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Gender differences in entrepreneurial intention in the rural provinces of South Africa

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Abstract

This paper investigates gender differences in entrepreneurial intention and the determinants of entrepreneurial intention based on a sample of 355 final-year commerce students from two rural provinces in South Africa, namely Limpopo and the Eastern Cape.

The study is based on the theory of planned behaviour (TPB). The objectives of the study were to test whether the TPB can help explain gender differences in entrepreneurial intention and the determinants of entrepreneurial intention.

The findings reveal that the TPB is a valuable tool in explaining gender differences in entrepreneurial intention. Male respondents differed significantly from their female counterparts in entrepreneurial intention and the determinants of entrepreneurial intention. Gender had a significant relationship with entrepreneurial intention, the attitude towards becoming an entrepreneur, perceived behavioural control, subjective norms and entrepreneurial self-efficacy.

The originality of this study and its contribution to the body of knowledge lie in it being the first in a South African context to examine gender differences in entrepreneurial intention based on all the widely established theoretical determinants of entrepreneurial intention using the TPB.

Key *phrases*

entrepreneurial attitudes, entrepreneurial self-efficacy, entrepreneurial support, theory of planned behaviour (TPB)

1. INTRODUCTION

Entrepreneurial intention research has grown rapidly over the past three decades since the introduction of the two dominant models of entrepreneurial intention namely, the Shapero and Sokol's model of the entrepreneurial event in 1982 and the theory of planned behaviour in 1985 (Ajzen 2005:117; Ajzen 2012:439; Krueger, Reilly & Carsrud 2000:413; Miralles, Riverola & Giones 2012:482-483; Schlaegel & Koenig 2014:291). This has been driven by the fact that entrepreneurial intention influences the creation of a new venture and its subsequent success (Bird 1988:443-444) and is strongly associated with entrepreneurial

behaviour (Delanoë 2013:393; Herrington & Kew 2014:22; Zhang & Yang 2006:167) or entry into self-employment (Kolvereid & Isaksen 2006:882).

Thompson (2009:676) defines entrepreneurial intent as "self-acknowledged convictions by individuals that they intend to set up new business ventures and consciously plan to do so at some point in the future". Despite the fact that a large number of researchers have published extensively about entrepreneurial intentions, this approach continues to grow (for example Douglas 2013:634; Malebana 2014a:130-131; Miralles *et al.* 2012:483; Schlaegel & Koenig 2014:291).

Previous research indicates that there are gender differences in entrepreneurial intention (Haus, Steinmetz, Isidor & Kabst 2013:17; Zhang, Duysters & Cloodt 2014:637) and participation in entrepreneurial activity (Delanoë 2013:392; Herrington & Kelley 2013:31; Herrington, Kew & Kew 2015:29). However, these differences seem to vary from region to region (Haus *et al.* 2013:17). Males are more likely than females to display higher intentions to start a business (Driga, Lafuente & Vaillant 2005:Internet; Herrington & Kew 2014:46; Schenkel, Azriel, Brazeal & Matthews 2007:Internet; Wilson, Kickul & Marlino 2007:395).

Currently South Africa's total entrepreneurial activity rate is 7.0% while the percentage of individuals who have entrepreneurial intentions is 11.8%, which have dropped from 2013 percentages of 10.6% and 15.4% respectively (Herrington *et al.* 2015:22). These findings are worrying given the high unemployment rate in South Africa of 34.6%, with over 38% of women and over 31% of men being unemployed (Statistics South Africa 2015:13-15). These statistics have important policy implications for entrepreneurial support interventions, particularly those that are aimed at promoting women entrepreneurship. Stimulating entrepreneurial intention and supporting those with entrepreneurial intention to start a business is vital in order to improve entrepreneurial activity and reduce unemployment in South Africa.

Despite the fact that South Africa's total entrepreneurial activity rates and entrepreneurial intentions are the lowest in sub-Saharan Africa (Herrington *et al.* 2015:21-22), the government is of the view that encouraging the development of new enterprises can help in reducing the high unemployment in the country (Department of Trade & Industry 2013:4). As a result various support measures had been introduced in order to create an enabling environment for both new and existing enterprises (Department of Trade & Industry 2005:3).

These support measures are also targeted at women who want to start and grow their own businesses (Department of Trade & Industry 2005:9-10; Department of Trade & Industry

2013:32). However, the impact of these support measures seems to be doubtful as entrepreneurial intention in South Africa and more so of women is very low compared to other sub-Saharan African countries (Herrington *et al.* 2015:21-22; Herrington & Kelley 2013:24 & 32). The percentage of people who are engaged in the efforts to start new businesses (nascent entrepreneurship) is 3.9% while the new business ownership rate is 3.2%. These percentages are far below the averages of sub-Saharan African countries of 14.1% for nascent entrepreneurship and 13.0% for new business ownership rate (Herrington *et al.* 2015:26).

2. PROBLEM STATEMENT

Entrepreneurial intention research in South Africa has not yet explored how gender differences in the determinants of entrepreneurial intention explain the low levels of entrepreneurial intention among females compared to males, except for entrepreneurial self-efficacy by Urban (2010:6). More specifically, this study uses the theory of planned behaviour to establish whether there are gender differences in entrepreneurial intention and whether the theoretical determinants of entrepreneurial intention have a contributory effect on gender differences in entrepreneurial intention in the Eastern Cape and the Limpopo provinces.

