the higher end (scores of 58-70). Notably, in a summation of the six subscales – when extraversion, agreeableness, emotional stability, conscientiousness, openness, and risk propensity are grouped together there is a statistically significant relationship ( $p = 0.03$ ) noted between gender and business stages for a growth-oriented mindset ([Table IV](#)). In contrast, no significant relationship was evident between gender and business stages for either fixed and/or moderately fixed attitude categories ( $\Phi = 0.26$ ;  $p = 0.60$ ).

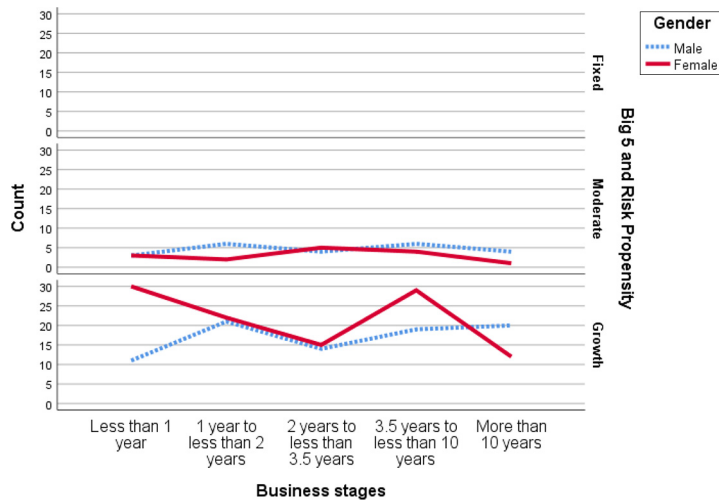
A cross-tabulation of the data indicates that a growth-oriented mindset represents the highest proportion of all respondents, with women somewhat more frequent (87 per cent) than men (79 per cent). The moderate mindset represents a small proportion of both female and male entrepreneurs, 12 per cent and 21 per cent, respectively. The fixed mindset category, perhaps, unsurprisingly for entrepreneurs, shows no respondents. [Figure 1](#) is a summation of the six variables (Big Five and risk propensity) by gender across the business stages. In general, the link noted between gender and business stage within the growth mindset category is that women are evident in the early and middle business stages, while men appear to prevail in the middle and developed stages.

As evident in [Figure 1](#), there are more women business owners than men in the < 1 year stage, in the summative growth oriented attitude (28 per cent of women; 13 per cent of men), but men are more prevalent in the mature business stage > 10 years (11 per cent of women; 24 per cent of men). There is a moderate significant relationship ( $\Phi = 0.23$ ;  $p = 0.03$ ).

**Table IV.**  
Symmetric measures  
of gender and  
summative attitude  
scales

Summative attitude	Value	Approximate significance <sup>a</sup>
<b>Fixed</b>		
Nominal by nominal		
Phi	*	
N of valid cases	1	
<b>Moderate</b>		
Nominal by nominal		
Phi	0.269	0.601
Cramer's V	0.269	0.601
N of valid cases	38	
<b>Growth</b>		
Nominal by nominal		
Phi	0.232	0.035
Cramer's V	0.232	0.035
N of valid cases	193	
<b>Total</b>		
Nominal by nominal		
Phi	0.214	0.031
Cramer's V	0.214	0.031
N of valid cases	232	

**Notes:** \*No statistics are computed because Gender and Business stages are constants. <sup>a</sup>Significant at  $P \leq 0.05$



**Figure 1.**  
Summative attitude  
variables and gender  
differences across  
business stage

Turning our attention to gender, for men the largest group of entrepreneurs reporting a growth-oriented attitude are in the second stage of business (1-2 years), with 25 per cent, followed by the mature stage > 10 years, 24 per cent. The lowest percentage of men were reported in the ideation stage of business < 1 year, with 13 per cent. In contrast, the largest group of growth minded women entrepreneurs were in the ideation stage of business < 1 year, with 28 per cent, while the lowest percentage was in the mature stage, 11 per cent.

