

Intention to pursue a career in entrepreneurship: The role of risk aversion and proactive personality

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Abstract

Although personal characteristics have the potential to stimulate the pursuit of entrepreneurial career, not all of them facilitate entrepreneurial career. An individual may have numerous characteristics but not all may predispose him to pursue a career in entrepreneurship. Drawing on the theory of person-environment fit, the study contends that while risk aversion would be associated with decreased intention to pursue a career in entrepreneurship, proactive personality would be associated with greater intention to pursue it; and that the proactive personality would attenuate the negative relationship between risk aversion and entrepreneurial intentions. The study employed 200 undergraduates pursuing various business administration courses in a Ghanaian public. The results showed that risk aversion relates negatively to entrepreneurial intentions, proactive personality relates positively to entrepreneurial intentions; and risk aversion related significantly and negatively to entrepreneurial intentions for less proactive, but insignificantly for highly proactive individuals. The results showed that it is possible for a risk averse individual, who is proactive to venture into business and succeed because his/her Proactiveness would enable him/her to anticipate, network, forecast and prepare for the challenges in the business environment, leading to the successful navigation and effective management of challenges that characterized entrepreneurship.

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Introduction

Increasing levels of global unemployment make a career in entrepreneurship a worthwhile path for contemporary undergraduate students. Unemployment is a global challenge, as estimates show that it takes the young graduate approximately two years to get a decent job after graduation (Institute of Statistics, Social and Economic Research, 2017). Entrepreneurship is a strategic way by which jobs are created and innovations become a reality. Specifically, through entrepreneurship, young people have realized their career aspirations and contributed significantly to the socio-economic development of countries (Barringer and Ireland, 2018; Desai et al., 2020; Scarborough and Cornwell 2016). Worldwide entrepreneurs are making a difference through job creation, poverty reduction and societal welfare gains amongst others and have become the cornerstone of socio-economic development (Desai et al., 2020). While several studies on entrepreneurial intentions and entrepreneurship in general exist in the western context (Camelo-Ordaz et al., 2016; Espiritu-Olmos & Sastre-Castillo, 2015; Hsu et al., 2017; Nowinski & Haddoub, 2019), the African perspective on entrepreneurship is surging (cf. Amofah et al., 2020; Masilela et al., 2020; Neneh, 2019; Vuuren et al., 2018). The present study focuses on entrepreneurial intentions because the enterprising individual starts his/her entrepreneurial journey with an intention; and intentions have been associated with actual behavior (Ajzen, 1991).

This present study takes an individual difference perspective, arguing that while some trait-based variables may facilitate entrepreneurial intentions, others may inhibit such intentions. For example, while proactive personality facilitates entrepreneurial intentions (Delle & Ibrahim, 2014; Neneh, 2019), risk aversion relates negatively to such intentions (Rosique-Blasco et al., 2018). Studies on the interactive effect of proactive personality and risk aversion are dearth in the entrepreneurship literature. Consequently, this present study aims to study the extent to which the negative relationship between risk aversion and entrepreneurial intentions is buffered by proactive personality.

The entrepreneurial environment is dynamic, uncertain, and risky (Neneh, 2019; Shinnar et al., 2018; Shirokova et al., 2016; Van Gelderen et al., 2015), therefore, may not be suitable for every individual. Individuals with proactive tendencies are capable of pursuing a successful career in an uncertain environment because they are change oriented, self-starters, future focus, and persevere to achieve their career goals (Parker et al., 2010). Conversely, risk averse individuals are less tolerant of risk, and therefore, would prefer to pursue a career in a non-risky environment (Rosique-Blasco et al., 2018). Consequently, the entrepreneurial environment may not be appropriate for risk averse individuals. This thinking is consistent with the theoretical framework adopted for this study - the person-environment theory (Dawis, 2002; Edwards et al., 2006). Drawing on the person-environment fit theory, we posit that compared to risk averse individuals, personality individuals are more likely to pursue a career in entrepreneurship, and that the negative relationship between risk aversion and entrepreneurial intentions would

be attenuated under conditions of high proactive personality, but would be significant and negative under conditions of low proactive personality (Dawis, 2002; Edwards et al., 2006).

Our study focuses on the Ghanaian society for two reasons. First, the increasing levels of unemployment, and second, the number of years it takes a graduate to get a secure job. Specifically, estimates show that approximately 10% of Ghanaian graduates get a job a year after school, and the majority obtain secure jobs approximately ten years later (Institute of Statistics, Social and Economic Research, ISSER, June 3, 2017). Similarly, graduate unemployment rate has risen from 14.7% in 1987 to 40% in 2011 (Baah-Boateng, 2015; Zakaria et al., 2014), an indication that governments and other stakeholders in the job creation space cannot absorb the increasing numbers of graduates from the universities. Taking an individual difference perspective, the present study examines how risk aversion and proactive personality might interact to predict entrepreneurial intentions among undergraduate students in a large public university in Ghana. Our study makes two important contributions to the entrepreneurial intentions literature. First, by responding to calls for more studies on entrepreneurship in the African context (Byabashaija & Katono, 2011; Walsh, 2015; Kolk, & Rivera-Santos, 2018; Zoogah et al., 2015; Kolk, & Rivera-Santos 2018), we examine the differential effect of risk aversion and proactive personality on entrepreneurial intentions among undergraduate students in the Ghanaian context. By testing this, we seek to answer the question that not all personality variables might facilitate business creation intentions. Finally, the study contributes to existing literature by suggesting that proactive personality is an important boundary variable determining relationship between personal characteristics, individual behavior, attitudes and abilities (Li et al., 2011; Wang et al., 2014). We do this by demonstrating, empirically, that because the entrepreneurial environment is suitable for proactive individuals, under low levels of proactive personality, risk aversion would relate negatively and strongly to intentions to pursue a career in entrepreneurship, but would relate insignificantly to such intentions under conditions of high proactive personality (Dawis, 2002; Edwards et al., 2006; Parker et al., 2010)

