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Research Article

The role of gender in developing entrepreneurial intentions among University of Venda graduates

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Abstract: The purpose of this study was to investigate whether the entrepreneurial intentions are influenced by gender orientation among the University of Venda graduates in South Africa. More specifically the study aimed to test whether; Male entrepreneurs are more likely to perceive Lack of Support as a barrier to entrepreneurship intentions than female entrepreneurs; Female entrepreneurs are likely to perceive Fear of Failure as a barrier to entrepreneurship intentions than male entrepreneurs, Female entrepreneurs are more likely to perceive Lack of Competency as a barrier to entrepreneurship intentions than male entrepreneurs; and Female entrepreneurs possess a higher Risk-Taking Propensity as compared to male entrepreneurs. The study focused on the graduating students in the Department of Business Management at the University of Venda as the primary units of analysis. A structured self-administered questionnaire was used for data collection and SPSS Version 27 was used to analyse the data. The study's findings showed that Lack of Support has a positive and significant effect on Entrepreneurial Intentions of potential male entrepreneurs as compared to female entrepreneurs. The empirical findings revealed that females consider Fear of Failure as an attribute which is worth considering when making their entrepreneurial plans. The male respondents on the other hand do not consider the fear of failure as a significant impediment to their entrepreneurial plans. The study's results revealed that Lack of Competency is positively related to the Entrepreneurial Intentions of both female and male. However, the effect of Lack of Competency on Entrepreneurial Intentions is positive and significant amongst females and is not significant amongst males. The study's findings revealed that Risk-taking Propensity is positively related to the Entrepreneurial Intentions of both female respondents and male entrepreneurs.

Keywords: Gender orientation, Entrepreneurial intentions, Entrepreneur, Lack of Support, Fear of Failure, Lack of Competency.

INTRODUCTION AND BACKGROUND OF THE STUDY;

According to Bowen and De Clercq (2008) entrepreneurship is important for the economic development of any country as it lays the groundwork for perpetual prosperity and growth. As such, the more entrepreneurs an economy can muster, the more likely it is to develop as compared to others (Fuller, 2018; Krueger, 2007). The same view is echoed by Eid and El-Gohary (2013) who described entrepreneurs as the lifeblood of the global economy owing to their immense contribution to economic empowerment, employment creation, and wealth redistribution across the whole world. However, as Fatoki (2014) observes, compared to developed economies, the contribution of entrepreneurs to economic development in emerging economies like South Africa is grossly understated as a result of, among other factors, the minimal contribution of women to the entrepreneurship discourse. Ward, Hernández-Sánchez and Sánchez-García (2019) note, economic development cannot be fully achieved without the active contribution of women in entrepreneurship. As a result, Arora and Jain (2019) report that entrepreneurship orientation remains skewed considering the fact that on average globally, only a paltry 25 percent of all businesses are women-owned. Instead, as Lackéus (2015) observes, women generally prefer the comfort and predicatability in careers as evidenced by the fact that in the most entrepreneural country in the world, the USA, women account for 47 percent of the workforce and a paltry 25 percent of entrepreneurs. The same pattern is replicated in South Africa where Herrington, Kew and Kew (2010) report that South African men are almost twice more likely than women to be engaged in early entrepreneurial activities. Meanwhile, despite the fact that in South Africa entrepreneurship intention is gender skewed, Amra, Hlatshwayo and McMillan (2013) report that policy makers in South Africa now consider entrepreneurship as one of the most potent poverty eradication tools that university graduates male and female alike may latch onto to escape the unemployment plague currently gripping the country (Musetsho & Lethoko, 2017).

The current study draws inspiration from this observation as well as from Fatoki (2010), who notes that most graduates in South Africa prefer pursuing professional careers instead of self-employment ventures. In addition, Robledo, Arán, Martin-Sanchez, Molina (2015) report that the entrepreneurial intentions of university students are likely to reflect the most accurate entrepreneurial directions due to the fact that at such an early stage, their declared entrepreneurial intentions are not influenced by any previous but are based on their perceptions and attitudes in identifying business opportunities. In other words, since entrepreneurship remains the most vibrant option for graduates facing a static labour market as is the case in South Africa (Wang, Prieto & Hinrichs, 2010), one would therefore, expect graduates in South African universities to exhibit strong entrepreneurial intentions across the gender divide. Meanwhile extant literature confirms that entrepreneurship intention is often clouded in the cloak of gender with male and female entrepreneurs facing a nudge from a different set of factors. It is against this background that this study sought to understand the relationship between gender specific factors that affect entrepreneurship orientation amongst University of Venda graduates.

According to Kautonen, van Gelderen, Fink., 2015; Obschonka, Silbereisen, Schmitt-Rodermund (2010) having the entrepreneurial intentions is a strong antecedent of actual entrepreneurial behaviour. This indicates that entrepreneurial intention is an accurate predictor of actual entrepreneurial behaviour. This is the same view expressed by Ajzen (1991) who in the Theory of Planned Behaviour (TPB) suggests that an individual's desire and motivation to perform a certain act is a precedent for the performance of the behaviour. In other words, since TPB argues that there is a link between one's beliefs and eventual behaviour, it can be surmised that there is a relationship between entrepreneurial intention and the act of becoming one in the future. Therefore, in the current study, basing on extant literature, it is proposed that entrepreneurial intentions are preceded by four gender specific attributes; lack of support, fear of failure, lack of competency and risk-taking propensity as postulated by (Heilman & Chen (2003); Langowitz & Minniti (2007); Thébaud (2010); Hoogendoorn, Van der Zwan & Thurik (2019)). This study therefore, sought to test whether male and female university entrepreneurs differ in the importance they give to four gender-specific barriers to entrepreneurship. In a nutshell, after merging TPB attributes and the gender specific makers as postulated by scholars (Heilman & Chen, 2003; Langowitz & Minniti, 2007; Thébaud, 2010; Hoogendoorn, *et al.*, 2019), entrepreneurial intentions in this study are taken to depend on the personal desires of the entrepreneur (fear of failure), the perceived acceptability of entrepreneurship by the society (lack of support), the perceived feasibility of becoming a successful entrepreneur (perceived lack of competency) and the risk-taking propensity of the potential entrepreneur.