These provinces are the least urbanised provinces in South Africa (Statistics South Africa 2006:22). The theory of planned behaviour is considered to be a valuable framework in this study as it will not only help to identify causes of the differences in entrepreneurial intention, but will be valuable in making recommendations for the development of interventions that could address these causes.

While the theory of planned behaviour can be used to evaluate the impact of interventions on the determinants of intentions, intentions and behaviour, it can also guide the development of interventions that influence the determinants of intentions, intentions and behaviour (Ajzen 2011:94; Ajzen 2012:454). Therefore, an understanding of the causes of low entrepreneurial intentions among females compared to males is vital not only for the entrepreneurial intention theory but for improving entrepreneurial activity of females in South Africa, especially in rural areas.

3. RESEARCH OBJECTIVES

The primary objective of this study was to determine whether there are gender differences in entrepreneurial intention among final-year commerce students in the rural provinces of

South Africa. Differences in entrepreneurial intention between males and females can be attributed to differences in the determinants of entrepreneurial intention. As a result, the secondary objectives of the study were to determine gender differences in the determinants of entrepreneurial intention and the relationship between gender, entrepreneurial intention and its antecedents.

4. LITERATURE REVIEW

4.1 The theory of planned behaviour and the determinants of entrepreneurial intention

The theory of planned behaviour (TPB) has become the most dominant model of entrepreneurial intention in entrepreneurship research followed by the Shapero and Sokol's model of the entrepreneurial event (see Byabashaija & Katono 2011:131; Haus *et al.* 2013:7; Liñán, Nabi & Krueger 2013:3; Malebana 2014a:132-134; Miralles *et al.* 2012:483; Sahinidis, Giovanis & Sdrolias 2012:63-64; Schlaegel & Koenig 2014:295-297).

The popularity of this theory lies in its ability to explain and predict a wide variety of behaviours (Ajzen 2012:454), including the entrepreneurial behaviour based on individuals' intentions (Krueger *et al.* 2000:412). Hence entrepreneurial intention is the most important immediate determinant of entrepreneurial behaviour that precedes entrepreneurial action (Ajzen 2005:117; Ajzen 2012:438; Douglas 2013:637; Kolvereid & Isaksen 2006:881). Since its introduction, the TPB has been empirically tested and validated in numerous studies.

According to the TPB, entrepreneurial intentions are determined by the attitude towards the behaviour, subjective norms and perceived behavioural control (Ajzen 2005:117-118; Ajzen 2012:438). In this theory the intention to engage in a particular behaviour depends first, on how favourable or unfavourable that behaviour is being evaluated.

Second, individuals should believe in their ability to perform the behaviour. Last, an individual should perceive the social pressure to perform or not to perform the behaviour and be motivated to comply with the expectations of significant others or social referents should be engaged in the same behaviour.

4.1.1 Attitude towards the behaviour

Attitude towards the behaviour refers to the degree to which an individual has a favourable or unfavourable evaluation of a particular behaviour (Ajzen 2005:118). Ajzen (2005:123) argues that people develop attitudes from the beliefs they hold about the consequences of performing the behaviour. Individuals will develop positive attitudes towards a given

behaviour and intend to perform it when performance of such behaviour leads to attractive outcomes (Kolvereid & Isaksen 2006:880; Saeed, Yousafzai, Yani-De-Soriano & Muffatto 2013:11; Volery, Müller, Oser, Naepflin & del Rey 2013:437).

By observing the consequences of the actions of other people who are entrepreneurs, individuals would either adopt a positive or negative attitude towards becoming an entrepreneur and also intend or not intend to start a business (Geissler & Zanger 2013:10; Marques, Ferreira, Gomes & Rodrigues 2012:667; Uygun & Kasimoglu 2013:34; Zhang *et al.* 2014:634).

4.1.2 Perceived behavioural control and entrepreneurial self-efficacy

Perceived behavioural control refers to individuals' judgements concerning their capability to perform a given behaviour, the extent to which they have the requisite resources and opportunities and other factors that may facilitate or hinder the performance of the behaviour (Ajzen 2005:107-109; Ajzen 2012:447). The formation of control beliefs depends on factors such as past experience with the behaviour, second-hand information about the behaviour, observing the experiences of acquaintances and friends and other factors that could make it possible or difficult for an individual to perform the behaviour in question.

Perceived behavioural control originates from the concept of perceived self-efficacy (Ajzen, 2005:93), which is defined as "people's judgements of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986:391). These concepts have been reported to be similar in that they are both concerned with individuals' judgements of their own capability to perform a given task (Kolvereid & Isaksen 2006:867; Liñán & Chen 2009:596). Both perceived behavioural control and perceived self-efficacy can be enhanced by exposure to entrepreneurial role models and an entrepreneurial family background (Barnir, Watson & Hutchins 2011:283; Geissler & Zanger 2013:11; Uygun & Kasimoglu 2013:34). On the contrary, Wang, Prieto & Hinrichs. (2010:49) found that an entrepreneurial family background is not related to entrepreneurial self-efficacy.