*Big five and risk propensity*

No significant differences were identified in terms of attitudes for specific business stages. In other words, psycho-attitudinal features appear to remain consistent through all entrepreneurial stages for both genders. Each attitude subscale was tested. In five subscales – extraversion, agreeableness, emotional stability, openness and risk propensity – there is a statistically significant relationship ( $p \leq 0.05$ ) between gender and business stages within the growth category. However, the subscale of Conscientiousness fails to reach significance ( $p = 0.07$ ) for any attitude category. Nonetheless, in general, the link between gender and business stage within a growth-oriented attitudinal group is that women are more evident in the early and middle business stages, while men appear to prevail in the mature stage (Table V). Similarly, no significant relationship was evident between gender and business stages for either fixed and/or moderate attitude categories for each attitude subscale. A summary of the growth-oriented attitude finding is presented in Table V below:

Similarly, as is evident in Table V, women business owners report more strongly than men in the < 1 year stage for a growth-oriented extraversion (24 per cent of women; 13 per cent of men), but men are more prevalent in the mature business stage < 10 years (10 per cent of women; 26 per cent of men). This is a moderately significant relationship ( $\Phi = 0.26$ ;  $p = 0.01$ ). In total, female entrepreneurs reported more extroverted behaviour (81 per cent) than male entrepreneurs (79 per cent) in terms of being outgoing and being willing to confront people in a business. Consistent with literature on extraversion, female entrepreneurs are more likely than male to be outgoing (Feingold, 1994; Weisberg *et al.*, 2011).

Within the growth-oriented category, women business owners were much more likely than men to be present in the ideation < 1 year stage (27 per cent of women; 11 per cent of men), but men are more likely to be present in the mature business stage < 10 years (11 per cent of women; 21 per cent of men). This was a moderately significant relationship ( $\Phi = 0.23$ ;  $p = 0.03$ ). Female entrepreneurs presented equally in terms of agreeableness behaviour (91 per cent) to male entrepreneurs (90 per cent), indicating both gender groups were positive in all situations and enjoyed social networking meetings. This is in contrast to literature, where women tend to be more agreeable than men in emerging adulthood – the nascent stage (Weisberg *et al.*, 2011). It has also been identified by scholars that women tend to score higher than men in maintaining agreeableness through these early stages (Costa *et al.*, 2001; Feingold, 1994). From a social entrepreneurs' perspective, agreeableness was the only personality trait that positively influenced all dimensions of social entrepreneurship (Nga and Shamuganathan, 2010), although others conclude agreeableness fails to influence business intention and success (Zhao *et al.*, 2010).

For emotional stability, as evident in Table V, there are more women business owners noted than men in the < 1 year stage (26 per cent of women; 12 per cent of men), but men are more likely to prevail in the mature business stage > 10 years (11 per cent of women; 23 per cent of men). There is a moderate significant relationship ( $\Phi = 0.24$ ;  $p = 0.02$ ). As shown in Table V, female entrepreneurs within the growth category reported more strongly in emotional stability (85 per cent) than male entrepreneurs (80 per cent). Generally, literature shows women score higher than men in the scale of neuroticism (Costa *et al.*, 2001; Feingold, 1994), and this difference increases during the adulthood stage (Weisberg *et al.*, 2011). Consistently, from a business survival perspective, neuroticism was found to be unrelated to long-term survival (Ciavarella *et al.*, 2004). Emotional stability was found to have a weaker effect on entrepreneurial intentions and to performance (Zhao *et al.*, 2010).