Literature and Hypotheses Development

Risk aversion and entrepreneurial intentions

Entrepreneurs transform innovations by utilizing opportunities that come their way (McGuire, 2003); and contribute substantially to economic growth and prosperity by creating decent jobs, designing and introducing new products and services (Garcia, 2005; Schramm, 2004; Shane & Venkataraman, 2000). Entrepreneurship starts with an intention, and intention is an important antecedent of entrepreneurial behavior (Prabhu et al., 2012). Specifically, Krueger and Carsrud (1993) contend that entrepreneurial intention is the “single best predictor” of subsequent entrepreneurial behavior. Consistent with this, Prabhu and colleagues (2012) suggested that thinking is a valuable predictor

of future behavior. On the relevance of intentions as a driver of future entrepreneurial behavior, Ajzen (1991) noted: “*Intentions* are assumed to capture the motivational factors that influence a behavior; they are indications of how hard people are willing to try, of how hard people are willing to try, of how much of an effort they are planning to exert to perform the behavior. Generally, the stronger the intention to engage in a behavior, the more likely should be its performance” (p. 181).

Consequently, entrepreneurial intentions represent a purpose-driven activity comprising the exploration and identification of business relevant information in order to help realize the goal of venture creation (Katz & Gartner, 1988). Risk and uncertainty are inherent part of entrepreneurial career (Holmes et al., 2008), and research shows that entrepreneurs rather than non-entrepreneurs are more likely to take risk (Amit & Muller, 1993). Risk taking is an inevitable part of business, as entrepreneurship goes beyond opportunity identification and exploitation to include managing unpredictable business trajectories and contexts (Shane, Locke, & Collins, 2003; Tolentino, Sedoglavich, Lu, et al., 2014). In this regard, risk averse individuals may be less interested in entrepreneurship. In this study, we test risk aversion as a predictor of entrepreneurial intentions.

Risk aversion represents an individual's inclination to engage in a riskless activity with an assured result over a probabilistic one with an equal expected value (Qualls & Puto, 1989, p. 180). Accordingly, expected utility theory contends that risk averse people prefer a riskless career (Fischer et al., 1986; Miller, 1975). Further, people tend to do work well in an environment or context that align with their disposition (Dawis, 2002; Edwards et al., 2006). The entrepreneurial environment, which is characterized by risk, dynamism, and uncertainty, may not be suitable for a risk averse individual, and thus, such individuals may have reduced interest to pursue a career in entrepreneurship. For example, Rosique-Blasco and colleagues (2018), in a survey involving 1126 students from the Technical University of Cartagena, found that risk aversion relates negatively to entrepreneurial intentions. Further, Koudstaal et al. (2016) in a large field laboratory experiment investigating differences in risk aversion among entrepreneurs, managers, and employees found that while entrepreneurs are less risk averse than managers, managers were also less risk averse than employees. Because risk averse individuals prefer to engage in low risk behaviors, they may be less interested in pursuing a career in entrepreneurship. Similarly, a recent study involving students drawn from Uganda ($n = 289$) and Germany ($n = 284$) showed that risk aversion relates significantly and negatively to entrepreneurial intentions and entrepreneurial attitude, and that, the link between risk aversion and entrepreneurial intentions was significantly moderated by entrepreneurial attitude (Baluku et al., 2021). Drawing on the person-environment fit theory, we hypothesize that:

Hypothesis 1: Risk aversion relates negatively to entrepreneurial intentions

The buffering role of proactive personality

In this study, we test proactive personality as a predictor and a moderator. Literature shows that personality variables have the potential to stimulate entrepreneurial intentions (cf. Neneh, 2019; Jayavelu, 2017; Delle & Amadu, 2014). Following previous studies, the study specifically examines relations between proactive personality and entrepreneurial intentions, and second, we examine the condition under which proactive personality would buffer the negative effect of risk aversion on entrepreneurial intentions. Proactive personality is characterized as a behavioral inclination toward taking personal initiative and creating a favourable work setting (Bateman & Crant, 1993; Crant, 2000). In the context of work or business, people with proactive tendencies help to change work procedures and content, alter or seek better ways of achieving work tasks, and engage effectively in business management activities (Bateman & Crant, 1993; Thompson, 2005).