Self-efficacy as applied to entrepreneurship is referred to as entrepreneurial self-efficacy that is defined as the degree to which individuals believe that they have the necessary skills to successfully start a new business venture (Brice & Spencer 2007:52). According to Forbes (2005:599), entrepreneurial self-efficacy can influence individuals' decision to start a business and the effectiveness with which they manage their ventures once they have founded them. Individuals who have high entrepreneurial self-efficacy are more likely to

display intentions to start a business and become nascent entrepreneurs (McGee, Peterson, Mueller & Sequeira 2009:983; Sequeira, Mueller & McGee 2007:286) and create new ventures (Blackford, Sebora & Whitehill 2008:960). Entrepreneurial self-efficacy and perceived behavioural control are related concepts that impact entrepreneurial intention differently (Schlaegel & Koenig 2014:305).

4.1.3 Subjective norms

Subjective norms refer to the extent to which an individual perceives the social pressure to perform or not to perform the behaviour (Ajzen 2012:443). Individuals are more likely to form intentions to perform a given behaviour when they believe that their social referents would approve of performing that behaviour or when these social referents themselves engage in the same behaviour (Ajzen 2005:124). Such intentions also depend on whether individuals are motivated to comply with the expectations of their social referents (Ajzen 2012:443). Social referents may include a person's parents, spouse, close friends, co-workers and even experts in the behaviour of interest.

The findings regarding the influence of subjective norms on entrepreneurial intentions are mixed. In some studies they are non-significant (for example in Ajzen 2005:120; Krueger *et al.* 2000:422; Liñán & Chen 2009:606-607; Liñán, Urbano & Guerrero 2011:206; Nishimura & Tristán, 2011:67), while in others they are significant (Gird & Bagraim 2008:717; Malebana 2014a:137-138; Otuya, Kibas, Gichira & Martin 2013:142; Schlaegel & Koenig 2014:305-308). These findings suggest that the effect of subjective norms varies between countries. Prior research indicates that subjective norms are more likely to be important in collectivist cultures and where entrepreneurship is valued as a career option (Liñán & Chen 2009:611) or in societies with strong traditions of entrepreneurship (Krueger *et al.* 2000:424).

4.2 Gender differences in the determinants of entrepreneurial intention

Previous research had shown that entrepreneurial intention is significantly related to entrepreneurial self-efficacy (Malebana & Swanepoel 2014:17-19; Saeed *et al.* 2013:11; Schlaegel & Koenig 2014:304) and the determinants of entrepreneurial intention in the theory of planned behaviour namely, the attitude towards entrepreneurship, perceived behavioural control and subjective norms (Gird & Bagraim 2008:718; Malebana 2014a:137-138; Otuya *et al.* 2013:142; Schlaegel & Koenig 2014:304-307). In addition, strong favourable attitude towards entrepreneurship and high levels of perceived behavioural control are significantly related to entrepreneurial behaviour (Nishimura & Tristán 2011:64-65).

Gender differences in entrepreneurial intention can be attributed to varying perceptions among males and females with regard to the determinants of entrepreneurial intention. Differences in perceived entrepreneurial self-efficacy (Kickul, Wilson, Marlino & Barbosa 2008:329; Wilson *et al.* 2007:395), the attitude towards entrepreneurship (Liñán *et al.* 2011:207; Veciana, Aponte & Urbano 2005:176), perceived behavioural control (Liñán *et al.* 2011:207; Sahinidis *et al.* 2012:72; Santos, Roomi & Liñán 2014:10) and subjective norms (Shneor, Camgöz & Karapinar 2013:795) account for gender differences in entrepreneurial intentions.

Since perceived entrepreneurial self-efficacy has a strong influence on entrepreneurial intention of females (Kickul *et al.* 2008:329), it is crucial that interventions aimed at promoting women entrepreneurship focus on enhancing entrepreneurial self-efficacy. Such interventions should improve females' knowledge about entrepreneurship, equip them with the necessary skills to execute the entrepreneurial process and increase confidence in their ability to start a business (Sahinidis *et al.* 2012:74).

Researchers found a positive relationship between perceived entrepreneurial ability/skills and the decision to start a business (Townsend, Busenitz & Arthurs 2010:199) and a strong association with entrepreneurial activity (Arenius & Minniti 2005:239; Bosma, Jones, Autio & Levie 2007:37). While Urban (2010:6) reported significant gender differences in entrepreneurial self-efficacy on two out of five dimensions based on a sample of South African students, Campo (2011:19) did not find significant gender differences in entrepreneurial self-efficacy and entrepreneurial intention.

Research findings indicate gender differences in the attitude towards entrepreneurship, perceived behavioural control and subjective norms (do Paço, Ferreira, Raposo, Rodrigues & Dinis 2015:65-66; Maes, Leroy & Sels 2014:790; Santos & Liñán 2010:21; Yordanova & Tarrazon 2010:256; Haus *et al.* 2013:18) which have a direct effect on entrepreneurial intention (Sahinidis *et al.* 2012:72). Females tend to have less favourable entrepreneurial attitudes and lower perceived behavioural control and perceive less supportive subjective norms than males (Yordanova & Tarrazon 2010:256).

