

“Entrepreneurial self-efficacy (ESE) and small business performance: the mediating effect of entrepreneurial mindset and openness to experience”

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Entrepreneurial self-efficacy and small business performance: the mediating effect of entrepreneurial mindset and openness to experience

Abstract

Small business performance is a key concern around the globe as small businesses play a vital role in fostering economic growth and development. Despite the increasing research on enhancing small business performance, most small businesses still fail within the first three years of operations. As such, unearthing the underlying aspects on how several factors affect small business performance continues to be an important research agenda. This study focuses on examining the mediating effect of entrepreneurial mindset and openness to experience on the relationship between entrepreneurial self-efficacy (ESE) and small business performance. The empirical findings indicate that both entrepreneurial mindset and openness to experience fully mediate the ESE-performance relationship. These findings act as an enrichment of our current understanding of the ESE-performance relationship. The study culminates by providing both theoretical and practical implications for entrepreneurship theory and practice.

Keywords: entrepreneurial self-efficacy, entrepreneurial mindset, openness to experience, firm performance, small businesses.

JEL Classification: M13, M21, M51, L25.

Introduction

Small businesses play a vital role in fostering economic growth and development. As such, it has been a key concern amongst scholars around the globe in determining the factors that can enhance the performance of small businesses so that they can continue to grow and provide their benefits to society (Arend, 2014; Blackburn, Hart & Wainwright, 2013; Alasadi & Sabbagh, 2015; Leitner & Guldenberg, 2010; Oladapo & Onyeaso, 2012; Ong & Ismail, 2012; Subrahmanya, 2011). Coad (2007) explicates that it is imperative to enhance the performance of small businesses, as poor performance can result in business failure. Recurrent literature that aims at examining the factors that determine small business performance have elucidated the key role that entrepreneurial traits play in enhancing small business performance (Begley & Boyd, 1987; Koenig, Schlaegel & Gunkel, 2013; Neneh, 2011; Ong & Ismail, 2012; Oyeniyi & Adeniji, 2010; Poon, Ainuddin & Junit, 2006; Roper, 1998). One of such entrepreneurial trait that has received enormous interest in recent years is Entrepreneurial self-efficacy (ESE) (Khedhaouria, Gurău & Torrès 2014; Klyver & Thornton, 2010; Torres & Watson, 2013). ESE refers to an individual's beliefs regarding their capability in discovering and exploiting opportunities in the process of starting and growing a business (Klyver & Thornton, 2010).

ESE is vital to the performance of small businesses because the decisions and actions of a small business owner directly influence the direction of the firm and consequently its overall performance. As such, an

entrepreneur's beliefs in his/her capability to produce the desired results in an entrepreneurial pursuit directly affects the businesses performance (Baum & Locke, 2004; Markman, Baron & Balkin, 2005). Chen et al. (1998) showed that ESE was vital for entrepreneurs to successfully complete the tasks of running a small business. Khedhaouria et al. (2014) expanded on the model of Chen et al. (1998) to demonstrate that ESE had a significant positive correlation with firm performance. Similarly, several studies (Baum & Locke, 2004; Hmieleski & Baron, 2008; Khedhaouria et al., 2014; Kickul et al., 2009; Torres & Watson, 2013) have highlighted the significant influence of ESE on business performance.

Existing evidence (Forbes, 2005; Hmieleski & Baron, 2008) expounds that entrepreneurs with high levels of ESE often set challenging growth expectations for their businesses and persevere in their efforts to accomplish the set goals. This is because ESE also guides the choice of activities that an entrepreneur engages in, as well as, their level of persistence (Bandura, 1997). However, the scope of activities an entrepreneur can perform are based on the individual's bulk of knowledge and competences in that domain and can thus affect the ESE-performance relationship. Consequently, several factors pertinent to the individual entrepreneur as well as situational factors could affect the ESE-performance relationship. For example, Hmieleski & Baron (2008) showed that although ESE had a strong positive influence on firm performance, the relationship was moderated by optimism and industry conditions. In order to be optimistic and survive in difficult and uncertain industry conditions, entrepreneurs are required to exploit an entrepreneurial mindset (Haynie, Shepherd, Mosakowski & Earley, 2010; Ireland, Hitt

& Sirmon, 2003). Ireland et al. (2003) define an entrepreneurial mindset as “the ability to rapidly sense, act, and mobilize, even under uncertain conditions” (Ireland et al., 2003, pp. 963-989). According to Mauer et al. (2009), the entrepreneurial mindset can be enacted by ESE.