By adopting the TPB as the theoretical framework guiding this study, the study made an important contribution to the body of literature that explains the effect of gender differences on entrepreneurial intentions in a South African University. In addition, by integrating gender-related issues in the TPB, the study provided a better understanding on how different factors contribute to differences in entrepreneurial intentions (Jennings & Brush, 2013). By doing so, the study addressed a gap in current knowledge regarding the way in which gender differences shape entrepreneurial attitudes and intentions across genders. The study also fills the gap in research granted the fact that majority of the studies investigating the entrepreneurial intentions of graduates have taken place in developed countries whose contextual environment differs with what is prevailing in South Africa. Extant literature generally indicates that entrepreneurial intentions vary according to gender orientation (Lackéus, 2015; Díaz-García & Jiménez-Moreno, 2010; Ward, *et al.*, 2019). However, this literature fails to zero in on the specific gender-related attributes that affects entrepreneurship orientation amongst prospective entrepreneurs. It is in this regard that the study investigated whether the entrepreneurial intentions are influenced by gender orientation or not.

LITERATURE REVIEW

Theoretical Framework

This study uses the TPB as postulated by Ajzen (1991) to explain entrepreneurial behaviour of graduating students in the Department of Business Management at the University of Venda. The underlying assumptions of TPB are that:

1) Human behaviour is planned beforehand and therefore, is preceded by intention towards the desired behaviour;
2) Human beings are rational and make reasoned use of information available to them when making decisions; and that,
3) Intention predicts planned behaviour.

In short, TPB reasons that human beings make well-reasoned decisions based on factors at their disposal. In other words, according to the TPB, entrepreneurial intentions are the first step in the eventual entrepreneurial behaviour (Kolvereid, 1996). Therefore, the TPB aims to explain intended behaviour through three factors: the personal appraisal of the behaviour in question (personal attitude), the perceived social pressure to perform or not perform that behaviour (social norms) and the perceived ease or difficulty of performing the behaviour (perceived behavioural control). Kautonen *et al.*, (2015) and Obschonka *et al.*, (2010) state that having the entrepreneurial intentions is a strong antecedent of actual entrepreneurial behaviour. This is the same view expressed by Ajzen (1991) who in the Theory of Planned Behaviour suggests that an

individual's desire, volitions, beliefs and motivation to perform a behaviour generally precede the action or the performance of such behaviour. In other words, since TPB argues that there is a link between beliefs and eventual behaviour, we may as well surmise that there is a relationship between entrepreneurial intention and the act of becoming one in the future.

Granted that the TPB specifies the determinants of intentions to perform a certain behaviour, in this study on entrepreneurial intentions, the TPB assumes that the strength of entrepreneurial intention depends on four gender specific attributes as postulated by (Heilman & Chen, 2003; Langowitz & Minniti, 2007; Thébaud, 2010; Hoogendoorn, *et al.,* 2019).

(a) Fear of failure (personal attitude),
(b) Lack of support (subjective or social norms)
(c) Perceived lack of competence (perceived behavioural control)
(d) Risk-taking propensity

In short, after merging TPB attributes and the gender-specific makers as postulated by scholars (Heilman & Chen, 2003; Langowitz & Minniti, 2007;Thébaud, 2010; Hoogendoorn, *et al.,* 2019), entrepreneurial intentions in this study is taken to be a factor of the personal desirability towards entrepreneurship (fear of failure), the perceived social acceptability of entrepreneurship by the society (lack of support), the perceived feasibility of becoming a successful entrepreneur (perceived lack of competency) and the risk-taking propensity of the potential entrepreneur.

By adopting the TPB as the theoretical framework guiding this study, the study provided a better understanding on how the interplay between gender and the proposed factors shape differences in entrepreneurial intentions of male and female potential entrepreneurs.

Entrepreneurial intentions and gender

Even though Kristiansen and Indarti (2004) claim that demographic variables such as age, gender and individual background are the strongest predictors of entrepreneurial intentions, Ward *et al.,* (2019) argues that the most prominent demographic variable variables that influence entrepreneurship is gender. Therefore, whilst gender is socially constructed, Jennings and Brush (2013) argue that the disparity in entrepreneurial intentions between men and women can be reduced to factors such as the entrepreneurs' self-confidence. The same view is expressed by Kickul, Wilson and Marlino (2004) who in a study in the United States concluded that entrepreneurial self-confidence had a stronger effect on the entrepreneurial intentions of teenage girls than for boys. These findings are consistent with the seminal work by Bandura (1992) who proposed that women are more likely to shun entrepreneurial endeavours because of their lack of confidence in their abilities.

Glick (2006) echoed this view and identified a positive relationship between entrepreneurial intention and gender inequality thereby, concluding that in societies where women are likely to be at the bottom ends of the social hierarchy, the women are less likely to be entrepreneurs. In fact, as Saridakis, Marlow and Storey (2014) observed that in such societies, fear of failure is a more significant consideration to entrepreneurship for women compared with women in moderate societies like the USA. Commonly shared cultural gender roles can shape the opportunities and incentives that entrepreneurs experience in pursuing entrepreneurial ventures. Researchers, (Langowitz & Minnitti, 2007; Wilson *et al.,* 2007) agree that several factors impact on the participation of male and female entrepreneurs, including financial support, fear of failure, lack of competency and risk-taking propensity. Hence, in this study taking guidance from Heilman and Chen (2003), Langowitz and Minniti (2007), Thébaud (2010), three gender attached barriers to entrepreneurship intention i.e. lack of support, fear of failure, lack of competency have been isolated for a closer examination of how they can illuminate the effect of gender on the entrepreneurial intentions of graduating students at the University of Venda.