Entrepreneurial intention of females is more likely to be high when they have high levels of perceived behavioural control and when socially supportive norms prevail in their environment (Yordanova & Tarrazon 2010:254-255). On the contrary Karimi, Biemans, Lans, Chizari, Mulder and Mahdei (2013:209) reported that entrepreneurial intention of males is influenced by the attitude towards entrepreneurship while that of females is shaped by

subjective norms. Females are also more likely to be motivated to comply with social demands than their male counterparts (Maes *et al.* 2014:791) and their intention to start a business depends on perceived social support that can be received from those close to them (Díaz-García & Jiménez-Moreno 2010:270).

Existing literature as discussed had shown that entrepreneurial intention of males and females can be explained by different antecedents of entrepreneurial intention. Therefore, inculcating positive entrepreneurial attitudes, enhancing perceived behavioural control and creating socially supportive norms are vital in improving low entrepreneurial intention and entrepreneurial activity rates among females.

4.2.1 The role of the social environment in shaping entrepreneurial intention and its determinants

Gender differences in entrepreneurial intention and entrepreneurial activity can be influenced by the social environment (do Paço *et al.* 2015:68-69) since entrepreneurial activity is a social activity (Stephan & Uhlaner 2010:1358). For example, the presence of entrepreneurial role models (Arenius & Minniti 2005:239; Barnir *et al.* 2011:285; Karimi *et al.* 2013:208; Uygun & Kasimoglu 2013:33-34) and the value attached to entrepreneurship in the society (Liñán *et al.* 2011:207; Liñán *et al.* 2013:12-13; Santos & Liñán 2010:20-23) can impact positively or negatively on the determinants of entrepreneurial intention, entrepreneurial intention and nascent entrepreneurship.

Entrepreneurial role models seem to exert a stronger effect on entrepreneurial self-efficacy of females than males, with entrepreneurial self-efficacy playing a strong mediation role on the effect of role models on entrepreneurial intention for females than for males (Barnir *et al.* 2011:287). On the contrary Driga *et al.* (2005:Internet) found that the effect of entrepreneurial role models on the entrepreneurial decision is greater for males than it is for females. In addition, males tend to display higher levels of entrepreneurial intention than females even when both have an entrepreneurial family background (Schenkel *et al.* 2007:Internet).

Perceived entrepreneurial self-efficacy can be determined by the prevailing social norms (Wang *et al.* 2010:490) and is more likely to be enhanced when an individual has supportive strong ties (Chen & He 2011:153), which have been found to be related to entrepreneurial intention and nascent behaviour (Sequeira *et al.* 2007:286).

4.2.2 Promoting entrepreneurial intention and entrepreneurial activity through entrepreneurship education and entrepreneurial support

Exposure to entrepreneurship education and the provision of entrepreneurial support have emerged as valuable interventions for stimulating entrepreneurial intention (Yordanova & Tarrazon 2010:257; Zhang *et al.* 2014:634). The determinants of entrepreneurial intention can also be impacted positively by entrepreneurship education (Blackford *et al.* 2008:960; Byabashaija & Katono 2011:137; Malebana & Swanepoel 2014:12; Volery *et al.* 2013:439) and the knowledge of entrepreneurial support (Malebana 2014b:1025; Saeed *et al.* 2013:11). In addition, exposure to entrepreneurship education (Dickson, Solomon & Weaver 2008:247) and awareness of and access to entrepreneurial support can contribute to improved entrepreneurial activity rates in terms of new start-ups (Delanoë 2013:393; Zanakis, Renko & Bullough 2012:20).

5. RESEARCH METHODOLOGY

5.1 Population and sampling method

The population comprised 814 third-year students registered for full-time studies in 2010 at two selected universities in the Limpopo and the Eastern Cape provinces. The researcher had intended to use a census survey of all 814 students, but owing to circumstances beyond the researcher's control, only 355 students participated in the study.

In line with previous research on entrepreneurial intention (Krueger *et al.* 2000:420; Liñán & Chen 2009:602; Liñán *et al.* 2011:199), this sample of students from rural provinces was chosen, because as final-year students they were facing important career decisions upon completion of their studies, and starting their own business was a possible option. The researcher requested permission from the Heads of Department at the two selected institutions to involve their lecturers and students in the research project.

Students completed the questionnaires during their lectures and returned them immediately to their lecturers after completion. The only group that was given the questionnaires to complete at home was the entrepreneurship students in the Eastern Cape province.

5.2 Data collection and statistical analysis

The questionnaire was designed on the basis of structured and validated questionnaires that were used in previous entrepreneurial intention studies. All questions measuring entrepreneurial intention, the attitude towards becoming an entrepreneur, perceived behavioural control and subjective norms were adopted without alterations from Liñán and

Chen's (2009:612-613) entrepreneurial intention questionnaire. These authors' questionnaire has been designed for measuring entrepreneurial intention and its antecedents in the TPB and has also been used and validated by Guerrero, Lavín and Álvarez, (2009:90); Liñán *et al.* (2011:215); Liñán *et al.* (2013:9) and Otuya *et al.* (2013:136).

