



South African University Students' Entrepreneurial Intention as a Correlate of Entrepreneurship Risk Perceptions and Aversion

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ABSTRACT The study was conducted to investigate the relationship between entrepreneurial intention, entrepreneurship risk perceptions and entrepreneurship risk aversion with a sample of 366 male and female university students in South Africa, using survey research design, and a structured validated questionnaire. Hypotheses were tested using Pearson correlation analysis. The results revealed that there is a significant positive relationship between entrepreneurial intention and entrepreneurship risk aversion. There is a significant positive relationship between entrepreneurship risk perceptions and aversion. However, there is no significant relationship between entrepreneurial intention and entrepreneurship risk perceptions. The findings are valuable to policy makers and professionals in promoting the spirit of entrepreneurship among the youth.

INTRODUCTION

The need to produce more university graduates that are self-reliant, business oriented, and driven by a high sense of responsibility to society and the nation at large, creates the necessity to incorporate entrepreneurship studies into the tertiary education's curriculum (Zhang et al. 2014). Despite the fact that entrepreneurship studies are now offered in some South African universities as part of the curriculum, it is evident that the practice of entrepreneurship by the youth, especially among the university students in South-Africa, is still at the infant stage (Herrington and Kew 2016).

Many previously conducted studies in the area of student entrepreneurship interest focused on the developed countries (Gnoth 2006; Guerrero et al. 2008; Sandhu et al. 2011). Specifically, only a few entrepreneurship investigations have recently been conducted in the Eastern Cape Province of South Africa (Ngorora and Mago 2018; Kanonuhwa and Chimucheka 2016). This study investigated the relationship between entrepreneurial intention, entrepreneurship risk perceptions and entrepreneurship risk

aversion among some university students in South Africa.

Entrepreneurship is a process by which a business opportunity can be perceived and evaluated (Sen et al. 2018). Entrepreneurial intention refers to the determination and eagerness of a person to undertake a new business (Amanamah et al. 2018). Entrepreneurship risk perception is defined as a decision making assessment of the risk inherent in a business venture (Boermans and Willebrands 2017), while entrepreneurial risk averse persons is described as individuals who have the tendency to feel the pain of a business loss more intensively than the pleasure of an equal-sized business gain. Allah and Nakhaie (2011) described four types of entrepreneurship risks as follows: financial risk, job risk, social and family risks.

Fedáková et al. (2018) conducted an investigation on the relationship between entrepreneurial risk perception and entrepreneurial intention using a sample of 413 employed and unemployed individuals. The findings of the study show that the two categories of respondents did not indicate serious intentions to undertake entrepreneurial activities, and they perceived quite a high level of risk related to entrepreneurship. The study's findings further reveal that the association between entrepreneurial intention and risk

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perception by unemployed was significant and negative, which indicates that the lower level of entrepreneurial intention could be affected by quite intense perception of the risk.

Contrarily the reports of the employed category indicates that the lower level of entrepreneurial intention is not related to the more intense perception of the risk. This finding could be explained by the employed being content with their work situation and feeling secure to such extent that they do not consider changing it. Similarly, Martínez et al. (2015) examined the influence of perceived risk on entrepreneurial desirability and feasibility in a sample of 376 new entrepreneurs in Mexico, and found that risk dimensions are associated with entrepreneurship perceived desirability and feasibility.

In another study, Zurriaga-carda et al. (2016) explored the effects of risk attitude, entrepreneurship education and self-efficacy on entrepreneurial intentions in a sample of 264 respondents. The results of Structure Equation Model performed in the study show that entrepreneurship education and entrepreneurial self-efficacy have a positive effect on the intention to become an entrepreneur, while risk averseness has a strong negative effect on entrepreneurial intentions. Moreover, Cramera et al.'s (2002) study of low risk aversion and its effect on the choice for entrepreneurship using the secondary type of data show that there a negative effect of risk aversion on entrepreneurship selection. Further, Herdjiono et al. (2018) investigated risk aversion, loss aversion and entrepreneurial intention with a sample of 500 students using the quantitative approach to data collection and survey research design. The results of the study show that risk averse and loss averse significantly influenced entrepreneurial intention.

Koudstaal et al. (2014) conducted a comparative study on risk, uncertainty and entrepreneurship in a sample of 2288 entrepreneurs and managers. The results of the study show that perceived risk attitude is not only correlated to risk aversion but also to loss aversion. In a related study, Saha (2018) explored identity and perception of risk for entrepreneurs with a primary survey using the snowball sampling technique. The study found that as the experience of entrepreneur increases, and she/he accesses more business associations, perception of risk is low-

ered. Alongside, the negative affect changes to positive affect with experience and exposure to business networks. In Sharma and Tarp's (2018) study titled "Does managerial personality matter?", which used the novel data from micro, small, and medium firms in Viet Nam to appraise the relationship between behavioural and personality traits of owners/managers-risk attitudes, locus of control, and innovativeness and firm-level decisions. The study's findings reveal that innovativeness and locus of control are positively correlated with revenue while risk aversion predicts lower revenue. The findings further show that risk aversion is positively correlated with the adoption of safety measures.