Lack of Support and entrepreneurial intention

Institutional support refers the support given to entrepreneurs by the government and other institutions in the form of finance, tax breaks and market intelligence to incentivise potential entrepreneurs to consider venturing into business (Doh & Kim, 2014). In fact, a common thread running across all countries globally is that there is a strong relationship between entrepreneurship and the availability of institutional support (ILO, 2016). The OECD (2017) reports that global economic policy recommends the provision of institutional support in the form of finance, credit guarantee schemes, tax breaks and market intelligence to entrepreneurs as a means of incentivising current and potential entrepreneurs. For example, Visser and Chiloane-Tsoka (2014) report that in South Africa the government has successfully used institutional support to develop entrepreneurship in the SME sector. As a result, institutions such as the Small Enterprise Development Agency (SEDA) and the Small Enterprise Finance Agency (SEFA) were formed to facilitate the provision of institutional support to facilitate entrepreneurship development (Abor & Quartey, 2010). Considering these observations, it can be surmised that the perceived absence of such support could therefore, act as a barrier to entrepreneurship. In addition, as Heilman, Martell and Simons (2008) report, the situation is often dire for female entrepreneurs as compared to their male counterparts granted that the influence of gender stereotypes which tend to manifest themselves naturally as most

entrepreneurs are men. Chen (2014) also reiterates this view and report that women entrepreneurs often have less access to bank credit compared with men. One can, therefore, conclude that potential female entrepreneurs face the environment for starting a business to be hostile and difficult, which may result in them perceiving the environment to be less supportive of female entrepreneurs and anticipating significant barriers in finding support.

Therefore, on the basis of these literature findings, the following hypothesis was proposed in this study;

***H*$^{1:}$** *Male entrepreneurs are likely to perceive Lack of Support as a barrier to entrepreneurship intentions than female entrepreneurs.*

Fear of Failure and entrepreneurial intention

According to Gupta *et al.,* (2008), given the gendered nature of entrepreneurship, potential female entrepreneurs may face an additional tamper to their entrepreneurial intentions in terms of fear of failure. As Guerrero and Urbano, (2016) concur, potential female entrepreneurs have a tendency of exhibiting a heightened fear of failure when starting a business venture because doing so constitutes the abandonment of a professional career which (Hoogendoorn, *et al.*, 2019) observes is a socially encouraged attribute for women. Furthermore, extant literature indicates that female entrepreneurs are more risk averse as compared to their male counterparts such that this has a negative influence on their entrepreneurial intentions.

Fear of failure has also been associated with high levels of what Winkler and Case (2014) terms entrepreneurial self-efficacy. Murnieks, Mosakowski and Cardon, (2014) reiterate that men are more likely to have high degrees of entrepreneurial efficiency which gives them an advantageous view of the business environment, enabling them to visualize entrepreneurship positively and thus, increase their belief that they can successfully launch a new venture as compared to women (Luthans & Ibrayeva, 2006). As a result, Langowitz and Minniti (2007) concluded that fear of failure is the major reason women stay away from entrepreneurship. The idea that women have lower risk tolerance maybe the basis of explaining the impact of gender on entrepreneurial intentions and on that basis the following hypothesis was proposed;

***H*^{2}:** *Female entrepreneurs are likely to perceive Fear of Failureasbarrier to entrepreneurship intentions than male entrepreneurs.*

Lack of Competency and entrepreneurial intention

Maes, Leroy and Sels (2014) propose that in some instances, overarching social gender roles and stereotypes also shape the perceptions of potential entrepreneurs have of themselves. For example, Thébaud (2010) argues that male and female entrepreneurs draw on socially generated gender status beliefs in order to assess their own abilities as businesspersons which in turn influences their entrepreneurial intentions. For example, in a study carried out in the USA, Thébaud (2011) concluded that despite having approximately equal exposure to human, social, and financial capital, women are about half as likely as men to think they have the ability to be successful entrepreneurs. In light of these observations, the following hypothesis was proposed in this study;

***H*^{3}.** *Female entrepreneurs are likely to perceive Lack of Competency as a barrier to entrepreneurship intentions than male entrepreneurs.*

Risk-taking propensity and entrepreneurial intentions

An entrepreneur can be characterised as a person who holds an uncanny innovativeness that compels him/her to bring together rare and expensive resources to produce goods and services in an unpredictable environment. Therefore, it is a well-known principle in business management that successful entrepreneurs are rewarded for the risk associated in making the decision to invest in an entrepreneurial venture (Van Aardt *et al.*, 2019). Therefore, as Parker (2018) reasons, risk is a central component in any entrepreneurship discourse and the implicit assumption running through the discourse is that all entrepreneurs, are generally risk averse and try to always avoid risks (Arthur, Hisrich & Cabrera, 2012). These risks according to Antoncic, *et al.,* (2018) stem from the ever-changing uncertainty regarding changing consumer tastes, competitor behaviours, and the economic landscape. Meanwhile, as noted previously, the personality of an entrepreneur is a significant determinant of the entrepreneurial ventures that an individual may pursue. More recent literature Antoncic, (2018; Antoncic *et al.,* 2015; Dinis *et al.,* 2013) has identified one enduring personality attribute that has a significant impact on the risk-taking and entrepreneurial intentions of entrepreneurs, gender. All the same, as Dinis *et al.,* (2013) observes, the role of gender on the risk propensity of entrepreneurs remain unsolved as researchers have failed to strike a common code on the role of gender in influencing risk-taking and entrepreneurship intentions.

Whilst some researchers (Johnson & Powell, 1994; Giunipero *et al.,* 2008; Miner & Raju, 2004) argue that entrepreneurial risk propensity is not gender sensitive as human beings naturally all avoid risks, Giacomin *et al.,* (2011) boldly make the assertion that female entrepreneurs tend to be more risk avoidant as compared to male entrepreneurs. The same view is expressed by Carter (2002) who discovered that potential female entrepreneurs tend to be more risk averse and are less likely to expect debt financing to capitalize their business ventures as compared to their male colleagues. The initial diagnosis was made by

Johnson and Powell (1994) who proffered the argument that gender plays a significant role in entrepreneurial risk-taking behaviours with female entrepreneurs emerging as moderate risk-takers as compared to their male counterparts. Later, Wagner (2007) supported this reasoning after conducting an extensive study in Germany and found gender-specific differences in risk aversion between male and female entrepreneurs with 56 percent of all women in his sample considering risk aversion as a reason to avoid entrepreneurship. Likewise, Antoncic, *et al.,* (2018) validates this state of affairs and reiterates that in general, female entrepreneurs are more risk averse as compared to the male ones and this has a negative effect on their desire to step into entrepreneurial ventures.