Questions measuring entrepreneurial intention and its antecedents were based on a five-point Likert scale (1=Strongly disagree, 5=Strongly agree) while those involving demographic data were measured as binary variables (0=No, 1=Yes; 0=Female, 1=Male).

The questionnaire consisted of 51 Likert-type questions that were distributed as follows: entrepreneurial intention (9 items), the attitude towards becoming an entrepreneur (6 items), perceived behavioural control (9 items), subjective norms (3 items) and entrepreneurial self-efficacy (24 items). Entrepreneurial self-efficacy measured students' perceived ability to carry out entrepreneurial tasks and comprised measures adopted from Kickul and D'Intino (2005:42-43); Kolvereid and Isaksen (2006:877) and McGee *et al.* (2009:978).

Demographic control variables that were included in the study are previous or current employment status (work experience); prior start-up experience (currently owns a business or has tried to start a business before) and entrepreneurial role models (in the family, friends who are currently running businesses or knowledge of other people who are entrepreneurs). Previous research found that these variables are related to entrepreneurial intention (Barnir *et al.* 2011:285; Kickul *et al.* 2008:329; Zhang *et al.* 2014:634), the attitude towards becoming an entrepreneur (Uygun & Kasimoglu 2013:34; Veciana *et al.* 2005:177), perceived behavioural control (García-Rodríguez, Gil-Soto, Ruiz-Rosa & Sene 2013:13), entrepreneurial self-efficacy (Kickul *et al.* 2008:326-328; Wilson *et al.* 2007:396; Uygun & Kasimoglu 2013:32) and nascent entrepreneurship (Arenius & Minniti 2005:242).

The data were analysed by means of the Statistical Package for the Social Sciences (SPSS). Cronbach's alpha was used to test the reliability of the measuring instrument. The 51 factors measuring the dependent variable and the independent variables were subjected to exploratory factor analysis using varimax rotation method in order to determine the validity of the measuring instrument.

Both descriptive and nonparametric statistics were used to analyse the data in this study. The use of non-parametric statistics was dictated by ordinal data and the fact that the data were not normally distributed. The independent variables of the study were the attitude towards becoming an entrepreneur, perceived behavioural control, entrepreneurial self-efficacy and subjective norms.

The dependent variable was entrepreneurial intention. Mann-Whitney U test was used to test for statistical significant gender differences in entrepreneurial intention, the attitude towards becoming an entrepreneur, perceived behavioural control, entrepreneurial self-efficacy and subjective norms among the respondents. Chi-square test was used to determine whether gender was significantly associated with entrepreneurial intention and its determinants.

5.3 Validity and reliability

Cronbach alpha values were as follows: perceived behavioural control (0.818), subjective norms (0.826), the attitude towards becoming an entrepreneur (0.872), entrepreneurial intention (0.903) and entrepreneurial self-efficacy (0.940). Therefore, given the high reliability scores of the constructs the questionnaire was considered to be reliable (Field 2013:712).

Principal component analysis extracted nine factors with eigenvalues greater than one that in combination accounted for 64.5% of variance explained. Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.915, which was well above the acceptable limit of 0.5 (Field 2013:706). Bartlett's Test of Sphericity was highly significant ($p < 0.001$), indicating that entrepreneurial intention had significant relationship with the attitude towards becoming an entrepreneur, perceived behavioural control, subjective norms and entrepreneurial self-efficacy. Therefore, the results suggest that factor analysis was appropriate for the data.

6. FINDINGS

6.1 Demographic profile of the respondents

The respondents were 355 final-year commerce students who were registered for the 2010 academic year. Of these, 77.7% were from a comprehensive university in the Eastern Cape and 22.3% from a university of technology in Limpopo. Of the respondents, 67.8% were female and 32.2% were male. The majority (76.1%) of the respondents were aged between 18 and 24 years; 22.5% were between 25 and 34 years; and just over 1% were between 35 and 64 years.

The majority of the respondents had never been employed (69.8%), and 95.9% were currently unemployed. In terms of entrepreneurial knowledge, 6.6% of the respondents were 'currently running their own businesses'; 34% 'had family members who are running a business'; 28.1% 'had friends who are currently running businesses'; 57.8% 'knew other people who are entrepreneurs'; and 26.7% 'had tried to start a business before'.

Descriptive statistics and correlations between variables are shown in Table 1.