Similarly, an entrepreneur’s level of persistence through challenging situations can be explained by his/her level of engagement (Martinez & Bryant, 2014). Studies (Komarraju et al., 2005; Sánchez-Cardona et al., 2012) suggest that variances in such levels of engagement are explained by openness to experience, which enables entrepreneurs to view challenges as avenues for learning and broadening their knowledge. Openness to experience is defined as the “proactive seeking and appreciation of experience for its own sake, and as toleration for and exploration of the unfamiliar” (Piedmont, 1998, p. 87). Hartman and Betz (2007) showed that openness to experience was significantly related to self-efficacy for creative and intellectual pursuits. This can be explained by the proposition that once entrepreneurs start seeing challenges as opportunities for learning, they can then continuously believe in their ability to discover and exploit opportunities amidst challenging circumstances. Based on the above discussion, it can be expected that engaging in the right entrepreneurial mindset as well as being open to experience could act as possible channels through which ESE can have an impact on a firm’s performance. ESE represents beliefs of one’s capabilities that need to be translated into actual entrepreneurial task outcomes in order to influence a firm’s performance. As such, while entrepreneurs might currently benefit from the existing evidence supporting the direct ESE-performance relationship, having a deeper understanding of how the perceived capabilities translate to actual objective of enhancing the firm’s performance is imperative in shaping entrepreneurship theory and practice. Consequently, this study has as main objective to examine the mediating effects of entrepreneurial mindset and openness to experience on the ESE-performance relationship.

1. ESE and firm performance

In the last two decades, numerous studies have focused on examining the role of self-efficacy in different aspects of entrepreneurship, ranging from entrepreneurial intentions to firm performance (Chen et al., 1998; Boyd & Vozkis, 1994; Khedhaouria et al., 2014; Kickul et al., 2009; Baum & Locke, 2004). With respect to firm performance, several studies (Baum & Locke, 2004; Hmieleski & Baron, 2008; Kickul et al., 2009; Torres & Watson, 2013; Khedhaouria et al., 2014) have shown consistency in a direct positive relationship between ESE and firm performance. This suggests that the more entrepreneurs are confident in

their ability to successfully complete entrepreneurial task, the more likely they are to lead their businesses to better performance. Entrepreneurs with high levels of ESE always set challenging performance goals for their firms and adopt several strategies in achieving the set goals (Hmieleski & Baron, 2008). Hence, following this line of discussion, this study hypothesizes that ESE has a significant positive influence on firm performance.

H1: ESE has a significant positive impact on small business performance.

2. The mediating effect of entrepreneurial mindset

As earlier indicated, having an entrepreneurial mindset requires an individual to be able to rapidly sense, act and mobilize even in uncertain circumstances to exploit entrepreneurial opportunities. The entrepreneurial mindset has been considered central in entrepreneurship with several studies (Neneh, 2012; Ireland et al., 2003) indicating that it enhances the success and performance of businesses. Haynie et al. (2010) emphasized the need to view the entrepreneurial mindset as a metacognitive capability. According to Flavell (1987) metacognitive capabilities enable an individual to be able to have a cognisant understanding of people, task, and strategy. He further emphasized that metacognition represents a person’s full understanding of their motivations, strengths, and weaknesses. In the context of entrepreneurship, entrepreneurial motivation has been known to guide entrepreneurial behaviors (Shane, 2000; Neneh, 2012) while a good understanding of strengths and weaknesses is vital for strategy formulation. One way of enabling entrepreneurs to determine their motivation, strength and weaknesses is by examining the level of ESE as ESE provides them with the ability to evaluate their own competence in completing entrepreneurial task. As such, if an entrepreneurial mindset is viewed as a metacognitive capability, then it is not surprising to acknowledge the views of Mauer et al. (2009) that ESE enacts the entrepreneurial mindset. In this light, this study hypothesizes that ESE has a significant positive impact on entrepreneurial mindset.

H2: ESE has a significant positive impact on the entrepreneurial mindset.

While it has been indicated above that ESE has a significant influence on firm performance, simply having ESE might not provide a full understanding of the ESE-performance relationship. This is because ESE is only based of perception of capabilities and these have to be translated into action to ensure firm performance. The fact that ESE can enact the entrepreneurial mindset which involves real action in pursuing entrepreneurial opportunities could suggest that the ESE-performance relationship can be mediated by the entrepreneurial mindset. In order to

survive in the current competitive business environment, small business owners need to continuously seek new opportunities and develop strategies to exploit them (Haynie et al., 2010; Ireland et al., 2003). Existing evidence (Munoz, Mosey & Binks, 2011; Neneh, 2012) suggests that such opportunity recognition is achieved by developing an entrepreneurial mindset. As such, this study hypothesizes that the entrepreneurial mindset mediates the ESE performance relationship.

H3: Entrepreneurial mindset has a significant influence on firm performance.

H4: The ESE-performance relationship is mediated by the entrepreneurial mindset.

3. The mediating effect of openness to experience

Individuals who are open to experience have been widely associated with characteristics such as innovativeness, creativity, tolerance of ambiguity, risk taking and autonomy (Farrington, 2012). These are entrepreneurial traits that have been widely known to have a positive impact on a firm's success and performance (Khedhaouria et al., 2014). It is therefore not surprising that several studies (Farrington, 2012; Thal & Bedingfield, 2010; Nadkarni & Herrmann, 2010) have shown that openness to experience has a significant positive influence on the firm performance. People who are high in openness to experience always seek out new ideas and employ creativity in pursuing these ideas (Farrington, 2012). The generation of new ideas is vital for enhancing an organizations'

product/process innovation which in turn positively impacts on firm performance.