Empirical studies in the African context show that trait-based variables might influence entrepreneurial intentions. For example, Neneh (2019) in a two-wave longitudinal study involving 277 students in a South African university, found that proactive personality relates positively to entrepreneurial intentions; and similarly, Delle and Amadu (2014) found that proactive personality related to increased entrepreneurial intentions among undergraduate students in a Ghanaian university. Drawing on these African-based evidence, we hypothesize that:

Hypothesis 2: Proactive personality relates positively to entrepreneurial intentions

Risk-taking is a critical aspect of entrepreneurship (cf. Ray, 1994; Shepherd et al., 2019). Therefore, risk aversion might be associated with reduced entrepreneurial intentions. However, some individual difference variables could influence the way risk averse individuals respond to intentions to venture into entrepreneurial career. In this study, we suggest proactive personality as an important boundary variable that might attenuate the negative effect of risk aversion on entrepreneurial intentions. Proactive individuals are creative (Seibert et al., 2001), they are not easily affected by challenges in the environment (Fuller et al., 2006); and they pursue, persevere, and achieve their goals despite challenges (Parker et al., 2010). Consequently, compared to their less proactive counterparts, proactive individuals make things happen in the environment, as they initiate steps to achieve their goals (Neneh, 2019; Parker et al., 2010). Further, proactive individuals believe that they can succeed by shaping their environment rather than allow the environment to shape them (Bakker et al., 2012), and with this belief, they are able to overcome challenges in the environment (Bateman & Crant, 1993; Fuller et al., 2006). Furthermore, an individuals' level of proactivity potentially determines what behavior the individual exhibits. For example, individuals who are characterized as highly proactive show behaviors including initiative taking, manipulation of the environment, and persistent goal pursuit, while their less proactive counterparts operate in a waiting

mode and tend to react passively to changes in the environment (Bateman & Crant, 1993). Proactive people make things happen (Parker & Bindl, 2017) because they are more inclined to enact changes in their environment, enthusiastically solve problems, and pursue opportunities that allow advancement of their interest and careers (Allen et al., 2005). In addition, researchers suggest that proactive personality is an important boundary variable, as it determines the effect of personal characteristics on employee behavior, attitudes, and abilities in work or business context (Li et al., 2011; Wang et al., 2014). Drawing on these studies, we hypothesize that:

Hypothesis 3: Proactive personality moderates the negative relationship between risk aversion and entrepreneurial intentions such that the relationship is stronger under condition of low rather than high proactive personality.

Methods

Research design and approach

We employed a quantitative research approach to investigate the extent to which proactive personality moderates the relationship between risk aversion and entrepreneurial intentions in among undergraduate students in a Ghanaian public university. As our study sought to provide explanations between variables as well as test the extent to which a moderation effect exists using an inferential statistics approach, such as path analysis and confirmatory factor analysis, we found the quantitative approach appropriate. Further, we utilized standardized scales to collect numeric data on our main variables: risk aversion, proactive personality and entrepreneurial intentions, which were processed to test our hypothesized relationships. Consistent with our research approach, we adopted a correlational research design to examine relationships. This design allows us to provide explanation to our hypothesized relationships with no attempt at drawing cause-effect relationship.

Sample and procedure

The study involved undergraduate students ($N = 200$) pursuing various business programs in a Ghanaian public university, who voluntarily agreed to complete a paper-based survey measuring risk aversion, proactive personality and entrepreneurial intentions. The participants were selected via a convenience sampling approach. This approach allowed us to administer the survey to students who were available on campus at the time of data collection, and who were willing and interested in participating in the study. The survey was distributed by the researchers. Data were collected within three-months, from the month of February to May, 2020. The survey was anonymous and confidential, and participants could withdraw from the study at any time without a consequence. Furthermore, participants were not given any form of compensation for completing

the surveys. Instructions for completing the survey were clearly explained on the first page of the questionnaire. For example, participants were instructed to complete the survey independently, and to put the completed survey in the envelopes provided by the researchers, seal and sign across before submitting.

The sample involved 53% male, and the mean age of the participants was 22.21 years ($SD = 2.05$). Of the participants, 49% were in their final year, 22% were in the third year, 20% in the second year, and 9% in the first year of their studies.

Measures

Entrepreneurial intentions. We used a 9-item scale to measure entrepreneurial intentions (Linan & Chen, 2006). A sample item includes, “Among my various career options, I would rather be an entrepreneur”. Participants answered the questions using a 5-point Likert response style, with responses ranging from 1 = strongly disagree to 5 = strongly agree. We performed reliability and confirmatory factor analysis to assess the psychometric relevance of the entrepreneurial intentions scale in the Ghanaian context. Results of reliability analysis showed that the scale was appropriate for statistical analysis ($\alpha = .93$). Confirmatory factor analysis results showed that all the 9-items loaded significantly to the latent construct (i.e., entrepreneurial intentions), and the fit indices showed that together all the items validly measure entrepreneurial intentions in the Ghanaian context, $\chi^2 = 61.31$, $df = 25$, $TLI = .95$; $CFI = .97$; $RMSEA = .09$.

Risk aversion. We measured risk aversion by the 6-item General Risk Aversion Scale (Mandrik & Bao, 2005). Participants responded on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). Internal consistency results for the 6-items showed a very poor reliability value ($\alpha = .46$), however, when the item “I do not feel comfortable about taking chances” was removed, the reliability coefficient improved significantly to ($\alpha = .74$). Confirmatory factor analysis results also showed that all the CFA results suggest a fit construct, $\chi^2 = 8.90$, $df = 4$, $TLI = .92$; $CFI = .98$; $RMSEA = .08$.

Proactive personality. This was measured using Seibert, Crant and Kraimer (1999) 10-item proactive personality questionnaire. The responses were made on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). A sample item includes, “I am constantly on the lookout for new ways to improve my life.” Cronbach alpha was .84. CFA results showed a fit construct, $\chi^2 = 74.46$, $df = 31$, $TLI = .89$; $CFI = .93$; $RMSEA = .08$. Significant research evidence exists to address the issue of using different scales to measure different variables within the context of a particular study (Dawes, 2008; Tims et al., 2015). For instance, Dawes (2008: 75) has opined that there is “no appreciable differences in terms of standard variation, skewness or kurtosis when using 5, 7 and 10 scale formats”. Consequently, this study does not suffer any flaws from adopting both scales.