TABLE 1: Descriptive statistics and correlations among variables

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Gender	0.32	.468	1												
2. Currently employed	1.96	.198	.077	1											
3. Has been employed before	1.69	.462	-.113*	.122*	1										
4. Currently runs a business	1.93	.248	-.078	.074	.162**	1									
5. Family members run a business	1.66	.474	-.101†	.105†	.157**	.223**	1								
6. Friends run a business	1.72	.450	-.090	.170**	.307**	.322**	.357**	1							
7. Knows someone who is an entrepreneur	1.42	.495	-.156**	.048	.158**	.225**	.287**	.352**	1						
8. Has tried to start a business before	1.73	.443	-.184**	.022	.182**	.355**	.189**	.213**	.206**	1					
9. Entrepreneurial intention	2.12	.960	.161**	.026	-.118*	-.143**	-.038	-.209**	-.152**	-.185**	1				
10. Attitude towards becoming an entrepreneur	2.06	.944	.171**	.013	-.116*	-.127*	-.061	-.125*	-.193**	-.166**	.695**	1			
11. Perceived behavioural control	2.17	.941	.172**	-.013	-.043	-.139**	-.115*	-.196**	-.196**	-.198**	.452**	.379**	1		
12. Subjective norms	2.15	.912	.108*	-.063	-.030	-.130*	-.117*	-.172**	-.211**	-.085	.307**	.313**	.289**	1	
13. Entrepreneurial self-efficacy	2.13	.986	.116*	-.034	.046	-.128*	-.006	-.067	-.031	-.047	.287**	.282**	.266**	.226**	1

Notes: †P < 0.10

*P < 0.5

**P < 0.01

Source: Author's compilation from data analysis

The overlap between the percentages of the respondents who were currently unemployed and those who were currently running their own businesses suggests that some respondents

did not consider running one's own business as being employed. With 98.6% of the respondents falling below the age of 35 years it means that the respondents are an ideal group for studying the entrepreneurial intention of the youth. Thus, the results could be valuable for policy makers dealing with youth entrepreneurship development issues, particularly the rural youth.

In line with previous research entrepreneurial intention and its antecedents had some significant correlations with demographic control variables such as prior work experience, prior start-up experience (currently owns a business or has tried to start a business before) and entrepreneurial role models (in the family, friends who are currently running businesses or knowledge of other people who are entrepreneurs). Entrepreneurial intention was significantly correlated with all its theoretical antecedents, namely the attitude towards becoming an entrepreneur ($r = 0.695$, $p < 0.01$), perceived behavioural control ($r = 0.452$, $p < 0.01$), subjective norms ($r = 0.307$, $p < 0.01$) and entrepreneurial self-efficacy ($r = 0.287$, $p < 0.01$). Gender had a significant correlation with entrepreneurial intention ($r = 0.161$, $p < 0.01$), the attitude towards becoming an entrepreneur ($r = 0.171$, $p < 0.01$), perceived behavioural control ($r = 0.172$, $p < 0.01$), subjective norms ($r = 0.108$, $p < 0.05$) and entrepreneurial self-efficacy ($r = 0.116$, $p < 0.05$).

6.2 Gender differences in entrepreneurial intention and the determinants of entrepreneurial intention among the respondents

Gender differences in the determinants of entrepreneurial intention and entrepreneurial intention were tested by means of the Mann-Whitney *U* test. The results (Table 2) revealed that males were significantly different from females in entrepreneurial intention ($p < 0.01$), the attitude towards becoming an entrepreneur ($p < 0.01$), perceived behavioural control ($p < 0.01$), subjective norms ($p < 0.05$) and entrepreneurial self-efficacy ($p < 0.05$). Males had significantly higher entrepreneurial intentions, held more positive attitudes towards becoming an entrepreneur, perceived that their immediate family, friends and colleagues would approve of their decision to start a business and had significantly higher perceived behavioural control and entrepreneurial self-efficacy than their female counterparts. Males had significantly higher mean rank values for entrepreneurial intention and all the determinants of entrepreneurial intention compared to females. The results suggest that females do not view entrepreneurship as a viable career option for them and therefore do not have intentions to start their own businesses. This can be explained by the fact that they do not hold positive attitudes towards entrepreneurship, they are less confident in their ability to start a business and perceive less supportive subjective norms compared to their male

counterparts. Improved female entrepreneurial activity rates in South Africa's rural provinces necessitate increasing the percentage of female entrepreneurial intentions, making entrepreneurship an attractive career option, enhancing females' confidence in their ability to start a business and encouraging more social support for female entrepreneurship.

TABLE 2: Gender differences in entrepreneurial intention and the determinants of entrepreneurial intention

	Mean rank	p-value
Entrepreneurial intention	Male = 192.15 Female = 161.71	0.003**
Attitude towards becoming an entrepreneur	Male = 193.65 Female = 161.00	0.002**
Perceived behavioural control	Male = 193.52 Female = 161.06	0.001**
Subjective norms	Male = 186.06 Female = 164.59	0.039*
Entrepreneurial self-efficacy	Male = 186.06 Female = 164.59	0.030*

Notes: * P < .05

** P < .01

Source: Author's compilation from data analysis

6.3 The relationship between gender, entrepreneurial intention and the determinants of entrepreneurial intention

Chi-square test was used to determine whether gender is significantly related to entrepreneurial intention, the attitude towards becoming an entrepreneur, perceived behavioural control, subjective norms and entrepreneurial self-efficacy. The strength of these relationships was tested by means of the Cramer's V (V_c).

Gender had a significant relationship with

- entrepreneurial intention ($\chi^2 = 10.61$, df = 2, $p < 0.01$, $V_c = 0.176$),
- the attitude towards becoming an entrepreneur ($\chi^2 = 9.97$, df = 2, $p < 0.01$, $V_c = 0.171$),
- perceived behavioural control ($\chi^2 = 10.21$, df = 2, $p < 0.01$, $V_c = 0.173$),
- subjective norms ($\chi^2 = 5.64$, df = 2, $p < 0.10$, $V_c = 0.128$) and
- entrepreneurial self-efficacy ($\chi^2 = 6.91$, df = 2, $p < 0.05$, $V_c = 0.142$).