Within the growth-oriented conscientiousness subscale, no significant relationship was evident between conscientiousness and gender as businesses went through their

**Table V.**  
Cross-tabulation of  
gender, business  
stages and growth  
attitudinal subscales

Growth psycho-attitude	Business stages				Total	Symmetric measures	
	Less than 1 year	1-2 years	2-3.5 years	3.5-10 years		More than 10 years	Phi value
<b>Extraversion</b>							
<b>Gender</b>							
Male							
Count	11	25	11	16	22	85	
% within gender	12.9	29.4	12.9	18.8	25.9	100.0	
Female							
Count	24	22	15	29	10	100	
% within gender	24.0	22.0	15.0	29.0	10.0	100.0	
Total	35	47	26	45	32	185	0.263
% within gender	18.9	25.4	14.1	24.3	17.3	100.0	0.013
<b>Agreeableness</b>							
<b>Gender</b>							
Male							
Count	11	26	17	23	20	97	
% within gender	11.3	26.8	17.5	23.7	20.6	100.0	
Female							
Count	30	24	17	30	12	113	
% within gender	26.5	21.2	15.0	26.5	10.6	100.0	
Total	41	50	34	53	32	210	0.225
% within gender	19.5	23.8	16.2	25.2	15.2	100.0	0.031

(continued)

Growth psycho-attitude	Business stages				Total	Symmetric measures	
	Less than 1 year	1-2 years	2-3.5 years	3.5-10 years		More than 10 years	Phi value
<i>Emotional stability</i>							
Gender							
Male							
Count	10	22	15	19	20		
% within gender	11.6	25.6	17.4	22.1	23.3		
Female							
Count	27	21	16	30	11		
% within gender	25.7	20.0	15.2	28.6	10.5		
Total							
Count	37	43	31	49	31		
% within gender	19.4	22.5	16.2	25.7	16.2	0.242	0.025
<i>Conscientiousness</i>							
Gender							
Male							
Count	11	15	12	20	19		
% within gender	14.3	19.5	15.6	26.0	24.7		
Female							
Count	26	19	14	27	10		
% within gender	27.1	19.8	14.6	28.1	10.4		
Total							
Count	37	34	26	47	29		
% within gender	21.4	19.7	15.0	27.2	16.8	0.222	0.073

(continued)

Psycho-attitudinal features

Table V.

Growth psycho-attitude	Business stages				Total	Symmetric measures	
	Less than 1 year	1-2 years	2-3,5 years	3,5-10 years		More than 10 years	Phi value
<i>Openness</i>							
Gender							
Male							
Count	9	18	14	20	19		
% within gender	11.3	22.5	17.5	25.0	23.8		
Female							
Count	29	20	15	28	12		
% within gender	27.9	19.2	14.4	26.9	11.5		
Total							
Count	38	38	29	48	31		0.240
% within gender	20.7	20.7	15.8	26.1	16.8		0.031
<i>Risk propensity</i>							
Gender							
Male							
Count	11	22	12	14	18		
% within gender	14.3	28.6	15.6	18.2	23.4		
Female							
Count	27	20	15	22	10		
% within gender	28.7	21.3	16.0	23.4	10.6		
Total							
Count	38	42	27	36	28		0.237
% within gender	22.2	24.6	15.8	21.1	16.4		0.047

Note: <sup>a</sup>Significant at  $P \leq 0.05$

development stages ( $\Phi = 0.22$ ;  $p = 0.07$ ). Although the relationship is not significant, women business owners are much more likely than men to be present in the < 1 year stage (27 per cent of women; 14 per cent of men), but men are more likely to be in the mature business stage > 10 years (10 per cent of women; 25 per cent of men), see Table V. In literature, women are reported as achieving higher scores compared to men on some facets of conscientiousness, such as order, dutifulness, and discipline (Costa *et al.*, 2001; Feingold, 1994). These differences, however, are not consistent across cultures and no significant differences were found in previous research in conscientiousness using the Big Five model (Costa *et al.*, 2001; Weisberg *et al.*, 2011). Long term business survival is noted as being positively related to conscientiousness (Ciavarella *et al.*, 2004).