The emerging picture from this literature shows that gender is a factor in shaping entrepreneurial intentions and as such the following hypothesis was proposed to test this assumed relationship;

H^4: *Female entrepreneurs possess a higher Risk-Taking Propensity as compared to male entrepreneurs.*

METHODOLOGY

This study was guided by the positivist paradigm. This paradigm was most suitable given that the researcher tested a number of gender-specific variables that affects entrepreneurship orientation amongst the University of Venda graduates. Consistent with the positivism paradigm, quantitative approach was also adopted in this study. The choice of a quantitative approach was informed by the fact that it is deductive and was therefore, most appropriate in this study, which attempted to test, using quantifiable set of statistics, the variables identified in the research hypotheses. For this study, in sync with the positivist paradigm and the quantitative research approach, the study adopted the ex-post facto research design.

The study focused on the graduating students of 2020 in Department of Business Management at the University of Venda as the primary units of analysis. They were 50 graduating students in the department, whom were the targeted population for the study. Out of the 50 students, the study used convenience sampling to gather data from 39 respondents. The choice of convenience sampling in this study was motivated by the need to overcome challenges imposed by the Covid-19 induced restrictions. In addition, given the quantitative study of this nature, convenient sampling was the most appropriate tool to gather the threshold needed to make statistical inferences. As such data in this study was gathered by accessing respondents who were conveniently available for data gathering using the Survey Monkey tool. This study took effort to carefully design a self-administered structured questionnaire as the study's the measurement tool. In line with the ex-post-facto research design the choice of Chi Square analysis as a data analysis method, a self-administered structured questionnaire emerged as the appropriate data gathering tool. Given the nature of this study which is attempting to explore relationships between gender related variables affecting entrepreneurial intention, the regression analysis method on SPSS was used to test the veracity of the proposed hypotheses.

DATA PRESENTATION AND DUSCUSSION OF RESULTS

Respondent's gender

The study results indicate that male (62%) participated more than female (38%). This finding may be reflective of observations made by Farrington, *et al.,* (2012) who reports that traditionally, the higher education sector is male dominated.

Validity assessment

This study tested the convergent validity of the research instrument to test the extent to which the items on the measurement instrument converged to measure the variables they were designed to measure. In other words, all the questions on the questionnaire would be expected to converge in measuring gender-specific factors that influence entrepreneurial intentions of university students. The results of the measurement model's convergent validity test carried out using Factor Loadings (standardised estimates) are shown in Table 1.

Table 1: Convergent validity test - Factor loading

Construct	Questions	Factor loadings	P-value
Lack of Support	Lac1	.821	***
	Lac2	.901	
	Lac3	.947	
	Lac4	.793	
	Lac5	.791	
	Lac6	.838	
	Lac7	.791	
Fear of Failure	Fea1	.741	***
	Fea2	.835	
	Fea3	.725	
	Fea5	.769	
	Fea6	.785	
	Fear7	.790	
	Fear8	.760	

Lack of competency	Com1	.873	***
	Com2	.868	
	Com3	.839	
	Com4	.746	
	Com5	.842	
	Com6	.777	
Risk Propensity	Ris1	.726	***
	Ris2	.801	
	Ris3	.755	
	Ris4	.903	
	Ris5	.721	
	Ris6	.765	
	Ris7	.821	
Entrepreneurial Intentions	Ent1	.806	***
	Ent2	.821	
	Ent 3	.750	

***: significance at 0.01 level.

Source: Compiled from fieldwork data

As the table indicates, the Factor loadings of all constructs in the measurement instruments are all above the recommended threshold of 0.5 as recommended by Field (2013). This indicates that all the questions on the measurement instrument were valid to gather data in this study.

Reliability assessment

Having established the validity of the measurement model, the study also sought to establish the reliability of the measurement instrument to ensure consistence of the findings. The reliability was assessed using the Cronbach alpha coefficient and the results are shown in Table 2.

Table 2: Reliability assessment test

Construct	Questions	P-value	Cronbach alpha
Lack of Support	Lac1	***	.932
	Lac2	***	
	Lac3	***	
	Lac4	***	
	Lac5	***	
	Lac6	***	
	Lac7	***	
Fear of Failure	Fea1	***	.844
	Fea2	***	
	Fea3	***	
	Fea5	***	
	Fea6	***	
	Fear7	***	
	Fear8	***	
Lack of competency	Com1	***	.768
	Com2	***	
	Com3	***	
	Com4	***	
	Com5	***	
	Com6	***	
Risk-taking Propensity	Ris1	***	.765
	Ris2	***	
	Ris3	***	
	Ris4	***	
	Ris5	***	
	Ris6	***	
	Ris7	***	
Entrepreneurial Intentions	Ent1	***	.833
	Ent2	***	
	Ent3	***	

***: significance at 0.01 level.

Source: Compiled from fieldwork data

The reliability test results in Table 2 show significantly high levels of reliability as the lowest coefficient value stood at .758 for the construct *Lack of Competency*. The extremely high alpha coefficients of

.932 for *Lack of Support* that reflected significant reliability of all the constructs on the measurement model. This confirmed that the measurement instrument was reliable enough to gather data in this study.

Hypotheses testing

Granted that the study seeks to establish the relationship between gender and entrepreneurial intention, the study separated the responses according to gender to assess the impact of the three variables under review form each gender polar. Table 3,4,5 and 6 shows the outcome of the regression analysis carried out to test the proposed hypotheses.

Lack of support and gender-specific entrepreneurship intentions.

To test the relationship between the effect of gender on entrepreneurial intentions of the basis of gender perceptions on effects of support services on entrepreneurship, the following hypothesis was proposed;

***H*$^{1:}$** *Male entrepreneurs are likely to perceive lack of support as a barrier to entrepreneurship intentions than female entrepreneurs.*

Table 3 shows the regression analysis results done to test the veracity of this relationship.

Table 3: Lack of support and entrepreneurial intentions

Variables			**Female Respondents**		**Male Respondents**	
Dependent		Independent	Estimate	P Value	Estimates	P Value
Entrepreneurial Intention	<-	Lack of Support	. -017	.828	.393	0.01

As reflected on Table 3 the female respondents in this study do not take cognisance of lack of supporting facilities in shaping their entrepreneurial plans as the standardised estimates produced a negative value (. -170) against an extremely high p-value of .828. In other words, according to female respondents, Lack of Support is not a barrier to entrepreneurial intentions. On the other hand, with male respondents, it emerged that Lack of Support has a positive and significant effect on Entrepreneurial Intentions as its P-value (0.01) is lower than .05. This implies that when Lack of Support goes up by 1 standard deviation, Entrepreneurial Intentions also goes up by .393 of its own standard deviation thus reflecting that male respondent consider Lack of Support as a barrier to their entrepreneurial plans. Based on these findings, the null hypothesis was rejected, and the alternate hypothesis was accepted. This implies that Lack of Support is a significant predictor of entrepreneurial intention in female entrepreneurs but not in male entrepreneurs meaning that male entrepreneurs do not consider lack of support as a significant barrier to their entrepreneurial plans. This finding is two-fold in the sense that (1) it reveals that gender differences can lead to differences in entrepreneurial intents and (2) it reveals that male entrepreneurs are not impeded from pursuing entrepreneurs.