Given the low Cramer's V values the results suggest a very weak relationship between gender, entrepreneurial intention and the determinants of entrepreneurial intention. The findings suggest that gender matters in understanding entrepreneurial intention and the role of its antecedents. The likelihood of having high entrepreneurial intention and positive attitude towards entrepreneurship and perceiving high entrepreneurial self-efficacy, high perceived behavioural control and socially supportive subjective norms depends on gender. The results support those of the Mann-Whitney *U* test in that males have high entrepreneurial intention and positive attitude towards entrepreneurship, have high entrepreneurial self-efficacy and perceived behavioural control and perceive the prevalence of socially supportive subjective norms in their immediate environment than their female counterparts.

7. IMPLICATIONS

Entrepreneurial intention is the foundation for entrepreneurial behaviour as it precedes entrepreneurial action (Bird 1988:443-444; Douglas 2013:637; Kolvereid & Isaksen 2006:881). An understanding of the antecedents of entrepreneurial intention and the factors impacting on these antecedents is vital in improving the efforts to promote women entrepreneurship, especially in South Africa where women's total entrepreneurial activity rates are reported to be low.

The study contributes to the body of knowledge by being the first in a South African context to investigate gender differences in entrepreneurial intention using the TPB based on a sample from two rural provinces. The findings revealed that gender differences in entrepreneurial intention in these provinces can be explained by the widely established theoretical determinants of entrepreneurial intention. Male respondents differed significantly from females on entrepreneurial intention and the antecedents of entrepreneurial intention. Entrepreneurial intention and these antecedents were also significantly related to gender. While the findings have advanced the entrepreneurial intention theory, they also provided insight into the factors that influence entrepreneurial intention among males and females in the mostly rural provinces of South Africa.

Since entrepreneurial intention and its determinants and entrepreneurial activity can be positively influenced by entrepreneurship education, role models, social support and entrepreneurial support, the findings have important implications for policymakers, the society and entrepreneurship educators in terms of interventions aimed at preparing and encouraging females for entrepreneurship. More efforts should be directed at encouraging

females to pursue entrepreneurship as a viable career option. Recommendations that can help stimulate entrepreneurial intentions of females in the studied provinces are indicated below.

7.1 Implications for entrepreneurship educators and policymakers

Entrepreneurship educators and policymakers should change perceptions about entrepreneurship, foster positive entrepreneurial attitudes and stimulate the interest of females in entrepreneurship as a viable career option by emphasising the benefits of entrepreneurship. Females should be encouraged to view entrepreneurship as a career that can be successfully pursued while on the other hand fulfilling family responsibilities. Action-orientated entrepreneurship education that takes place in a supportive environment and exposure to successful female entrepreneurial role models would promote the development of entrepreneurial self-efficacy and enhance perceived behavioural control among females. Successful female entrepreneurial role models could serve as guest speakers in entrepreneurship education classes to inspire other females to engage in entrepreneurship, to impact positively on entrepreneurial attitudes and raise others' confidence in their capability to start their own businesses.

While entrepreneurial support was not the focus of this study, awareness of it can impact positively on entrepreneurial intention and its antecedents (Malebana 2014b:1025; Saeed *et al.* 2013:11) and access to it can facilitate the establishment of new ventures (Delanoë 2013:393; Zanakis *et al.* 2012:20). Entrepreneurial support can increase one's control over the entrepreneurial behaviour by reducing perceived barriers to action (Ajzen 2005:125). Global Entrepreneurship Monitor reports have consistently indicated a low level of awareness of entrepreneurial support in South Africa and more so in rural areas (Herrington *et al.* 2015:40 & 46; Herrington & Kew 2014:39). In the efforts to impact positively on the antecedents of entrepreneurial intention and to stimulate entrepreneurial intention, policymakers and entrepreneurship educators in the rural provinces should raise the awareness of entrepreneurial support programmes, including female entrepreneurship support structures.

More information should be provided using various media regarding the availability of entrepreneurial support programmes for females and the requirements for accessing these programmes. This would enhance perceived behavioural control and entrepreneurial self-efficacy among females by reducing the perceived barriers that they would possibly face when starting their own businesses.

Furthermore, South Africa does not only need females with positive entrepreneurial attitudes, high perceived behavioural control, high entrepreneurial self-efficacy and strong intentions but these intentions should result in improved female entrepreneurial activity. Researchers indicate that females are more likely than males to encounter many barriers that would prevent them from implementing their intentions (Haus *et al.* 2013:145). Awareness of and access to entrepreneurial support could lessen perceived barriers to starting new businesses among females (Santos *et al.* 2014:13). In this case entrepreneurial support programmes should target females who have intentions to start their own ventures and therefore, be accessible to facilitate the transition from intention to action that would lead to the emergence of new ventures. The more resources are available to potential female entrepreneurs to start new businesses the higher will be their perceived behavioural control and entrepreneurial self-efficacy and more so increased likelihood of starting new ventures. Therefore, access to resources is vital for females to use their acquired skills and perform the entrepreneurial behaviour adequately (Bandura 1986:395).