Analysis

We employed the Statistical Product and Service Solution (SPSS) and AMOS version 26 for IBM to facilitate the data analysis in the study. The SPSS was used to perform preliminary analysis, such as descriptive statistics (e.g., means, standard deviation, etc.), bivariate correlation via the Pearson Product-Moment correlation, and reliability analysis for the main study variables. Results for reliability analysis revealed acceptable reliability values for all the variables (see Table for reliability coefficients for each variable). We also performed confirmatory factor analysis to determine the validity of the constructs as well as the appropriateness of items loading unto each construct. As shown under measures, the confirmatory factor analysis results confirmed the validity of all the scales employed to assess the main variables. To test the hypotheses, we employed the path analysis test, which allowed us to assess not only the significance of our hypotheses at the 0.05 level of significance, but to also assess the significance of the models. Specifically, through path analysis, we assessed the fitness of our two models: direct and indirect effect, and both models were found to appropriately fit the data well. The AMOS software was used to facilitate the hypothesis testing in the study.

Ethics

We ensured that our study adhered to critical ethical principles. First, the ethical aspects of the research were approved by the Research and Consultancy Centre of the University. Second, we ensured anonymity and confidentiality of participants. To assure them of anonymity, participants were instructed to not write their names or initials on the survey packet, this, was strictly adhered to by all the participants. With respect to confidentiality, we provided envelopes, and participants were instructed to put their completed survey into the envelop, seal and sign across before submitting the completed survey to their class representatives, to the general office of the Faculty of Management of the University or directly to the office of a member of the research team in the university. Furthermore, the responses of participants were aggregated for statistical analysis, which enabled us to draw broad conclusions. Consequently, the results were not personalized. Participation in the study was voluntary, and the completion of the survey was an indication of consent. Instructions were provided to guide participants to complete the survey without a difficulty.

Results

Preliminary analysis

Table 1 presents descriptive statistics and Cronbach alphas of the main study variables, and bivariate correlation showing relations between variables. The Cronbach alpha values of all our variables were above the acceptable threshold of 0.7 (Nunnally & Bernstein, 1994), and confirmatory factor analysis shows that all the items measuring

proactive personality, risk aversion, and entrepreneurial intentions loaded significantly (Factor loading; $p < .001$). Prior to testing the hypothesis, we assessed the fitness of our measurement model.

Table 1: Descriptive statistics, bivariate correlation, and internal consistency results of study variables

Variables		M	SD	1	2	3	4	5
1.	Gender	1.48	0.50	-				
2.	Age	22.21	2.05	-0.06	-			
3.	Risk aversion	4.88	1.00	0.11	0.03	(0.74)		
4.	Proactive personality	4.00	0.51	-0.06	0.10	0.06	(0.84)	
5.	Proactive personality x risk aversion	4.01	0.79	0.03	0.06	-0.11	0.49**	(0.93)

Notes:
*** $p < .01$; Internal consistency results in parenthesis.

Assessment of measurement model

We employed confirmatory factor analysis (CFA) to assess the fitness of our measurement model. Fit indices such as the chi square, root mean square root approximation, Tucker-Lewis index, and comparative fit index were used to determine the fitness and appropriateness of our models. We compared a one-factor model (model 1), all the items measuring risk aversion, entrepreneurial intentions, and proactive personality were loaded onto a single latent factor to a three-factor model (model 2), where the items loaded onto their respective latent constructs. As showed in **Table 2**, the three-factor model (model 2) was superior to the one-factor model (model 1), confirming discriminant validity. Also, all the items for each measured variable loaded significantly ($p < .001$), showing that each measure was valid.

Table 2: Confirmatory Factor Analysis of Model Comparison

Models	χ^2	Df	CFI	TLI	RMSEA
One factor model (model 1)	1014.26	252	0.63	0.56	0.12
Three factor model (model 2)	542.22	249	0.86	0.83	0.08

Notes:
df = degree of freedom, CFI = comparative fit index, TLI = Tuckey Lewis index, RMSEA = Root Mean Square root approximation. All χ^2 are statistically significant at $p < .001$

Hypotheses testing

We employed path analysis to test our hypothesis, where main effects and interactive effect models were tested. The SPSS AMOS version 24 was used to facilitate the analysis. Direct (model 1) and interactive effect (model 2) models were examined in the study. Both direct ($\chi^2 = 7.41$, $df = 5$, $p = .192$; CFA = .96, TLI = .92, RMSEA = .05) and interactive effects ($\chi^2 = 9.06$, $df = 7$, $p = .249$; CFA = .97, TLI = .93, RMSEA = .04) fit the data well. Three hypotheses were tested. Two of those hypotheses sought to test the main effect of risk aversion and proactive personality, respectively on entrepreneurial intentions, while the third hypothesis sought to assess the interactive effect of risk aversion and proactive personality on entrepreneurial intentions. Table 3 depicts the result emerging from the hypothesized relationships we tested in the study.

Main effects

After controlling for the effect of gender and age, the path analysis result showed that risk aversion related significantly and negatively to entrepreneurial intentions, as hypothesized, $\beta = -.15$, $p = .010$. Therefore, the results supported hypothesis 1. Also, the result showed that proactive personality significantly and positively related to entrepreneurial intentions, $\beta = .51$, $p < .001$, supporting hypothesis 2.