Some aspects of openness to experience like innovativeness and risk taking are objective aspects of the perceived ESE capabilities (e.g. see Chen et al., 1998). Markman et al. (2005) explicate that perceptions usually translate to actions. This probably explains the strong relationship between ESE and openness to experience for creative and intellectual pursuits (Hartman & Betz, 2007). Generally, people tend to engage in new experiences when they believe in their capabilities to engage in the experiences (Sánchez-Cardonaa et al., 2012). As such, it can be expected that ESE significantly affects openness to experience. Furthermore, since openness to experience has a positive impact on firm performance, it can be expected that openness to experience will mediate the relationship between ESE and firm performance. In this light, the following hypotheses are established to determine the mediating effect of openness to experience on the ESE-performance relationship.

H5: ESE has a significant influence on openness to experience.

H6: Openness to experience has a significant influence on firm performance.

H7: Openness to experience mediates the ESE-performance relationship.

A summary of all hypotheses established above are presented in Figure 1 below.

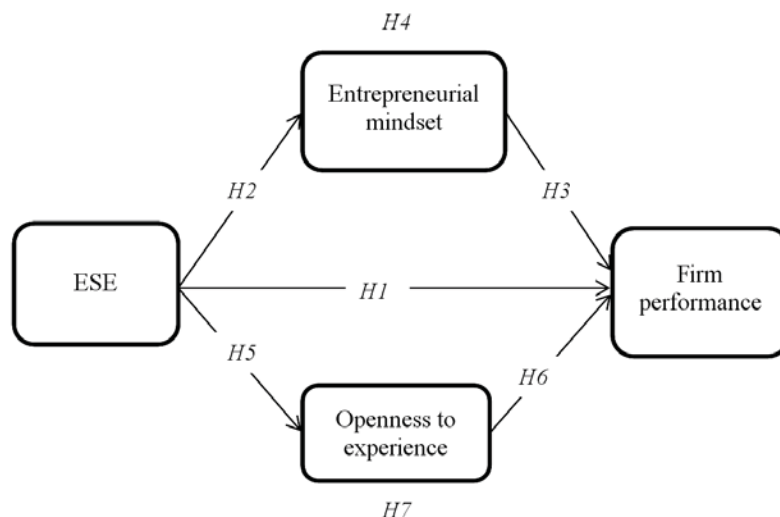


Fig. 1. Schematic representation of hypothesized models

4. Methodology

4.1. Sample and data collection. Data were collected by means of self-administered questionnaires. The sample comprised of entrepreneurs in the Mangaung metropolitan municipality in the Free State province of South Africa. Due to the lack of a database of entrepreneurs in the Free State and South Africa in

general, the convenience sampling method was adopted and supplemented with snowball sampling. Potential respondents from the study were identified from the Yellow pages directory and then visited at their business locations. A total of 320 questionnaires were administered of which 200 were fully completed and returned resulting in a 62.5% valid response rate.

4.2. Variables and measures. Four key variables were used in the study, namely: ESE, entrepreneurial mindset, openness to experience, and firm performance. This study adopted several standard measurement instruments from existing literature that has been widely used and validated across several studies. Questionnaire items were measured on a five-point scale with 1 representing “strongly disagree” and five representing “strongly agree”. ESE was measured using the widely used ESE scale by of Chen et al. (1998). The scale measures ESE based on entrepreneurs perceived capabilities in successfully completing task in five business domains namely: marketing, management, innovation, risk-taking, and financial control. The scale comprises of 22-items and the total ESE is computed by summing the items in all five domains. Entrepreneurial mindset was measured using existing self-assessment questions adopted from prior studies (Dweck, 2006; Neneh, 2012). Openness

to experience was measured using the corresponding extracts from the Ten Item Personality Inventory (TIPI) scale by Gosling, Rentfrow and Swann (2003). Firm performance was measured using a combination of financial and nonfinancial measures. The different measures used following prior studies (Farrington, 2012; Hmieleski & Baron, 2008; Koenig et al., 2013; Ong & Ismail, 2012; Oyeniyi, & Adeniji, 2010) are sales growth, profits, growth in market share, and customer satisfaction.

5. Results and discussions

Principal component analysis was performed on the data using the Verimax rotation. A total of 18 out of the 22 factors by Chen et al. (1998) loaded into five factors (marketing, innovation, management, risk-taking, and financial control) eigenvalues greater than 1, and accounting for 80.08% of the total variance. The 18 factors loaded with values greater than 0.7. The results are presented in Table 1 below.

Table 1. Component analysis of ESE factors

	Components				
	1	2	3	4	5
Marketing					
Set and meet market share goals	0.701				
Set and meet sales goals	0.728				
Establish position in product market	0.713				
Conduct market analysis	0.747				
Expand business	0.756				
Innovation					
New venturing and new ideas		0.840			
New products and services		0.897			
New methods of production, marketing and management		0.733			
Management					
Reduce risk and uncertainty			0.915		
Strategic planning and develop information system			0.760		
Manage time by setting goals			0.827		
Establish and achieve goals and objectives			0.921		
Risk-taking					
Take calculated risks				0.761	
Take responsibility for ideas and decisions				0.862	
Work under pressure and conflict				0.786	
Financial control					
Perform financial analysis					0.811
Develop financial system and internal controls					0.841
Control cost					0.818
Number of items (N)	5	3	4	3	3
Eigenvalue	7.71	2.99	1.85	1.42	1.24
Percentage of variance	40.55	15.79	9.72	7.47	6.55
Cronbach alpha	0.839	0.743	0.920	0.14	0.817

The score for each sub domain of the ESE was calculated by averaging the total items for the sub domain and the total ESE score was calculated by averaging all the 18 items. Reliability analysis using Cronbach's alpha was calculated for each of the sub domains of the ESE and the results depicted in Table 1 indicate that all five sub-domains had alpha

values greater than 0.7 indicating good reliability. It is imperative to recall here that the components of self-efficacy do not depict actual skills of the entrepreneur or practices of his/her business but on the entrepreneur's perception of his/her competency in performing specific business task (Markman et al., 2005).