From an entrepreneurial perspective, the strongest personality effect towards business intention and performance is openness (Zhao *et al.*, 2010). For openness within the growth-oriented category, women business owners were identified as more likely than men to be in the < 1 year stage (28 per cent of women; 11 per cent of men), but men are more likely to be in the mature business stage > 10 years (12 per cent of women; 24 per cent of men). There was a moderate relationship noted ( $\Phi = 0.24$ ;  $p = 0.03$ ) – see Table V. In total, female entrepreneurs appeared as more strong in openness behaviour (84 per cent) than male entrepreneurs (74 per cent) in terms of trying new tasks or challenges and doing things differently to improve performance. Findings also indicate openness has a significant positive influence on social entrepreneurship vision, financial returns and innovation. However, openness has a negative relationship with long-term business survival (Ciavarella *et al.*, 2004). Comparing managers and entrepreneurs, Zhao and Seibert (2006) found entrepreneurs tended to score higher in openness to experience than managers.

Finally, as evident in Table V, more women business owners in stage 1 the ideation stage < 1 year report a willingness to take risk. (29 per cent of women; 14 per cent of men), but men are more likely to be prevalent in the mature business stage > 10 years (11 per cent of women; 23 per cent of men). there was a moderate significant relationship ( $\Phi = 0.23$ ;  $p = 0.04$ ). In total within the growth risk propensity category, female entrepreneurs reported more risk-willing behaviour (76 per cent) than male (71 per cent) expressed in terms of challenging themselves and taking calculated risks. Empirical studies conclude also that business success is significantly related to an entrepreneur's risk tendency, albeit the impact is small (Rauch and Frese, 2007). Likewise, Zhao *et al.* (2010) found that risk-taking traits were positively related with entrepreneurial intentions, but not correlated with overall performance. Thus, it is suggested that an individual with high-risk propensity is more likely to open a business (Kihlstrom and Laffont, 1979; Rauch and Frese, 2007; Zhao *et al.*, 2010).

## Discussion

This paper examined entrepreneurial attitudes using the Big Five personality variables and risk propensity across the recast five-stages of the entrepreneurial process, differentiating for gender. The study found that attitude is a dominant feature for both genders at all entrepreneurial stages, with women reporting a slightly higher result than men. Further, the study shows there is a significant relationship between gender and business stages for the growth-oriented mindset category, for five of the six-attitudinal growth subscales – extraversion, agreeableness, emotional stability, openness and risk propensity. The fixed and/or moderate oriented mindsets categories were not statically significant through the entrepreneurial process for both genders.

As entrepreneurship literature has highlighted, social norms and cultural – institutional context do not fully explain entrepreneurship participation (Hatos *et al.*, 2015; Hatos *et al.*,

2012), and attitude is reported as important (Ciavarella *et al.*, 2004; Zhao and Seibert, 2006). This study identifies that women business owners were more prevalent in the ideation stage (less-than-one-year) than men for the growth-oriented summative attitude subscale. Conversely, men are more prevalent in the later stages of business. This is partly consistent with Ahmad's (2011b) and Kalafatoglu and Mendoza's (2017) findings that indicate that most women businesses are in the nascent category, but the numbers are growing (Table III – 67 per cent of micro-businesses are in fact run by female entrepreneurs). These findings need to be viewed in terms of literature that, for example, identified the macro environment as a mediating factor, influencing entrepreneurship across all business stages. A key mediating factor is cultural background (Davidsson, 2003; Lampadari, 2016). Other factors include the need for approval and support (Stefanovic *et al.*, 2010), legal and regulatory contexts (Akinyemi and Adejumo, 2018; Lampadari, 2016), and work-family interactions (Fis *et al.*, 2019; Leung, 2011). In Saudi Arabia, social and cultural norms (Abdelmegeed, 2015; McAdam *et al.*, 2018), government regulations (Welsh *et al.*, 2014), and networking (Abdelmegeed, 2015; Alturki and Barazwell, 2010; Kalafatoglu and Mendoza, 2017) are macro-environmental factors that can discourage female entrepreneurs, particularly in the mature stage of business (more than 10 years) for what is as yet unknown reasons. This effect is similarly highlighted in other studies that concluded environmental factors can support (Alkhaled and Berglund, 2018; Leung, 2011) or constrain (Ettl and Welter, 2012) the unfolding of entrepreneurship (Darley and Khizindar, 2015). For example, as Akinyemi and Adejumo (2018) identify, government regulations and bureaucracy are influential factors. At the birth (ideation) stage of business, quick registration using online platforms is important, and flexibility in market regulations, such as open market policies, as well as local and foreign trade can help a business thrive. From a woman's perspective, female entrepreneurs in Saudi Arabia may need additional support at the established and mature stages of business. Findings by Akinyemi and Adejumo (2018) regarding government policy can be supported anecdotally, by common concerns expressed by women entrepreneurs on the need to dissolve bureaucracy and for regulations to be more flexible.