Table 3: Unstandardized effects of proactive personality and risk aversion on entrepreneurial intentions

Variables	Model 1		Model 2	
	Estimates	SE	Estimates	SE
Gender	0.18	0.12	0.19	0.12
Age	0.01	0.03	0.01	0.03
Proactive personality	0.51***	0.06	0.51***	0.06
Risk aversion	-0.15*	0.06	-0.15*	0.06
Proactivity x Risk Aversion	-	-	0.11*	0.05

Note

*** $p < .001$, * $p < .05$

Interactive/moderation effect

The result of path analysis indicated that proactive personality significantly moderated the relationship between risk aversion and entrepreneurial intentions, $\beta = .11$, $p < .040$, supporting hypothesis 3. To determine the level of the moderator (i.e., proactive personality) at which risk aversion relates significantly to entrepreneurial intentions, we performed slope analysis, generating interactive graph using the +1/-1 SD of the

moderator (i.e., proactive personality) method (Aikens & West, 1991). As shown in **Figure 1**, risk aversion related negatively to entrepreneurial intentions for individual's low on proactive personality, $\beta = -.25, p < .001$, but not significant association between risk aversion and entrepreneurial intention at high levels of proactive personality, $\beta = -.04, p = .541$. Thus, proactive personality buffered the negative effect of risk aversion on entrepreneurial intentions.

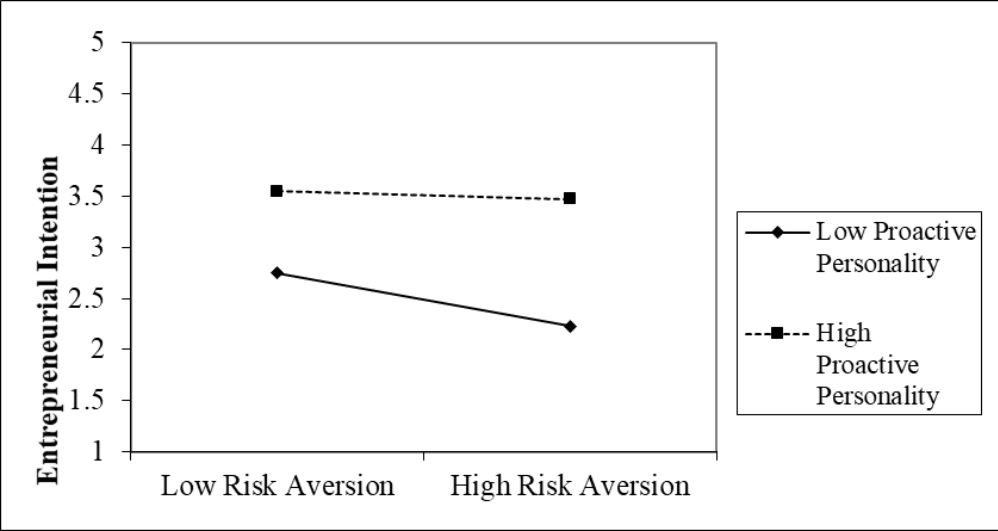


Figure 1: Proactive personality moderates the risk aversion-entrepreneurial intentions relationship

Discussion

Entrepreneurs operate in a dynamic and challenging business environment. Therefore, possessing the attributes that make enterprising individual fit well into the entrepreneurial environment is critical for success. Generally, the findings are consistent with the person-environment fit theory (Dawis, 2002; Edwards et al., 2006), as the results appeared to suggest that while risk averse individuals may have decreased intention to pursue a career in entrepreneurship, proactive individuals are more likely to have greater intention to pursue it. Secondly, under conditions of low proactive personality, the negative relationship between risk aversion and entrepreneurial intention was strong and negative, but under conditions of high proactive personality, the relationship was insignificant. We present the theoretical and practical contributions of our study in the preceding section.

Theoretical contribution

The results of the study have important theoretical implications because they contribute to the entrepreneurial intentions literature in a number of ways. First, there are consistent with previous studies (Koudstaal et al., 2016; Rosique-Blasco et al., 2018) because

the study found that risk aversion relates negatively to entrepreneurial intentions. While collaborating with prior studies conducted in different contexts, the study also confirms the theoretical position that individuals succeed in environments to which their traits align (Dawis 2002; Edwards et al., 2006). Therefore, we reason that because the entrepreneurial environment is uncertain, risk averse individuals would not want to pursue an entrepreneurial career.

Further, this study has confirmed that proactive personality is associated with greater intention to pursue a career in entrepreneurship and this confirms prior studies (Delle & Ibrahim, 2015; Neneh, 2019). Following the person-environment fit theory (Dawis, 2002; Edwards et al., 2006), the study confirms that undergraduate students who are proactive would have greater intention to pursue a career in entrepreneurship because they are active initiators of change-oriented ideas; they make things happen in the environment and they are capable of strategically navigating a dynamic, uncertain, and risky environment, such as the entrepreneurial setting (Parker et al., 2010; Parker & Bindl, 2017).

Finally, the study has established that proactive personality is an important boundary variable that attenuates the strength of the relationship between risk aversion and entrepreneurial intentions. Following this, the study found that risk aversion relates differently to entrepreneurial intentions between high and low proactive individuals. Although risk aversion was associated with decreased intention to pursue an entrepreneurial intention, the decreased entrepreneurial intention was attenuated by proactive efforts. The study supports that because highly proactive individuals are intrinsically motivated to take change-related initiatives, make things happen, and identify and take opportunities in the environment (Jiang, 2017; Parker & Bindl, 2017; Parker et al., 2010), they are capable of coping with challenges in the entrepreneurial environment. Conversely, low proactive individuals who lack intrinsic motivation are passive, and generally do not strive to change things in the environment (Jiang, 2017). Given this, low level of proactivity strengthened the negative relationship between risk aversion entrepreneurial intentions.