Table 2. Correlation matrix

		Mean	S.D.	1	2	3	4	5	6	7	8	9
1	Marketing	2.70	0.75	1								
2	Management	1.80	0.78	-0.39**	1							
3	Innovation	2.87	0.67	-0.72**	0.43**	1						
4	Risk taking	2.17	0.61	-0.16*	0.47**	0.35**	1					
5	Finance	4.17	0.48	-0.40**	0.23**	0.44**	0.24**	1				
6	Total ESE	2.76	0.32	-0.19**	0.61**	0.52**	0.67**	0.41**	1			
7	Entrepreneurial mindset	3.45	0.62	-0.10	0.23**	0.17*	0.20**	0.09	0.27**	1		
8	Openness to experience	3.44	0.68	-0.19**	0.22**	0.33**	0.25**	0.28**	0.44**	0.39**	1	
9	Firm performance	2.99	0.70	0.13	0.20**	-0.02	0.08	-0.14*	0.25**	0.49**	0.32**	1

The descriptive data indicate that financial control (mean = 4.17) is the most common ESE domain that the entrepreneurs believe they can successfully complete the designated task while the management domain (mean = 1.80) is where entrepreneurs believe their capabilities are insufficient. The overall ESE of the entrepreneurs is moderate (mean 2.17) while the level of entrepreneurial mindset and openness to experience are almost the same. Furthermore, it is also seen that marketing has a significant negative relationship with management, innovation, financial control, total ESE and openness to experience. As such, entrepreneurs who believe they have high marketing capabilities tend to fall short in other aspects of running a small business. The findings are contrary to that of Chen et al. (1998) who found significant positive relationships between marketing and all the other four components of ESE. All the other four domains of ESE had significant positive relationships with each other which are incongruent with prior studies (Chen et al., 1998). The positive relationship between management and openness to experience is in line with the findings of D'souza and Saelee (2014) who established that management students had a significantly higher level of openness to experience than accounting and marketing students. It is rather surprising however, that marketing has a significant negative relationship with openness to experience given that people high in openness to experience are creative and imaginative which are great qualities in marketing. The significant positive relationship between openness to experience and

innovativeness and risk taking is congruent with prior studies (Batey & Furnham, 2006; Patterson et al., 2009; Yesil & Sozbilir, 2013; Harrison et al., 2006; McGhee et al., 2012; Ghafari et al., 2014; Saeed et al., 2013).

Entrepreneurial mindset has a significant positive relationship with management, innovation, risk-taking, total ESE, openness to experience and firm performance. These findings are consistent with existing studies. For example, Neneh (2012) showed that risk-taking had a significant relationship with entrepreneurial mind-set; Mauer et al. (2009) and Sinclair (2012) explicated that ESE was vital in successfully enacting and developing the entrepreneurial mindset; while several researchers (Dhliwayo & Vuuren, 2007; Neneh, 2012; Njeru, 2010) expound that an entrepreneurial mindset can be exhibited through innovativeness. It was further interestingly noticed that while entrepreneurs rated their financial control capabilities as high, financial control had a significant negative relationship with firm performance. This thus indicates that their over estimation of their financial capabilities do not translate to actual firm performance which is contrary to the fact that actual financial management practices and skills directly translate to positive firm performance (Horngreen et al., 2006).

5.1. Mediating effect of entrepreneurial mindset.

In order to test the hypotheses, cross sectional analyses were performed and the findings are presented in Table 3 and Table 4 below.

Table 3. Mediating effect of entrepreneurial mindset

Variables	Models							
	Model A (H1)		Model B (H2)		Model C (H3)		Model D (H4)	
	Beta	Sig.	Beta	Sig.	Beta	Sig.	Beta	Sig.
Control variables								
Constant		0.625		0.135		0.005		0.191
Log (Size)	0.285	0.003***			0.285	0.001***	0.273	0.002***
Log (Age)	-0.097	0.307			-0.078	0.356	-0.078	0.352
Independent variable								
Total ESE	0.212	0.028**	0.274	0.006			0.092	0.296

Table 3 (cont.). Mediating effect of entrepreneurial mindset

Variables	Models							
	Model A (H1)		Model B (H2)		Model C (H3)		Model D (H4)	
	Beta	Sig.	Beta	Sig.	Beta	Sig.	Beta	Sig.
Mediator								
Entrepreneurial mindset					0.468	0.000***	0.444	0.000***
F-value	5.749		15.493		7.978		11.904	
F-value (sig.)	0.001***		0.000***		0.006***		0.000***	
R ²	0.152		0.326		0.075		0.334	
Adjusted R ²	0.126		0.305		0.066		0.306	
R ² -change	-		-		-		0.182	
F-change	-		-		-		25.911	
F-change (Sig.)	-		-		-		0.000***	
Model A addressing hypothesis H1. Model B addresses hypothesis H2. Model C addresses hypothesis H3 and model D hypothesis H4. R ² -change and F-change indicate the effecting of adding entrepreneurial mindset to the relationship between ESE and performance tested in model A.								