These findings also provide local-to-Saudi insights in terms of the GEM report that identified three sets of framework conditions: first, *basic requirements* including institutions, infrastructure, health and primary education, second, *efficiency enhancers* including higher education, labour market efficiency, financial market and technology, and third, *innovation and entrepreneurship* including entrepreneurial finance, government policies, entrepreneurship programmes and education, research and development transfer, and physical infrastructure (Kelley *et al.*, 2011). These conditions influence entrepreneurship activity and impact the growth of economies. However, while the first two sets of framework conditions, basic requirements and efficiency enhancers are necessary to ensure markets function appropriately, the third condition of innovation and entrepreneurship is deemed as essential for growth and innovation. Findings from this study highlight the role of attitude in relation to this third framework condition and noting the moderating influence of factors in the macro and meso environments on entrepreneurial behaviour, this study flags the role by government and by policymakers in formulating supportive policies that enable women with growth-oriented mindsets' to participate in business, noting the support needed will vary across the various stages.

### Limitations and future research

This paper is not concerned with examining attribution of entrepreneurial attitude towards business, for example intention or success. Rather the paper sets out only to test gender



attitudes and variance across the five identified stages of the entrepreneurial process. A second limitation of this research is as follows: because of the limited research on women and entrepreneurship in Saudi Arabia, even less in relation to attitudes, it is difficult to compare these findings with previous studies. This study is an attempt to establish a psycho-attitudinal framework based on six variables (the Big Five model and risk propensity) and a shared understanding that can help bridge the gap in the role and influence of specific attitudes in female entrepreneurs, particularly in emerging economies. A final limitation of this study is the number of participants. A larger number of participants and a time series study is arguably best suited to testing and extending the current findings across all entrepreneurial phases. Future studies might also attempt to identify the relative significance of particular attitudes at each stage of the business process (Zhao and Seibert, 2006; Zhao *et al.*, 2010).

### Conclusion

Noting that both the socio-economic environment and cultural – institutional situation fail to fully explain entrepreneurial emergence, this study draws attention to the role of psycho-attitudinal features and motivational pull factors. Attitudes previously examined in literature include *locus* of control, self-efficacy and intention. This study used the Big Five model and risk propensity to examine gender-specific attitudes over the entrepreneurial stages – from conception or ideation (< 1 year) to mature businesses (greater than 10 years). Study findings show that attitude is a predominant feature for both genders through all business stages, with a significant relationship noted between gender and business stages for the growth-oriented mindset in five of the six growth category subscales (extraversion, agreeableness, emotional stability, openness and risk propensity). Overall, it is evident that female entrepreneurs reported a somewhat higher growth-oriented mindset than men.

The study also highlighted a greater number of women business owners relative to men in the less-than-one-year (ideation) stage of entrepreneurial business, while men are more prevalent in the later (established/mature) business stages. These phenomena collectively provide insight into gender-related attitudinal strengths and also into the moderating impact of macro and meso environmental factors. Principally, noting the importance of the third condition in the GEM report, of *innovation and entrepreneurship*, this study highlights two broad areas for policymakers. First, the need is to focus support on entrepreneurs with a growth-oriented attitude and second, greater flexibility in market regulations both in the ideation stage and later in the mature stage of business, if the Saudi government's Vision 2030 statement for greater economic development and increased women participation in business is to become a reality.

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