Second, proactive personality relates positively to entrepreneurial intentions and this confirms previous research findings (Delle & Ibrahim, 2014; Prabhu et al., 2012). Additionally, the present study demonstrates that the attributes of highly proactive individual such as constructive change agents, self-initiators, and people with the capacity to develop adaptability resources (Jiang, 2017; Porath, Spreitzer, Gibson, & Garnett, 2012; Tolentino et al., 2014), align well with the model of proactive motivation (Parker et al., 2010). Indeed, these attributes have the potential to make proactive people realize their dreams of becoming entrepreneurs.

Finally, this current study shows that proactive personality can be a salient boundary variable that attenuates the strength of the relationship between risk aversion and entrepreneurial intentions. More specifically, the study found that risk aversion relates differently to entrepreneurial intentions between more proactive and less proactive

individuals. Indeed, although risk aversion is associated with reduced intention to create a business, proactive efforts have the potential to reduce such an effect. We reasoned that because proactive people are intrinsically motivated, they can adapt to challenges in the business environment (Tolentino et al., 2014) by proactively positioning and striving to achieve their business goals (Parker et al., 2010). Conversely, less proactive people lack intrinsic motivation, which make them passive. Passivity is not good for success in a dynamic environment such as business.

Implications for practice

The outcome of the study has substantial implications for business consultancy and entrepreneurial practice. Importantly, we found that proactive personality is associated with high levels of entrepreneurial intentions. Consequently, practitioners should aim at identifying and encouraging proactive individuals to venture into business. In addition, we found that individuals who were risk averse were less likely to think of venturing into business. Although risk aversion was found to relate negatively to entrepreneurial intentions, our study showed that risk averse individuals who are highly proactive tend to have high levels of entrepreneurial intentions. More specifically, consultants and entrepreneurial firms could use these findings to train young people who are interested in creating and managing their own businesses in future, focusing on aspects of proactivity that are trainable, especially, initiative taking. In addition, people could be trained to understand that risk is part of business and work in general, but being proactive in setting business goals and striving to achieve them may help reduce the potential effect risk may have on the business.

Limitations and directions for future research

Although our study contributes to the current entrepreneurial intention literature, some limitations are worth acknowledging. First, the cross-sectional nature of our data precludes us from drawing causal inferences. Therefore, the use of longitudinal and experimental approaches in future studies is worthwhile, as such approaches would help establish causal relations. Finally, the single-source nature of our data raises concerns about common method bias, however, Harman's Single factor test via exploratory factor analysis shows that common method bias may not be a problem. Nevertheless, using a multisource data to reduce this bias is worth taking in future research (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Conclusion

Consistent with the person-environment fit theory, this study empirically demonstrates that because of reasons of fit, not everybody would be interested in pursuing a career in entrepreneurship. While risk averse individuals showed decreased intention to pursue a career in entrepreneurship, proactive individuals demonstrated greater intention

to pursue it. Also, proactive personality created a differential relation between risk aversion and entrepreneurial intention, as risk aversion relates strongly and negatively to entrepreneurial intentions at low level of proactive personality, and insignificantly to such intentions at high level of proactive personality. Generally, the findings contribute to the person-environment fit theory (Dawis 2002; Edwards et al., 2006), as they show that individuals with certain personal characteristics may have low intentions to pursue a career in entrepreneurship, while others would have greater intention to pursue such a career. The outcome of our study has the potential to help practicing entrepreneurs, business consultants, and counsellors to design effective entrepreneurial counselling, and training programmes to enhance entrepreneurial proclivities among young people, particularly university students in Ghana.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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References

- Aiken, L.S., & West, S.G. (1991). *Multiple regression: Testing and interpreting interactions*. London: Sage Publications.
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behavior and Human Decision Processes*, 50, 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Allen, D.G., Weeks, K.P., & Moffitt, K.R. (2005). Turnover intentions and voluntary turnover: the moderating roles of self-monitoring, locus of control, proactive personality, and risk aversion. *Journal of Applied Psychology*, 90(5), 980-990. <https://doi.org/10.1037/0021-9010.90.5.980>
- Amit, R., Glosten, L., & Muller, E. (1993). Challenges to theory development in entrepreneurship research. *Journal of Management studies*, 30(5), 815-834. <https://doi.org/10.1111/j.1467-6486.1993.tb00327.x>
- Bakker, A.B., Tims, M., Derks, D. (2012). Proactive personality and job performance: The role of job crafting and work engagement. *Human Relations*, 65(10), 1359-1378. <http://dx.doi.org/10.1177/0018726712453471>
- Baluku, M.M., Nansubuga, F., Otto, K., & Hora, L. (2021). Risk aversion, entrepreneurial attitudes, intention and entry among young people in Uganda and Germany: A