The results in Table 3 followed the four step approach by Baron and Kenny (1986) in determining the mediating effect of entrepreneurial mindset on the relationship between ESE and firm performance. Model A provides support for hypothesis H1 indicating that ESE has a significant positive impact on firm performance. The findings are congruent with existing studies (Baum & Locke, 2004; Markman, Baron & Balkin, 2005; Gurău & Torrès, 2014; Hmieleski & Baron, 2008; Kickul et al., 2009; Torres & Watson, 2013; Khedhaouria et al., 2014). This further supports existing theories on the importance of self-efficacy in enhancing performance in different domains of human functioning (Bandura & Locke, 2003). Model B provides support for hypothesis H2 depicting a significant positive relationship between ESE and entrepreneurial mindset. This supports the allusion by Mauer et al. (2009) that self-efficacy is necessary in successfully enacting the entrepreneurial mindset. However, most studies (Haynie et al., 2010; Neneh, 2012; Ozgen, 2011) examining the factors that affect an entrepreneurial mindset have not examined the influence of ESE.

In model C, it is seen that the entrepreneurial mindset has a significant positive influence on firm

performance. As such, hypothesis H3 is supported. This is in line with prior studies (Brown & Eisenhardt, 1998; Njeru, 2012) that have also emphasized the positive impact of entrepreneurial mindset on firm performance. In model D it is observed that the addition of entrepreneurial mindset on the relationship between ESE and performance accounts for 18.2% of the total variance explained (R²-change) and the change is significant at the 1% level (F-change = 250911, $p < 0.001$). Also it is observed that entrepreneurial mindset significantly predicts firm performance while the significant effect of ESE on firm performance completely disappears as the effect becomes insignificant ($p > 0.05$). As the ESE-performance relationship becomes insignificant after the addition of the mediator variable (entrepreneurial mindset), the findings support the existence of perfect mediation as explicated in the Baron and Kenny (1986) model. This therefore supports hypothesis H4 that entrepreneurial mindset is a significant mediator of the ESE-performance relationship.

Next, the mediating effect of openness to experience on the ESE performance relationship was examined and the findings are depicted in Table 4 below.

Table 4. Mediating effect of openness to experience

Variables	Models					
	Model E (H5)		Model F (H6)		Model G (H7)	
	Beta	Sig.	Beta	Sig.	Beta	Sig.
Control variables						
Constant		0.001***		0.071		0.355
Log (Size)			0.352	0.000	0.340	0.000
Log (Age)			-0.045	-4.93	-0.049	0.593
Independent variable						
Total ESE	0.439	0.000***			0.065	0.529
Mediator						
Openness to experience			0.349	0.000***	0.319	0.003
F-value	23.354	9.331	7.054			
F-value (sig.)	0.000***	0.000	0.001			
R ²	0.192	0.226	0.229			

Table 4 (cont.). Mediating effect of openness to experience

Variables	Models					
	Model E (<i>H5</i>)		Model F (<i>H6</i>)		Model G (<i>H7</i>)	
	<i>Beta</i>	<i>Sig.</i>	<i>Beta</i>	<i>Sig.</i>	<i>Beta</i>	<i>Sig.</i>
Adjusted <i>R</i> ²	0.184		0.202		0.197	
<i>R</i> ² -change					0.077	
<i>F</i> -change	-		-		9.451	
<i>F</i> -change (Sig.)	-		-		0.003***	
Model E addressing hypothesis <i>H5</i> , while model F addresses hypothesis <i>H6</i> and model G hypothesis <i>H7</i> . <i>R</i> ² -change and <i>F</i> -change indicate the effecting of adding openness to experience to the relationship between ESE and performance tested in model A.						

In examining the mediation effect of openness to experience, the initial ESE-performance relationship is not included in Table 4 to avoid duplication as it has been discussed in Table 3 above. Model E provides support for hypothesis *H5* indicating a significant positive impact of ESE on openness to experience. Similarly, Hartman and Betz (2007) pointed out the existence of a strong relationship between self-efficacy and openness to experience for creative and intellectual pursuits. Model F depicts the regression model indicating the influence of openness to experience on firm performance. It was observed that openness to experience had a significant positive influence on firm performance. This finding supported hypothesis *H6*. This corroborates the findings of existing studies (Farrington, 2012; Nadkarni & Herrmann, 2010; Thal & Bedingfield, 2010) which indicated that openness to experience had a strong positive impact on firm performance.

In Mode G, it was observed that openness to experience provided complete/perfect mediation on the ESE-performance relationship. This is because the addition of openness to experience to the ESE-performance relationship made ESE insignificant in predicting firm performance ($p > 0.05$). The addition of openness to experience accounted for a significant variation of 7.7%. This supports hypothesis *H7* that openness to experience fully mediates the ESE-performance relationship.