Objectives

The study aimed at achieving the following objectives:

- ◆ To explore the relationship between entrepreneurial intention and entrepreneurship risk perceptions
- ◆ To investigate the relationship between entrepreneurial intention and entrepreneurship risk aversion
- ◆ To examine the relationship between entrepreneurship risk perceptions and entrepreneurship risk aversion.

Hypotheses

Based on past studies reviewed, and in line with the above stated objectives, the study states the following hypothesis:

- ◆ There would be a significant relationship between entrepreneurial intention and entrepreneurship risk perceptions.
- ◆ There would be a significant relationship between entrepreneurial intention and entrepreneurship risk aversion
- ◆ There would be a significant relationship between entrepreneurship risk perceptions and entrepreneurship risk aversion.

MATERIAL AND METHODS

Research Design, Sample and Procedure

The study adopted Correlational research design to examine the relationships among the

three variables. The study's methodology was built on the principle of the positivist approach, by means of quantitative data generation and hypothesis testing (Bhattacharjee 2012). The Raosoft software which was used in calculating the sample size was considered appropriate for the study because it is survey software that is mostly applicable in determining how many people to engage in survey research in order to get results that reflect the target population as precisely as needed.

Further, the Raosoft software was chosen for the study because it also makes provision for the confidence interval (margin of error) and confidence level of the calculated and recommended sample size, based on the available population size. The available population of the study was approximately 4000. In view of this, Raosoft, however, calculated and recommended 351 (confidence interval = 5%, confidence level = 95%) as the appropriate sample size for the study. Hence, the researchers were 95 percent confident of the population sampled being a true representation of the study's targeted population. Eventually, a total of 366 male and female final year undergraduate and honours level postgraduate university students constituted the sample size of the study.

Moreover, the study adopted the purposive and convenience types of the non-probability sampling method to select participants for the study. During the first stage of the selection process, the convenience sampling method was used in selecting the University of Fort Hare out of the three universities in the Eastern Cape Province of South-Africa, as the site of the fieldwork. The University of Fort Hare was chosen because the institution is categorised by the Department of Higher Education as one of the historically disadvantaged institutions in the country. Although the University of Fort Hare's student population comprises international and national students, the institution is regarded as a less economically privileged institution. Hence, it was presumed that the institutional curricula would have been negatively affected by related situational factors, which could predispose students to barriers to entrepreneurial interest.

Another reason for applying the convenience sampling technique is that it was easier for the researchers to reach the research partic-

ipants at the University of Fort Hare than engaging those in the other universities in the country. This is because the researchers are more familiar with the University of Fort Hare's campuses. The fieldwork was scheduled for the end of the academic year, a time when it was difficult to obtain the ethical approval of management of other universities due to the said busy schedule. The fieldwork thus became easier when the convenience sampling technique was applied as a strategy to meet the research participants in the lecture-rooms, student centre, campus student residences and other relaxation places like the sport pavilion and under the shields around the campus premises.

Since the study was designed only for the final year undergraduate and postgraduate honours students, the purposive sampling technique was also introduced and applied to ensure that participants in the study were in the aforementioned academic/study level during the period of the fieldwork, and that they were registered students at the University of Fort Hare. The sample comprised 205 (56%) male and 161 (46%) female university students. Ninety-nine (27%) were final year undergraduate students and 267 (73%) were postgraduate honours students. The research participants' ages ranged from 18 years old – minimum (0.8%) to 55 years old – maximum (0.3%), mean (27.01) and standard deviation (5.73). The majority of the participants were 22 years old (18.8%).

Data were collected by means of paper-pencil inventories (structured validated questionnaires), which were distributed to research participants in the lecture-rooms during the week and in the halls of residence, student centre and sport pavilion during the weekend, within the Alice Campus of the University of Fort Hare. The participants' voluntary participation was obtained through the informed consent form, which each of the participants needed to sign. The participants were informed about the importance of the study as the findings from the study may positively influence the government policy in reviewing South African higher education curricula to cater for innovative and practical entrepreneurship education in the universities. Moreover, assurance was given to the participants in respect of confidentiality of all information they supplied.

The participants were instructed not to indicate any means of identification such as name and student identity number. With the utmost sense of sincerity, information concerning the study and its outcomes were accurately submitted to the appropriate institutions. Thus, it was ensured that no instance of misleading actions was demonstrated in the course of the study. The researchers also ensured that the study was conducted in a conducive environment that would not expose the participants to any physical or psychological hazard. The Institutional Research Ethics Committee granted approval for ethical clearance of the study.