- gendered analysis. *Journal of Entrepreneurship and Innovation in Emerging Economies*, 7(1), 31-59. <http://doi:10.1177/2393957520960567>
- Barringer, B.R. & Ireland, R.D. (2018). *Entrepreneurship: Successfully launching New Ventures plus*, Pearson MyLab Entrepreneurship with Pearson eText Global Edition, 6/E
- Bateman, T.S., & Crant, J.M. (1993). The proactive component of organizational behavior: A measure and correlates. *Journal of Organizational Behavior*, 14(2), 103-118. <https://doi.org/10.1002/job.4030140202>
- Byabashaija W. & Katono, I. (2011). The impact of college entrepreneurial education on entrepreneurial attitudes and intention to start a business in Uganda. *Journal of Developmental Entrepreneurship*, 16(1), 127-144. 10.1142/S1084946711001768
- Crant, J.M. (2000). Proactive behavior in organizations. *Journal of Management*, 26(3), 435-462. <https://doi.org/10.1177/014920630002600304>
- Dawes, J. (2008). Do data characteristics change according to the number of scale points used? *International Journal of Market Research*, 50(1): 61-77. <https://doi.org/10.1177/147078530805000106>
- Dawis, R. V. (2002). Person-environment-correspondence theory. *Career Choice and Development*, (4th ed., pp. 427-464). San Francisco: Jossey-Bass.
- Delle, E., & Amadu, I.M. (2014). Proactive personality and entrepreneurial intention: Employment status and student level as moderators. *International Journal of Small Business and Entrepreneurship Research*, 3(4), 1-13. www.eajournals.org
- Dickson, P.H., Solomon, G.T., & Weaver, K.M. (2008). Entrepreneurial selection and success: does education matter? *Journal of Small Business and Enterprise Development*, 15(2), 239-258. <https://doi.org/10.1108/14626000810871655>
- Edwards, J. R., Cable, D. M., Williamson, I. O., Lambert, L. S., & Shipp, A. J. (2006). The phenomenology of fit: Linking the person and environment to the subjective experience of person-environment fit. *Journal of Applied Psychology*, 91(4), 802-827. <https://doi.org/10.1037/0021-9010.91.4.802>
- Fischer, G.W., Mark, S. Stephen, K. Stephen, F.E., & David, S. (1986). Risk preferences for gains and losses in multiple objective decision making. *Management Science*, 32, 1065-1086. <https://doi.org/10.1287/mnsc.32.9.1065>
- Fuller, J. B., Marler, L. E., & Hester, K. (2006). Promoting felt responsibility for constructive change and proactive behavior: Exploring aspects of an elaborated model of work design. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 27(8), 1089-1120. <https://doi.org/10.1002/job.408>

- George, G., Corbishley, C., Khayesi, J.N.O., Haas, M.R., & Tihanyi, L. (2016). Bringing Africa in: Promising directions for management research. *Academy of Management Journal*, 59, 377–393. <http://dx.doi.org/10.5465/amj.2016.4002>
- Holmes Jr, R.M., Ireland, R.D., & Holcomb, T.R. (2008). Entrepreneurial Risk and Loss Aversion in the Evaluation of Venture Formation Opportunities (Interactive Paper). *Frontiers of Entrepreneurship Research*, 28(17), 3. <http://digitalknowledge.babson.edu/fer/vol28/iss17/3>
- Institute of Statistics, Social and Economic Research, ISSER (June 3, 2017). *Only 10% of graduates find jobs after first year.*
- Jayavelu, R.M. (2017). The influence of Big Five personality traits and self-efficacy on entrepreneurial intention: The role of gender. *Journal of Entrepreneurship and Innovation in Emerging Economies*, 3(1), 41-61. <https://doi.org/10.1177/2393957516684569>
- Jiang, Z. (2017). Proactive personality and career adaptability. The role of thriving at work. *Journal of Vocational Behaviour*, 98, 85-97. <http://dx.doi.org/10.1016/j.jvb.2016.10.003>
- Katz, J., & Gartner, W.B. (1988). Properties of Emerging Organizations. *Academy of Management Review* 13(3), 429-441. <https://doi.org/10.2307/258090>
- Kolk, A., & Rivera-Santos, M. (2018). The state of research on Africa in business and management: Insights from a systematic review of key international journals. *Business & Society*, 57(3), 415-436. <https://doi.org/10.1177/0007650316629129>
- Koudstaal, M., Sloof, R., & van Praag, M. (2016). Risk, uncertainty, and entrepreneurship. Evidence from a lab-in-the-field experiment. *Management Science*, 62(10), 2897-2915. <http://dx.doi.org/10.1287/mnsc.2015.2249>
- Krueger, N.F. & Carsrud, A.L. (1993). Entrepreneurial intentions: applying the theory of planned behavior. *Entrepreneurship and Regional Development*, 5, 315–330. <https://doi.org/10.1080/08985629300000020>
- Li, N., Harris, T.B. Boswell, W. R., & Xie, Z. (2011). The role of organizational insiders' developmental feedback and proactive personality on newcomers' performance: An interactionist perspective. *Journal of Applied Psychology*, 96(6), 1317–1327. <https://doi.org/10.1037/a0024029>
- Linan, F., & Chen, Y. (2006). *Testing the entrepreneurial intention model on a two-country sample.* (Working paper) Documents de Treball. Universitat Autònoma de Barcelona, Spain.
- Mandrik, C.A., & Bao, Y. (2005). Exploring the Concept and Measurement of General Risk Aversion. In NA Advances in Consumer Research Volume 32, eds. Geeta Menon and Akshay R. Rao, Duluth, MN: Association for Consumer Research, pp.