This finding concurs with claims by Venkatesh *et al.,* (2012) who notes that a favourable operating environment that support and encourage usage of new ideas can be a barrier to entrepreneurship. In this study, the availability support facilities for entrepreneurship could be construed as the appropriate facilitating conditions for the shaping of the entrepreneurial intentions of female entrepreneurs which does not affect male entrepreneurs. Farrington, *et al.,* (2012) attributes this skewed state of affairs in South Africa of the legacy of apartheid where black women where treated as lesser beings and never expected to engage in entrepreneurship. As the authors (ibid) further explain potential female entreprenurs in South Africa from a lagging infeiriority complex where they all consider support as the trigger to progress. The same result can also be connected to Antonic *et al.,* (2018) who attributes the impact of culture on gender and entreprenurship. As the scholars (ibid) reported in their study culture plays a significant role in shaping gender roles which in turns prescribes the entrepreneural direction of the two genders. Malebana's (2014) study also agrees with this study in regard to the differences in entrepreneurship orientation according to gender polarization in a South African case study. He concludes that the South African government has since taken strides to readdress these gender misalignments by prioritising the provision of institutional support for the development of entrepreneurship for female entrepreneurs.

Perceived fear of failure and gender specific entrepreneurship intentions

In testing the relationship between perceived *Fear of Failure* and gender-specific Entrepreneurial Intentions, the following hypothesis was proposed.

H^{2}*: Female entrepreneurs are likely to perceive Fear of Failure as a barrier to entrepreneurship intentions than male entrepreneurs.*

Table 4 shows the results of the regression analysis done to test this hypothesis.

Table 4: Fear of Failure and Entrepreneurial Intentions

Variables			Female Respondents		Male Respondents	
Dependent		Independent	Estimate	P Value	Estimates	P Value
Entrepreneurial Intention	<-	Fear of Failure	.164	.032	0.034	0.44

As reflected on Table 4 the female respondents in this study consider *Fear of Failure* as an attribute worth considering when making their entrepreneurial plans. As Table 4 indicates, *Fear of Failure* has a positive and significant influence on *Entrepreneurial Intentions* as its P value (0.034) is lower than .05 therefore indicating that as *Fear of Failure* goes up by 1 standard deviation, *Entrepreneurial Intentions* also go up by .144 of its own standard deviation thus indicating the positive and significant relationship between *Fear of Failure* and *Entrepreneurial Intentions.* In other words, this indicates that graduating female entrepreneurs at the University of Venda view *Fear of Failure* as a barrier to their entrepreneurial plans.

On the other hand, for the male entrepreneurs, the same regression analysis revealed a totally different picture. As the regression analysis results (standardised estimates, -0.034; p-value, 0.44) which indicates that male respondents concurred that there is no relationship between *Fear of Failure* and *Entrepreneurship Intentions*. What this implies is that the empirical findings reveal that male graduating entrepreneurs at the University of Venda do not consider *Fear of Failure* as a barrier to their entrepreneurial plans. Based on these findings, the null hypothesis was rejected, and the alternate hypothesis was accepted thus confirming that (1) gender orientation affects the entrepreneur's business plans and (2) that female entrepreneurs consider fear of failure as a barrier to entrepreneurship, but male entrepreneurs do not view fear of failure as a barrier.

The first finding again resonates with extant literature (Arora & Jain, 2019; Radipere & Dhliwayo, 2014; Robledo, *et al.,* 2015; Yordanova, 2011) which converge on the conclusion that gender is a significant determinate of entrepreneural aintentions. As the current study's findings reveals, Arora and Jain (2019) report that gender carries strong psychological and socical connotations which explains the entrepreneural orintations of male and female entrepreneurs. Radipere and Dhliwayo (2014) cites almost a similar scenario in South Africa and attributes it to skewed legal and cultural stereotypes. The study also discovered that according to differences, female entrepreneurs are averse to failure as compared to male entrepreneurs. This finding was initially reported by Saridakis *et al.,* (2014) who reported that with female entrepreneurs, fear of failure is likely to influence the assessment of risks involved in creating a new venture and thus inhibit entrepreneurial entry as generally women are not psychologically disposed to fail. The same argument is pursued by Arora and Jain (2019) who report that generally history has associated female buniness ventures with high rates of failure and with these high rates of failure, fear of failure is likely to be salient among aspiring female entrepreneurs as compared to their male counterparts who have historically known the taste of success.

Lack of competency and gender-specific entrepreneurship intentions.

The third hypothesis evaluates the effect of gender orientation of entrepreneurial intentions amongst the Department of Business Management graduating students at the University of Venda.

H^3: *Female entrepreneurs are likely to perceive lack of competency as a barrier to entrepreneurship intentions than male entrepreneurs.*

The results of regression analysis in relation to this hypothesis are displayed in Table 4.7.

Table 5: Lack of Competence and Entrepreneurial Intentions

Variables			Female Respondents		Male Respondents	
Dependent		Independent	Estimate	P Value	Estimates	P Value
Entrepreneurial Intention	<-	Lack of Competency	.067	.528	.174	.037

Source: Compiled from fieldwork data

The regression analysis results revealed that *Lack of Competency* is a positively related to the *Entrepreneurial Intentions* of both female entrepreneurs (estimate, 0.67; p value, 528) and male entrepreneurs (estimate, .174; p value, .037). However, a closer comparative analysis reveals a different picture. As Table 5 indicates, the effect of *Lack of Competency* on *Entrepreneurial Intentions* is positive (.174) and significant (037) amongst female entrepreneurs, but it is not significant (p value =.528 amongst female entrepreneurs. This means that *Entrepreneurial Intentions* are most likely to increase with perceived *Lack of Competency* amongst female entrepreneurs but not amongst male entrepreneurs. Likewise, in this study the null hypothesis was rejected, and the alternate hypothesis was accepted thus confirming that gender orientation affects the entrepreneurial plans entrepreneurs. The study reaches the conclusion that the

influence of perceived Lack of competency on Entrepreneurial Intention is more significant amongst female entrepreneurs than male respondents.