Contributions

Several theoretical and practical contributions emerge from this study. Firstly, the findings of this study contribute to the existing literature on self-efficacy. Existing evidence suggests a significant direct positive impact of self-efficacy on firm performance (Baum & Locke, 2004; Markman et al., 2005; Kickul et al., 2009; Torres & Watson, 2013; Khedhaouria et al., 2014). Hmieleski & Baron (2008) further showed that the relationship is moderated by optimism and industry conditions. Researchers have primarily focused on the direct link between self-efficacy and firm performance because it is widely acknowledged that actions are a direct consequence of what people believe they can do as opposed to what is objectively true (Markman

et al., 2005). However, it is plausible to assume that beliefs on one's ability to perform entrepreneurial task can only be objectively translated to firm performance through real actions. Such real actions can only stem from aspects like entrepreneurial mindset which is the active pursuit of opportunities backed by actions aimed at exploiting the opportunities (Neneh, 2012) and openness to experience which aids the entrepreneur in acquiring knowledge and skills in the domain of the specific task. By examining the mediating effect of these two factors on the ESE-performance relationship, this study showed that both an entrepreneurial mindset and openness to experience fully mediates the ESE-performance relationship. This depicts that ESE rather has an indirect effect of firm performance through mediating factors like entrepreneurial mindset and openness to experience as opposed to the direct relationship hypothesized in prior studies (e.g. Baum & Locke, 2004). The findings further showed that ESE should rather be considered as a factor that enhances an individual's entrepreneurial mindset and openness to experience in order to enhance their ability to successfully carry out the task required for improving a firm's performance. Prior studies (Haynie et al., 2010; Neneh, 2012; Ozgen, 2011) that examine the factors that enhance entrepreneurial mindset have not looked at the influence of self-efficacy thus indicating this contribution to existing literature.

The study also has practical implications for small business owners around the world and South Africa specifically. With the high failure rate of small businesses in South Africa, there has been increasing interest in determining factors that can enhance the performance of South African small businesses (Mohutsiwa, 2012; Neneh & Van Zyl, 2012; Neneh, 2012; Farrington, 2012). Neneh (2012) showed the need for enhancing an entrepreneurial mindset in the South African small business sector to boost performance while Farrington (2012) showed the significant positive influence of openness to experience on the performance of South African small businesses. This study supports the existing evidence (Neneh, 2012; Farrington, 2012) and fortifies the call for developing these two competencies among South

African entrepreneurs as a means of enhancing their firm's performance. This study goes beyond the existing studies to show that enhancing entrepreneurial ESE among South African entrepreneurs can be a valuable approach to enhancing these two competencies as ESE showed a significant positive influence on both factors.

Conclusion

This study established and empirically tested a model for examining the relationship between ESE and firm performance through the mediating factors of entrepreneurial mindset and openness to experience. Prior studies had identified the importance of ESE and showed its direct relationship with firm performance. However, little had been accomplished in fully explicating the path through which perceived capabilities (ESE) translates into actual objective of enhancing the firm's performance. The fact that the ESE-performance relationship is moderated by factors such as optimism and industry conditions (Hmieleski & Baron, 2008) calls for the need to understand how ESE can enhance firm performance in turbulent industry

conditions. As such, entrepreneurial traits like the entrepreneurial mindset and openness to experience were deemed as important factors for ensuring entrepreneurial success in difficult times (Haynie et al., 2010; Ireland et al., 2003). The findings indicated that both the entrepreneurial mindset and openness to experience fully mediated the ESE performance relationship. These findings have significant implications for entrepreneurship theory and practice and it sheds sufficient light of the widely acknowledged ESE-performance relationship. It clearly explicates how thought out capabilities (ESE) translate into action capabilities (entrepreneurial mindset and openness to experience) in order to have a tangible impact on firm performance. For example, simply believing that one is innovative does not result in a magical innovative services or product. But once the entrepreneur acts on this belief through openness to experience which enables him/her to proactively seek new knowledge and combine ideas through creativity, the result is the development of a tangible innovation that can have a direct consequence on the firms' performance.