- 531-539. <http://www.acrwebsite.org/volumes/9140/volumes/v32/NA-32>
- McGuire, S. J. (2003). *Entrepreneurial organizational culture: construct definition and instrument development and validation* (Doctoral dissertation, George Washington University).
- Miller, S.M. (1975). Measures of risk aversion: Some clarifying comments. *Journal of Financial and Quantitative Analysis*, 299-309. https://www.cambridge.org/core/product/identifier/S0022109000018263/type/journal_article
- Neneh, B.N. (2019). From entrepreneurial intentions to behavior: The role of anticipated regret and proactive personality. *Journal of Vocational Behavior*, 112, 311-324. <https://doi.org/10.1016/j.jvb.2019.04.005>
- Nunnally, J.C., & Bernstein, I.H. (1994). *Psychometric theory* (3rd Ed.), New York: McGraw-Hill.
- Parker, S.K., Bindl, U.K., & Strauss, K. (2010). Making things happen: A model of proactive motivation. *Journal of Management*, 36(4), 827-856. <http://doi:10.1177/0149206310363732>
- Parker, S.K., & Bindl, U.K. (2017). Proactivity at work: A big picture perspective on a construct that matters. In Parker, S.K., & Bindl, U.K. (Eds.), *Proactivity at work: Making things happen in organizations*, pp. 1-20. Taylor & Francis, New York and London.
- Piperopoulos, P., & Dimov, D., (2015). Burst bubbles or build steam? Entrepreneurship education, entrepreneurial self-efficacy, and entrepreneurial intentions. *Journal of Small Business Management*, 53 (4), 970–985. <https://doi.org/10.1111/jsbm.12116>
- Porath, C.L., Spreitzer, G. Gibson, C., & Garnett, F.G. (2012). Thriving at work: Toward its measurement, construct validation, and theoretical refinement. *Journal of Organizational Behaviour*, 33(2), 250-275. DOI: 10.1002/job.756
- Podsakoff, P.M., MacKenzie, S.B. Lee, J. Y., & Podsakoff, N.P. (2003). Common method biases in behavioural research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Prabhu, V.P., McGuire, S.J. Drost, E.A., & Kwong, K.K. (2012). Proactive personality and entrepreneurial intent: Is entrepreneurial self-efficacy a mediator or moderator”? *International Journal of Entrepreneurial Behaviour & Research*, 18(5), 559-586. <http://doi.org/10.1108/13552551211253937>
- Qualls, W.J., & Puto, C.P. (1989). Organizational climate and decision framing: An integrated approach to analyzing industrial buying decisions. *Journal of Marketing Research*, 26, 179-192. <https://doi.org/10.2307/3172604>

- Rosique-Blasco, M., Madrid-Guijarro, A., & Garcia-Perez-de-Lema, D. (2018). The effects of personal abilities and self-efficacy on entrepreneurial intentions. *International Entrepreneurship Management Journal*, 14, 1025-1052. <http://doi:10.1007/s11365-017-0469-0>
- Scarborough, N.M. & Cornwall, J.R (2016). *Essentials of Entrepreneurship and Small Business Management*. Eighth Edition, Pearson Education Press
- Seibert, S.E., Crant, J.M., & Kraimer, M.L. (1999). Proactive personality and career success. *Journal of Applied Psychology*, 84(3), 416. <https://doi.org/10.1037/0021-9010.84.3.416>
- Shane, S., & Venkatamaran, S., (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review* 26, 13–16. <https://doi.org/10.2307/259271>
- Shinnar, R.S., Hsu, D.K., Powell, B.C., & Zhou, H., (2018). Entrepreneurial intentions and start-ups: are women or men more likely to enact their intentions? *International Small Business Journal*, 36 (1), 60–80. <https://doi.org/10.1177/0266242617704277>
- Shirokova, G., Osiyevskyy, O., & Bogatyreva, K. (2016). Exploring the intention-behavior link in student entrepreneurship: moderating effects of individual and environmental characteristics. *European Management Journal*, 34, 386–399. <http://dx.doi.org/10.1016/j.emj.2015.12.007>.
- Thompson, J. A. (2005). Proactive personality and job performance: A social capital perspective on mediating behaviours. *Journal of Applied Psychology*, 90, 1011–1017. <https://doi.org/10.1037/00219010.90.5.1011>
- Tims, M., Bakker, A.B. & Derks, D. (2015). Job crafting and job performance: A longitudinal study. *European Journal of Work and Organizational Psychology*, 24(6): 914–928. <https://doi.org/10.1080/1359432X.2014.969245>
- Tolentino, L.R., Garcia, P.R.M. Lu, V.N. Restubog, S.L.D. Bordia, P., & Plewa, C. (2014). Career adaptation: The relation of adaptability to goal orientation, proactive personality, and career optimism. *Journal of Vocational Behaviour*, 84(1), 39-48. <http://dx.doi.org/10.1016/j.jvb.2013.11.004>
- Van Gelderen, M.V., Kautonen, T., & Fink, M. (2015). From entrepreneurial intentions to actions: Self-control and action-related doubt, fear, and aversion. *Journal of Business Venturing*, 30, 655-673. <http://dx.doi.org/10.1016/j.busven.2015.01.003>
- Wang, Y.H., Hu, C. Hurst, C. S., Yang, C. C. (2014). Antecedents and outcomes of career plateaus: The roles of mentoring others and proactive personality. *Journal of Vocational Behaviour*, 85(3), 319–328. <https://doi.org/10.1016/j.jvb.2014.08.003>
- Walsh, J.P. (2015). Organization and management scholarship in and for Africa and the world. *Academy of Management Perspectives*, 29, 1-6. <https://doi.org/10.5465/amp.2015.0019>