Three validated scales of measurement were used to assess entrepreneurial interest, entrepreneurship inexperience, and financial constraints, while year of study was measured as a demographic variable with discrete data.

Entrepreneurial Intention

A 6-item scale of entrepreneurial intention that was developed and validated by Liñán and Chen (2009) was used to measure entrepreneurial interest. The construct consisted of three different kinds of intention measures – desire, self-prediction and behavioural intention, with a 5-point Likert-type of response format ranging from 1(Strongly disagree) to 5(Strongly agree). Liñán and Chen (2009) reported a Cronbach's alpha coefficient score of 0.94 for the scale, while the present study yielded a Cronbach's alpha coefficient score of 0.95 for the scale of entrepreneurial interest.

Entrepreneurship Risk Perceptions

A 4-item scale of entrepreneurship risk perceptions that was developed and validated by Keh et al. (2002) was applied to measure entrepreneurship risk perceptions. The scale was designed with a 5-point Likert-type response format ranging from 1(Strongly disagree) to 5(Strongly agree). Keh et al. (2002) reported a Cronbach's Alpha coefficient score of 0.79 for the scale. While the present study yielded a Cronbach's Alpha coefficient score of 0.74 for the scale of entrepreneurship risk perceptions.

Entrepreneurship Risk Aversion

A 4-item scale of entrepreneurship risk aversion that was developed and validated by Zurriaga-carda et al. (2016) was applied to measure entrepreneurship risk aversion. The scale was designed with a 5-point Likert-type response format ranging from 1(Strongly disagree) to 5(Strongly agree). Zurriaga-carda et al. (2016) reported a Cronbach's Alpha coefficient score of 0.75 for the scale. While the present study yielded a Cronbach's Alpha coefficient score of 0.79 for the scale of entrepreneurship risk aversion.

The data generated from 366 screened questionnaires were analyzed based on the hypotheses stated, using version 25 of the Statistical Package for the Social Sciences (SPSS). The hypotheses was tested using Pearson correlation analysis.

RESULTS

The results presented in the table (see Appendix), show that there is no significant relationship between entrepreneurial intention and entrepreneurship risk perceptions, $r = -0.015$, $p > 0.05$. Based on the results, and its interpretation, hypothesis 1 is rejected. However, the results show that there is a significant positive relationship between entrepreneurial intention and entrepreneurship risk aversion, $r = 0.146$, $p < 0.05$. The level of the observed positive relationship between the two aforementioned variables is strong, considering the obtained significance value of 0.005. This implies that there is a solid relationship between entrepreneurial intention and entrepreneurship risk aversion. Based on the above results, and its interpretations, hypothesis 2 is accepted.

Moreover, the results show that there is a significant positive relationship between entrepreneurship risk perceptions and aversion, $r = 0.233$, $p < 0.01$. The level of the observed positive relationship between the two aforementioned variables is very strong, considering the obtained significance value of 0.000. This implies that there is a perfect relationship between entrepreneurship risk perceptions and aversion. Based on the above results, and interpretations, hypothesis 3 is accepted.

DISCUSSION

The above presented and interpreted results confirmed the hypothesized relationship between entrepreneurial intention and entrepreneurship risk aversion; and between entrepreneurship risk perceptions and aversion. Specifically, the results of hypothesis 1 show that there is no significant relationship between entrepreneurial intention and entrepreneurship risk perceptions. The results implies that entrepreneurship risk perceptions is not a significant barrier factor to entrepreneurial intention. The present finding is partly in line with the findings in the investigation of entrepreneurial risk perception and entrepreneurial intention of a sample of 413 employed and unemployed individuals, which was conducted by Fedáková et al. (2018). The results of the study show that the two categories of respondents did not indicate serious intentions to undertake entrepreneurial activities, and they perceived quite a high level of risk related to entrepreneurship.

The study's findings further show that the association between entrepreneurial intention and risk perception by unemployed was significant and negative, which indicates that the lower level of entrepreneurial intention could be affected by quite intense perception of the risk. Contrary were the reports of employed, which indicates that the lower level of entrepreneurial intention is not related to the more intense perception of the risk. This finding could be explained by the employed being content with their work situation and feeling secure to such extent that they do not consider changing it. However, Martínez et al. (2015) reported in their study of the influence of perceived risk on entrepreneurial desirability and feasibility in a sample of 376 new entrepreneurs in Mexico, that risk dimensions are associated with entrepreneurship perceived desirability and feasibility.