References

1. Alasadi, R. & Sabbagh, H.A. (2015). The Role of Training in Small Business Performance, *International Journal of Information, Business and Management*, 7 (1), pp. 293-311.
2. Arend, R.J. (2014). Entrepreneurship and Dynamic Capabilities: How Firm Age and Size Affect the "Capability Enhancement-SME Performance" Relationship, *Small Business Economics*, 42 (1), pp. 33-57.
3. Bandura, A. (1997). *Self-Efficacy: the exercise of control*. W.H. Freeman: New York.
4. Batey, M. & Furnham, A. (2006). Creativity, intelligence, and personality: A critical review of the scattered literature, *Genetic, Social and General Psychology Monographs*, 132, pp. 455-929.
5. Baum, J.R. & Locke, E.A. (2004). The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth, *Journal of Applied Psychology*, 89 (4), pp. 587-598.
6. Begley, T.M. & Boyd, D.P. (1987). Psychological Characteristics Associated with Performance in Entrepreneurial Firms and Smaller Businesses, *Journal of Business Venturing*, 2 (1), pp. 79-93.
7. Blackburn, R.A., Hart, M. & Wainwright, T. (2013). Small business performance: business, strategy and owner-manager characteristics, *Journal of Small Business and Enterprise Development*, 20 (1), pp. 8-27.
8. Boyd, N.G. & Vozikis, G.S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions, *Entrepreneurship Theory and Practice*, 18, pp. 63-90.
9. Brown, S.L. & Eisenhardt, K. (1998). *Competing on the Edge – Strategy as Structured Chaos*. Boston, MA, Harvard Business School Press.
10. Chen, C.C., Greene, P.G. & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, 13, pp. 295-316.
11. Coad, A. (2007). Firm Growth: A survey. Max planck Institute of Economics. Available at: <https://papers.econ.mpg.de/evo/discussionpapers/2007-03.pdf>.
12. Dhliwayo, S. & Van Vuuren, J.J. (2007). The strategic entrepreneurial thinking imperative, *Acta Com*, 7, pp. 123-134.
13. D'souza, J.B. & Saelee, S. (2014). The Influence of Personality Traits in Relation to Choice of Major in University, *World Review of Business Research*, 4 (3), pp. 84-94.
14. Dweck, C.S. (2006). *Mindset: The new psychology of success*. New York: Random House.
15. Farrington, S.M. (2012). Does Personality Matter For Small Business Success? *South African Journal of Entrepreneurship and Management Science*, 15 (4), pp. 382-401.
16. Forbes, D.P. (2005b). The effects of strategic decision making on entrepreneurial self efficacy, *Entrepreneurship Theory and Practice*, 29 (5), pp. 599-626.
17. Ghafari, M., Baboli, A.T. & Sadr, M.M. (2014). Studying impact of personality traits on intention to entrepreneurship between university of Isfahan's personnel, *Middle-East Journal of Scientific Research*, 19 (11), pp. 1432-1438.
18. Gosling, S.D., Rentfrow, P.J. & Swann, W.B. (2003). A very brief measure of the big five personality domains, *Journal of Research in Personality*, 37 (6), pp. 504-528.
19. Harrison, M.M., Neff, N.L., Schwall A.R. & Zhao, X. (2006). A Meta-analytic Investigation of Individual