Like the other two hypotheses tested above, the findings of this regression analysis are two-fold as they (1) confirm that gender affects entrepreneurial intentions and (2) Lack of competency is felt more by female entrepreneurs as compared to male ones. With this finding, the effect of gender on entrepreneurial intention is neutral across the gender poles and this minimizes the impact of gender on entrepreneurial intentions. This can be explained by the fact that since all the respondents are due to graduate with a degree in Business Management, their studies may have contributed to shaping the attitudes of these aspiring entrepreneurs who do not perceive their competencies to be low. This echoes a study conducted by Shinnar *et al.,* (2012) where in a cross-country survey concluded that in China entrepreneurial intentions are gender neutral. But this should not tamper the picture already emerging from the previous set of result which indicates that gender differences translate into different sets of entrepreneurial intentions. As the second set of findings indicate, lack of competency is more significant among female entrepreneurs than male ones. This can be compared to a study by Robledo, *et al.,* (2015) who reports that the male dominated entrepreneurial culture in South African culture stresses the belief that hard work rather than ability determines success. This probably explains the differences between the genders on the perception on the effect of competency on entrepreneurial plans.

This is the same argument proffered by Radipere and Dhliwayo (2014) who report that societal gender roles, stereotypes, and occupational gender typically play a significant role in shaping entrepreneurial intentions with men naturally disposed to question their ability when confronted with a new challenge as reflected in this study's findings. Shinnar, *et al*.,(2012) concur and argue that generally women place high value in saving face and would therefore not venture much when in doubt as is confirmed by the findings of this study. Therefore, we can safely conclude that though there is gender alignment on the effect of gender on entrepreneurship, the fact that female respondents are more worried by the lack of competency as a barrier to entrepreneurial intentions still point to the fact that gender influences entrepreneurial intention.

Risk-taking propensity and entrepreneurial intentions

The third hypothesis proposes to evaluate the effect of gender orientation of entrepreneurial intentions amongst the Department of Management Sciences graduating entrepreneurs at the University of Venda, reads.

H*^{4}*: *Female entrepreneurs possess a higher risk-taking propensity as compared to male entrepreneurs.*

The results of regression analysis in relation to this hypothesis are displayed in Table 6.

Table 6: Risk-taking propensity and entrepreneurial intentions

Variables			**Female Respondents**		**Male Respondents**	
Dependent		Independent	Estimate	P Value	Estimates	P Value
Entrepreneurial Intention	<-	Risk-taking propensity	.605	0.01	.174	0.01

The regression analysis to explore the 4th hypothesis in this study showed that *Risk-Taking Propensity* is positively related to the *Entrepreneurial Intentions* of both female entrepreneurs (estimate, 0.605; p value, 0.01) and male entrepreneurs (estimate, .174; p value, 0.01). However, a closer comparative analysis of reveals a different picture as indicated in Table 6, the effect of *Risk-Taking Propensity* on *Entrepreneurial Intentions* is positive (0.605) and significant (0.01) amongst female entrepreneurs, but it is not significant (p value =.174 amongst male entrepreneurs. This means that though both male and female entrepreneurs consider risk as a barrier to their entrepreneurial intentions, female entrepreneurs possess a higher risk-taking propensity as compared to male counterparts and as such the alternate hypothesis is adopted and the null hypothesis rejected. The effect of risk-taking propensity on entrepreneurial intention is more significant amongst female entrepreneurs as compared to female entrepreneurs.

This finding like the others confirms two issues of significance in this study; (1) that gender shapes entrepreneurial intentions and (2) that the risk-taking propensity varies between male and female entrepreneurs. The findings indicate that all the two genders consider risk as a barrier to their entrepreneurial intentions. This result resonates with a study by (Shinnar, et al., 2012) who reported that in emerging economies like South Africa, the propensity to take risks is always positively associated with entrepreneurship. This finding also gels with a study by Antoncic, *et al.,* (2018) who reports that in countries with a troubled socio-economic context like South Africa, business risk becomes a serious consideration by entrepreneurs. The same view is also echoed by Farrington, *et al.,* (2012) who reports that the risk factor in South Africa is too high to ignore in nascent business. Though the study seems to show neutral reaction to the effect of risk on entrepreneurial intentions, the fact that there are significant differences between its effect on women as compared to men tell a different story. This indicates that there are still gender

specific drivers of entrepreneurial orientation from the perspective of risk propensity with male entrepreneurs been more prepared to take risks as compared to the female entrepreneurs. This finding echoes Hoogendoorn, *et al.*, (2019) who report that naturally men are risk takers and would be found willingly taking business risks. The same argument can also be traced to Stuart, *et al.*, (2018) who concluded that female entrepreneurs carry maternal instincts that deter them from taking bold business moves.

Conclusions of the study

The study's findings showed that Lack of Support has a positive and significant effect on Entrepreneurial Intentions of potential male entrepreneurs as compared to female entrepreneurs. On the basis of these findings, the null hypothesis was rejected, and the alternate hypothesis was accepted. It is in this regard that regarding hypothesis 1 the concludes that: Perceived lack of support is a significant predictor of entrepreneurial intention in female entrepreneurs but not in male entrepreneurs. The empirical findings revealed that the females consider Fear of Failure as an attribute which is worth considering when making their entrepreneurial plans. The male respondents on the other hand do not consider fear of failure as a significant impediment to their entrepreneurial plans. On the basis of these findings, the null hypothesis 2 was rejected, and the alternate hypotheses was accepted leading to the conclusion that: Fear of Failure is a significant predictor of entrepreneurial intention in female entrepreneurs but not in male entrepreneurs. The study's results revealed that that Lack of Competency is a positively related to the Entrepreneurial Intentions of both female and male. However, the effect of Lack of Competency on Entrepreneurial Intentions is positive and significant amongst females and is not significant amongst males. Likewise, in this study the null hypothesis 3 was rejected, and the alternate hypothesis was accepted thus confirming that gender orientation affects the entrepreneurial plans of male and female university graduates. The study, therefore, concludes that: The influence of perceived Lack of competency on Entrepreneurial Intention is more significant amongst female entrepreneurs than male respondents. The study's findings revealed that Risk-taking Propensity is a positively related to the Entrepreneurial Intentions of both female respondents and male entrepreneurs. However, the effect of Risk-taking Propensity on Entrepreneurial Intentions is more pronounced amongst female as compared to the male. This indicates that even though both male and female consider risk as a barrier to their entrepreneurial intentions, female possess a higher risk-taking propensity as compared to male counterparts and as such the alternate hypothesis 4 is adopted and the null hypothesis rejected. It is in this regard that the study concludes that: The effect of risk-taking propensity on entrepreneurial intention is more significant amongst female entrepreneurs as compared to female entrepreneurs.