Meanwhile, the results of hypothesis 2 show that there is a significant positive relationship between entrepreneurial intention and entrepreneurship risk aversion. The results implies that entrepreneurship risk aversion is significantly positively related to entrepreneurial intention. One important knowledge that was derived from the results is the fact that university students are willing and desired to become entrepreneurs

in the future. However, despite their interest, students considered their desires of becoming entrepreneurs as not realistic, because of the prevalence of certain personal problems, which seems difficult for them to overcome, consequently, turn into barriers to redeeming their interest in entrepreneurship. Specifically, the present results have revealed that there is a moderate level of positive relationship between entrepreneurial intention and entrepreneurship risk aversion. The results are interpreted as there is a presence of fear of losing investments or resources among some university students with regard to their intention in business ventures. Although, the relationship observed is not strong, yet entrepreneurship risk aversion is moderately related entrepreneurial intention.

The present findings corroborate the findings of Zurriaga-carda et al. (2016), which explored the effects of risk attitude, entrepreneurship education and self-efficacy on entrepreneurial intentions in a sample of 264 respondents. The results of Structure Equation Model that was performed in the study show that entrepreneurship education and entrepreneurial self-efficacy have a positive effect on the intention to become an entrepreneur, whilst risk averseness has a strong negative effect on entrepreneurial intentions. Moreover, Herdjiono at al. (2018) investigated risk aversion, loss aversion and entrepreneurial intention with a sample of 500 students using the quantitative approach to data collection and survey research design. The results of the study show that risk averse and loss averse significantly influenced entrepreneurial intention.

Furthermore, the results of hypothesis 3 indicate that there is a significant positive relationship between entrepreneurship risk perceptions and aversion. The results imply that entrepreneurship risk perceptions and aversion are related. In other words, both phenomena are existing, and the research participants understood that the prevalence of both could hinder the process of actualizing their dreams of becoming successful entrepreneurs. Koudstaal et al. (2014) study confirmed that perceived risk attitude is not only correlated to risk aversion but also to loss aversion. Likewise, in a related study by Sharma and Tarp (2018), it was confirmed that

innovativeness and locus of control are positively correlated with revenue while risk aversion predicts lower revenue. The findings further show that risk aversion is positively correlated with the adoption of safety measures.

CONCLUSION

The study makes the following conclusions:

- ♦ Entrepreneurship risk perceptions is not significantly related to entrepreneurial intention.
- ♦ Entrepreneurship risk aversion is moderately and positively related to entrepreneurial intention.
- ♦ Entrepreneurship risk perceptions and aversion are positively and significantly related.

RECOMMENDATIONS

In view of the above discussion and conclusions, the researchers offer the following practical recommendations:

The tertiary education system of South Africa should consider providing a holistic education to the higher institution students, such that will realistically groom the youth, shape their personality and modify their psyche towards thinking 'outside the box'. This is necessary because it will assist in producing business minded-graduates who are economically driven and self-reliant, as the era of mainly theoretical-based education is wearing off while global education is now designed more for innovation, creativity, and problem-solving.

Moreover, the present study's findings have revealed that the South African socio-cultural environment is not business inclined. Consequently, not many South African graduates have business mentors, advisors, role models or supporters in their immediate socio-environment that could attract their admiration and create a strong and lasting impression of "I can also become a chief executive officer of my legitimate private business". The few available influential people of such calibre are the foreigners among whom many are already victims or potential victims of Xenophobic attacks, and therefore, afraid of forming an intimate relationship with the locals. In view of the above, the present study strongly recommends that the government should by all means create a more conducive, enabling and

supportive business-friendly environment to the youth, especially the university students.

Furthermore, the tertiary institution students should rather consider themselves as agents of economic transformation, and wake up from their slumbering and irrational thought that every graduate must be provided a job. The university students should start to think of themselves as potential job givers, job creators and employers, not job seekers.

Lastly, all stakeholders, including the Non-governmental organisations, government, educators, parents and students should collaborate efforts in ensuring that the economic potentials of the youth population of South Africa are gainfully concerted to actual entrepreneurial practices.

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APPENDIX

Table 1: A summary table of Pearson Correlation Analysis showing the relationship between entrepreneurial intention, entrepreneurship risk perceptions and aversion

<i>Variable</i>		<i>EI</i>	<i>ERP</i>	<i>ERA</i>
Entrepreneurial Intention (EI)		1	-.015	.146**
	sig. (2-tailed)		.774	.005
	n	366	366	366
Entrepreneurship Risk Perceptions (ERP)		-.015	1	.233**
	sig. (2-tailed)	.774		.000
	n	366	366	366
Entrepreneurship Risk Aversion (ERA)		.146**	.233**	1
	sig. (2-tailed)	.005	.000	
	n	366	366	366

** Correlation is significant at the 0.01 level (2-tailed).