- Creativity and Innovation. Paper presented at the 21st Annual Conference for the Society for Industrial and Organizational Psychology, Dallas, Texas.
20. Hartman, R.O. & Betz, N.E. (2007). The Five-Factor Model and Career Self-Efficacy General and Domain-Specific Relationships, *Journal of Career Assessment*, 15 (2), pp. 145-161.
 21. Haynie, J.M., Shepherd, D., Mosakowski, E. & Earley, P.C. (2010). A situated metacognitive model of the entrepreneurial mindset, *Journal of Business Venturing*, 25, pp. 217-229.
 22. Hmieleski, K.M. & Baron, R.A. (2008). When Does Entrepreneurial Self-Efficacy Enhance Versus Reduce Firm Performance? *Strategic Entrepreneurship Journal*, 2, pp. 57-72.
 23. Horngren, C.T., Datar, S.M. & Foster, G. (2006). *Cost Accounting: A managerial Emphasis*. 12th edition, USA: Prentice Hall.
 24. Ireland, R.D., Hitt, M.A. & Sirmon, D.G. (2003). A model of strategic entrepreneurship: the construct and its dimensions, *Journal of Management*, 29, pp. 963-990.
 25. Khedhaouria, A., Gurău, C. & Torrès, O. (2014). Creativity, self-efficacy, and small-firm performance: the mediating role of entrepreneurial orientation, *Small Business Economics*.
 26. Kickul, J., Gundry, L.K., Barbosa, S.D. & Whitcanack, L. (2009). Intuition versus analysis? Testing differential models of cognitive style on entrepreneurial self-efficacy and new venture creation process, *Entrepreneurship: Theory and Practice*, 3 (2), pp. 439-453.
 27. Klyver, K. & Thornton, P.H. (2010). The cultural embeddedness of entrepreneurial self efficacy and intentions: A cross-national comparison. Paper presented at Fourth Global Entrepreneurship Monitor Research Conference, London, United Kingdom.
 28. Koenig, M., Schlaege, L.C. & Gunkel, M. (2013). *Entrepreneurial traits and strategy in the performance of owner-manager led firms: a meta-analysis*. Academy Of Management Annual Meeting Proceedings, pp. 1151-1156.
 29. Komarraju, M. & Karau, S.J. (2005). The relationship between the big five personality traits and academic motivation, *Personality and Individual Differences*, 39, pp. 557-567.
 30. Leitner, K. & Guldenberg, S. (2010). Generic Strategies and Firm Performance in SMEs: A Longitudinal Study of Austrian SMEs, *Small Business Economics*, 35 (2), pp. 169-189.
 31. Markman, G.D., Baron, R.A. & Balkin, D.B. (2005). Are perseverance and self-efficacy costless? Assessing entrepreneurs' regretful thinking, *Journal of Organizational Behavior*, 26 (1), pp. 1-19.
 32. Martinez, C. & Bryant, P.T. (2014). What Keeps Entrepreneurs Entrepreneurial? A Regulatory Focus Theory of Entrepreneurial Persistence, *Academy of Management Proceedings*.
 33. Mauer, R., Neergaard, H. & Kirketerp Linstad, A. (2009). Self-efficacy: Conditioning the entrepreneurial mindset, *International Studies in Entrepreneurship*, 24, pp. 233-257.
 34. McGhee, R.L., Ehrler, D.J., Buckhalt, J.A. & Phillips, C. (2012). The Relation between Five Factor Personality Traits and Risk-Taking Behavior in Preadolescents, *Psychology*, 3 (8), pp. 558-561.
 35. Mohutsiwa, M. (2012). *Strategic Entrepreneurship and Performance of Small and Medium Enterprises in South Africa*. Master's Thesis. University of Witwatersrand.
 36. Munoz, C.A., Mosey, S. & Binks, M. (2011). Developing opportunity-identification capabilities in the classroom: visual evidence for changing mental frames, *Academy of Management Learning & Education*, 10 (2), pp. 277-295.
 37. Nadkarni, S. & Herrmann, P. (2010). CEO performance, strategic flexibility, and firm performance: the case of the Indian business process outsourcing industry, *Academy of Management Journal*, 53 (5), pp. 1050-1073.
 38. Neneh, B.N. (2011). The impact of entrepreneurial characteristics and business practices on the long term survival of small and medium enterprises (SMEs). Master's thesis. University of Free State.
 39. Neneh, B.N. (2012). An exploratory study on entrepreneurial mindset in the small and medium enterprise (SME) sector: A South African perspective on fostering SME success, *Africa Journal of Business Management*, 6 (9), pp. 3364-3372.
 40. Neneh, N.B. & Van Zyl, J.H. (2012). Achieving optimal business performance through business practices: Evidence from SMEs in selected areas in South Africa, *South African Business Review*, 16 (3), pp. 118-144.
 41. Njeru, W.P. (2012). *The Effect of Entrepreneurial Mind Set On the Performance of Manufacturing Businesses in Nairobi Industrial Area*. Ph.D. Thesis. Jomo Kenyatta University.
 42. Oladapo, V. & Onyeaso, G. (2012). An empirical investigation of the impact of luck on small business performance: dynamic panel data evidence, *International Journal of Management & Marketing Research (IJMMR)*, 5 (3), pp. 29-41.
 43. Ong, J.W. & Ismail, H.B. (2012). Entrepreneurial traits and firm serendipity-seeking on SMEs' performance: the effect of firm size, *Journal of Enterprising Culture*, 20 (3), pp. 265-286.
 44. Oyeniyi, O.J. & Adeniji, A.A. (2010). Entrepreneur psychological traits and performance: implications for Nigerian non-oil SMEs exporting companies, *Review of Economic and Business Studies*, 3 (2), pp. 211-220.
 45. Ozgen, E. (2011). Porter's diamond model and opportunity recognition: A cognitive perspective, *Academy Of Entrepreneurship Journal*, 17 (2), pp. 61-76.
 46. Patterson, F., Kerrin, M. & Gatto-Roissard, G. (2009). *Characteristics and Behaviours of Innovative People in Organizations*. Literature Review prepared for the NESTA Policy & Research Unit, London: NESTA, pp. 1-63.
 47. Piedmont, L.R. (1998). *The Revised NEO Personality Inventory: Clinical and Research Applications*. New York: Plenum Press.

48. Poon, J.L., Ainuddin, R.A. & Junit, S.H. (2006). Effects of Self-concept Traits and Entrepreneurial Orientation on Firm Performance, *International Small Business Journal*, 24 (1), pp. 61-82.
49. Roper, S. (1998). Entrepreneurial Characteristics, Strategic Choice and Small Business Performance, *Small Business Economics*, 11 (1), pp. 11-24
50. Saeed, R., Nayyab, H.H. & Rashied, H. (2013). Who Is the Most Potential Entrepreneur? A Case of Pakistan, *Middle-East Journal of Scientific Research*, 17 (9), pp. 1307-1315.
51. Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities, *Organization Science*, 11 (4), pp. 448-469.
52. Sinclair, R.F. (2012). *Creating an entrepreneurial frame of mind*. ProQuest Dissertation. University of Louisville.
53. Subrahmanya, M.B. (2011). Technological Innovations and Firm Performance of Manufacturing SMEs: Determinants and Outcomes, *ASCI Journal of Management*, 41 (1), pp. 109-122.
54. Thal, A.E.J. & Bedingfield, J.D. (2010). Successful project managers: an exploratory study into the impact of personality, *Technology Analysis & Strategic Management*, 22 (2), pp. 243-259.
55. Torres, J.L. & Watson, W. (2013). An examination of the relationship between manager self efficacy and entrepreneurial intentions and performance in Mexican small businesses, *Contaduriay Administracion*, 58 (3), pp. 65-87.
56. Yesil, S. & Sozibilir, F. (2013). An Empirical Investigation into the Impact of Personality on Individual Innovation Behaviour in the Workplace, *Procedia – Social and Behavioral Sciences*, 81, pp. 540-551.