Recommendations

The study recommends that entrepreneurship educators should refocus their lenses to avoid a one-size-fit-all approach to entrepreneurship training. Likewise, policy makers are advised to formulate gender sensitive entrepreneurship policies in line with the different expectations between male and female entrepreneurs. The findings also resonate with the Theory of Planned Behaviour which when applied to this study would suggest that female entrepreneurs make rational decisions is shaping their entrepreneurial intentions. As such the study recommends that policy makers and the government in South Africa should craft policies that favour women in the provision of support facilities for their entrepreneurial ventures. Universities should be encouraged to introduce business counselling modules to allay the psychological fears of engaging in business ventures.

Limitations

The study was limited to a sample frame that only consisted of graduating students from the Business Management Department at the University of Venda. Therefore, generalisation of the findings to the entire student population in South Africa should be approached with caution. In addition, given the cross-sectional design of the study, causality can only be inferred, but not established. By replicating this study among a student population over a period of time, we can potentially gain insights on how the relationship between gender and entrepreneurial intention amongst university students change over time. Lastly, the drivers of entrepreneurship intention examined in this study are not exhaustive. Therefore, future researchers are challenged to bring to the table for examination other factors that may have a bearing on gender and entrepreneurship intentions.

REFERENCE LIST

1. Abor, J., & Quartey, P. (2010). Issues in SME development in Ghana and South Africa. International research journal of finance and economics, 39(6), 215-228.
2. Antoncic, B., Antoncic, J.A., Gantar, M., Li, Z. and Kakkonen, M.L., 2015. Chance non-control and entrepreneurship. Journal of Developmental Entrepreneurship, 20(03), p.1550019.
3. Antoncic, J. A., Antoncic, B., Gantar, M., Hisrich, R. D., Marks, L. J., Bachkirov, A. A., ... & Kakkonen, M. L. (2018). Risk-taking propensity and entrepreneurship: The role of power distance. Journal of Enterprising Culture, 26(01), 1-26.
4. Arora, S., & Jain, S. (2019). Influence of gender on entrepreneurial intentions among business management students. Indian Journal of Industrial Relations, 54(3).
5. Arthur, S. J., Hisrich, R. D., & Cabrera, Á. (2012). The importance of education in the entrepreneurial process: a world view. Journal of Small Business and Enterprise Development.

6. Bandura, A. (1991). Social cognitive theory of self-regulation. Organizational behavior and human decision processes, 50(2), 248-287..
7. Bowen, H. P., & De Clercq, D. (2008). Institutional context and the allocation of entrepreneurial effort. Journal of International Business Studies, 39(4), 747-767.
8. Carter, N. M., Gartner, W. B., & Greene, P. G. (2002, August). THE CAREER REASONS OF MINORITY NASCENT ENTREPRENEURS. In Academy of Management Proceedings (Vol. 2002, No. 1, pp. D1-D6). Briarcliff Manor, NY 10510: Academy of Management.
9. Chen, L. (2014). Understanding it entrepreneurial intention: An information systems view. Journal of computer information systems, 55(1), 2-12.
10. Dinis, A., do Paco, A., Ferreira, J., Raposo, M., & Rodrigues, R. G. (2013). Psychological characteristics and entrepreneurial intentions among secondary students. Education+ Training.
11. Doh, S., & Kim, B. (2014). Government support for SME innovations in the regional industries: The case of government financial support program in South Korea. Research policy, 43(9), 1557-1569.
12. Eid, R., & El-Gohary, H. (2013). The impact of E-marketing use on small business enterprises' marketing success. The Service Industries Journal, 33(1), 31-50.
13. Farrington, S. M., Venter, D. J., & Louw, M. J. (2012). Entrepreneurial intentions: Demographic perspectives of South African business students. South African Journal of Business Management, 43(3), 41-49.
14. Fatoki, O. (2014). Parental and gender effects on the entrepreneurial intention of university students in South Africa. Mediterranean Journal of Social Sciences, 5(7), 157.
15. Fatoki, O. O. (2010). Graduate entrepreneurial intention in South Africa: Motivations and obstacles. International journal of business and management, 5(9), 87.
16. Field, A. P. (2014). Skills in Mathematics and Statistics in Psychology and tackling transition. Higher Education Academy STEM series. New York.
17. Fuller, B., Liu, Y., Bajaba, S., Marler, L. E., & Pratt, J. (2018). Examining how the personality, self-efficacy, and anticipatory cognitions of potential entrepreneurs shape their entrepreneurial intentions. Personality and Individual Differences, 125, 120-125.
18. Giacomin, O., Janssen, F., Pruett, M., Shinnar, R. S., Llopis, F., & Toney, B. (2011). Entrepreneurial intentions, motivations and barriers: Differences among American, Asian and European students. International Entrepreneurship and Management Journal, 7(2), 219-238.
19. Glick, P. (2006). 13 Ambivalent sexism, power distance, and gender inequality across cultures. Social comparison and social psychology: Understanding cognition, intergroup relations, and culture, 283-293.
20. Guerrero, M. and Urbano, D., 2016. The transformative role of universities: determinants, impacts, and challenges. In Entrepreneurial and Innovative Practices in Public Institutions (pp. 1-17). Springer, Cham.
21. Gupta, V. K., Turban, D. B., & Bhawe, N. M. (2008). The effect of gender stereotype activation on entrepreneurial intentions. Journal of applied psychology, 93(5), 1053.
22. Heilman, M. E., & Chen, J. J. (2003). Entrepreneurship as a solution: the allure of self-employment for women and minorities. Human Resource Management Review, 13(2), 347-364.
23. Hoogendoorn, B., Van der Zwan, P., & Thurik, R. (2019). Sustainable entrepreneurship: The role of perceived barriers and risk. Journal of business ethics, 157(4), 1133-1154.
24. ILO, (2016). *Policies, strategies and practices for the formalisation of micro and small enterprises.* Geneva: International Labour Organisation.
25. Jennings, J. E., & Brush, C. G. (2013). Research on women entrepreneurs: challenges to (and from) the broader entrepreneurship literature?. Academy of Management Annals, 7(1), 663-715.
26. Johnson, J. E., & Powell, P. L. (1994). Decision making, risk and gender: Are managers different?. British journal of management, 5(2), 123-138.
27. Kautonen, T., Van Gelderen, M., & Fink, M. (2015). Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. Entrepreneurship theory and practice, 39(3), 655-674.
28. Kolvereid, L. (1996). Prediction of employment status choice intentions. Entrepreneurship Theory and practice, 21(1), 47-58.
29. Kristiansen, S., & Indarti, N. (2004). Entrepreneurial intention among Indonesian and Norwegian students. Journal of enterprising culture, 12(01), 55-78.
30. Krueger Jr, N. F. (2007). What lies beneath? The experiential essence of entrepreneurial thinking. Entrepreneurship theory and practice, 31(1), 123-138.
31. Lackéus, M. (2015). *Entrepreneurship in Education: What, Why, When, How.*. Paris: OECD Publishing.
32. Langowitz, N., & Minniti, M. (2007). The entrepreneurial propensity of women. Entrepreneurship theory and practice, 31(3), 341-364.
33. Louw, E. (2020). OPINION: Why South Africa needs to stimulate female entrepreneurship. [Online]. Available from: https://www.iol.co.za/business-report/opinion/opinion-why-south-africa-needs-to-stimulate-female-entrepreneurship-42609192 [Accessed 10 October 2021].