7.2 Implications for the society

Acknowledgement and appreciation of entrepreneurship as a viable career option in the society and celebration of successful female entrepreneurs will help create perceptions of supportive subjective norms among females. Individuals are more likely to believe that their social referents would approve of their entrepreneurial decision and support them when they start a business when these social referents value entrepreneurial activity. Prior research has shown that subjective norms have a strong impact on entrepreneurial intention of females (Karimi *et al.* 2013:209) and that the antecedents of entrepreneurial intention of females can be positively influenced by the value attached to entrepreneurship by people close to them (Santos & Liñán 2010:23). More females would perceive the social pressure to become entrepreneurs when they see other successful female entrepreneurs being celebrated and acknowledged for their contribution in the society.

8. LIMITATIONS AND FUTURE RESEARCH

The shortcomings of this study lie first, in its cross-sectional nature. It is therefore impossible to determine whether higher entrepreneurial intentions among males will translate into new ventures than lower entrepreneurial intentions among females. Longitudinal research would provide a better understanding of whether gender differences in entrepreneurial intention have varying effects on entrepreneurial activity.

Second, the findings could not be generalised to all final-year commerce students at higher education institutions in other rural provinces of South Africa, because the study used convenience samples. Future research should investigate gender differences in growth intentions of entrepreneurs over a protracted time to establish the effects of these differences on small business growth. Perceived barriers to starting a business among males and females should be investigated to shed more light on gender differences in entrepreneurial intention and entrepreneurial activity.

9. CONCLUSION

The purpose of this study was to determine gender differences in entrepreneurial intention and the determinants of entrepreneurial intention and the relationship between gender, entrepreneurial intention and the determinants of entrepreneurial intention among rural university students in the Eastern Cape and Limpopo provinces based on the TPB. The findings indicate that male students had significantly higher entrepreneurial intention, perceived behavioural control and entrepreneurial self-efficacy, positive attitudes towards entrepreneurship and perceived more supportive subjective norms than their female counterparts. The findings suggest that male respondents were more confident in their capability to start a business, their evaluation of the decision to become an entrepreneur was more favourable and strongly believed that their immediate families, friends and colleagues would approve of their decision to start a business than their female counterparts.

Gender had a significant relationship with entrepreneurial intention and its antecedents. Given that intentions (Delanoë 2013:393; Kolvereid & Isaksen 2006:881; Zhang & Yang 2006:167), enhanced perceived behavioural control (Ajzen 2005:119) and entrepreneurial self-efficacy (Bandura 1986:433; Blackford *et al.* 2008:0960) can influence the performance of the behaviour, actions that are directed at changing these antecedents and stimulating entrepreneurial intention of females are vital in order to improve the contribution of both males and females to entrepreneurial activity rates in the Eastern Cape and Limpopo provinces.

The findings support previous research regarding the use of the TPB as a valuable model for understanding entrepreneurial intention, especially for exploring gender differences in entrepreneurial intention and its determinants (do Paço *et al.* 2015:65-66; Karimi *et al.* 2013:209-210; Maes *et al.* 2014:791-792). In line with the findings of Haus *et al.* (2013:141) gender had a significant relationship with all the antecedents of entrepreneurial intention in the TPB, namely the attitude towards becoming an entrepreneur, perceived behavioural

control and subjective norms. Contrary to Gird and Bagraim (2008:721) who doubted the value of including gender in entrepreneurial intention models, this study has shown that gender is crucial in explaining differences in entrepreneurial intention in the rural provinces of South Africa. The results support previous research that had shown that males differ significantly from females in entrepreneurial intention (Santos & Liñán 2010:21-22; Santos *et al.* 2014:10; Shneor *et al.* 2013;795; Zhang *et al.* 2014:637), the attitude towards entrepreneurship, subjective norms and perceived behavioural control (Haus *et al.* 2013:141; Yordanova & Tarrazon 2010:256) and entrepreneurial self-efficacy (Díaz-García & Jiménez-Moreno 2010:270; Shneor *et al.* 2013:795; Wilson *et al.* 2007:395). The findings contradict those of Maes *et al.* (2014:790) on the relationship between gender, subjective norms and entrepreneurial intention and those of do Paço *et al.* (2015:65-66); Maes *et al.* (2014:790); Sahinidis *et al.* (2012:72); Santos and Liñán (2010:21-22) and Santos *et al.* (2014:10) on gender differences in subjective norms.

The results indicate that entrepreneurship is still a male-dominated activity. Lower scores of females on entrepreneurial intention than those of males suggest that females do not view entrepreneurship as a viable career option for them. This can be explained by the fact that females do not have favourable attitudes towards entrepreneurship, they have low perceived capability to start a business and perceive less subjective norms regarding their entrepreneurial decision. Efforts that are aimed at stimulating favourable entrepreneurial attitudes, enhancing perceived capability for starting a business and generating socially supportive norms for female entrepreneurship are vital to increase female entrepreneurial intention.

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