34. Luthans, F., & Ibrayeva, E. S. (2006). Entrepreneurial self-efficacy in Central Asian transition economies: quantitative and qualitative analyses. Journal of International Business Studies, 37(1), 92-110.
35. Maes, J., Leroy, H., & Sels, L. (2014). Gender differences in entrepreneurial intentions: A TPB multi-group analysis at factor and indicator level. European Management Journal, 32(5), 784-794.
36. Miner, J. B., & Raju, N. S. (2004). Risk propensity differences between managers and entrepreneurs and between low-and high-growth entrepreneurs: A reply in a more conservative vein.
37. Murnieks, C. Y., Mosakowski, E., & Cardon, M. S. (2014). Pathways of passion: Identity centrality, passion, and behavior among entrepreneurs. Journal of management, 40(6), 1583-1606.
38. Musetsho, T. R., & Lethoko, M. X. (2017). An evaluative study on the effect of entrepreneurial education curriculum on students at the University of Venda, South Africa. The Independent Journal of Teaching and Learning, 12(1), 74-89.
39. Obschonka, M., Silbereisen, R. K., & Schmitt-Rodermund, E. (2010). Entrepreneurial intention as developmental outcome. Journal of Vocational Behavior, 77(1), 63-72.
40. OECD, (2017). *Enhancing the Contributions of SMEs in a Global and Digitalised Economy*, Paris: Organisation for Economic Co-operation and Development.
41. Parker, S. C. (2018). The economics of entrepreneurship. Cambridge University Press.
42. Radipere, Simon, and Shepherd Dhliwayo. "The role of gender and education on small business performance in the South African small enterprise sector." Mediterranean Journal of Social Sciences 5, no. 9 (2014): 104-104.
43. Robledo, J. L. R., Arán, M. V., Sanchez, V. M., & Molina, M. Á. R. (2015). The moderating role of gender on entrepreneurial intentions: A TPB perspective. Intangible capital, 11(1), 92-117.
44. Saridakis, G., Marlow, S., & Storey, D. J. (2014). Do different factors explain male and female self-employment rates?. Journal of Business Venturing, 29(3), 345-362.
45. Shinnar, R. S., Giacomin, O., & Janssen, F. (2012). Entrepreneurial perceptions and intentions: The role of gender and culture. Entrepreneurship Theory and practice, 36(3), 465-493.
46. Stuart, E., Samman, E., & Hunt, A. (2018). Informal is the new normal: improving the lives of workers at risk of being left behind (Vol. 530, p. 35). London: Overseas Development Institute.
47. Thébaud, S. (2010). Gender and entrepreneurship as a career choice: do self-assessments of ability matter?. Social Psychology Quarterly, 73(3), 288-304.
48. Van Aardt, I., & Bezuidenhout, S. (Eds.). (2019). Entrepreneurship & new venture management. Oxford University Press.
49. Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. MIS quarterly, 157-178.
50. Visser, T., & Chiloane-Tsoka, E. (2014). An exploration into family business and SMEs in South Africa. Problems and Perspectives in Management, (12, Iss. 4 (spec. iss.)), 427-432.
51. Wagner, J. (2007). What a difference a Y makes-female and male nascent entrepreneurs in Germany. Small business economics, 28(1), 1-21.
52. Wang, L., Prieto, L., & Hinrichs, K. T. (2010). Direct and indirect effects of individual and environmental factors on motivation for self-employment. Journal of Developmental Entrepreneurship, 15(04), 481-502.
53. Ward, A., Hernández-Sánchez, B. R., & Sánchez-García, J. C. (2019). Entrepreneurial potential and gender effects: the role of personality traits in university students' entrepreneurial intentions. Frontiers in Psychology, 10, 2700.
54. Wilson, F., Kickul, J., & Marlino, D. (2007). Gender, entrepreneurial self–efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education. Entrepreneurship theory and practice, 31(3), 387-406.
55. Winkler, C., & Case, J. R. (2014). Chicken or egg: Entrepreneurial self-efficacy and entrepreneurial intentions revisited. Journal of Business and Entrepreneurship, 26(1), 37-62.
56. Yordanova, D. I. (2011). The effects of gender on entrepreneurship in Bulgaria: an empirical study. International journal of management, 28(1), 289.