"Entrepreneurial orientation and its impact on firm growth amongst SMEs in South Africa"

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47	**1**	**5**

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ENTREPRENEURIAL ORIENTATION AND ITS IMPACT ON FIRM GROWTH AMONGST SMES IN SOUTH AFRICA

Abstract

Entrepreneurial orientation (EO) has been widely touted as a fundamental ingredient for enhancing firm growth. Consequently, this aimed at examining the impact of EO and its dimensional variables (innovativeness, risk-taking, and proactiveness) on SME growth (employment, sales, and asset growth). Using information from 285 SMEs, the results obtained indicated that while EO had a significant positive association with SME growth (employment and sales growth), most SMEs show a moderate level of EO. Also, following the EO dimensions, the findings established the emergence of proactive innovation (a combination of proactiveness and innovativeness) which showed a significant positive association on sales growth. Risk-taking was the only factor that showed a significant influence on employment and asset growth. This study also showed that controlling for the effect of firm age on growth significantly reduced the error of predicting sales growth by 2.3%. This study culminates with recommendations on enhancing EO amongst SMEs in South Africa.

Keywords	entrepreneurial orientation, innovativeness, risk-taking, proactiveness, SMEs, South Africa
JEL Classification	M13, L25, D12

INTRODUCTION

One key indicator of a strong and booming economy is the presence of a well-established small and medium-sized enterprises (SMEs) sector. The SME sector has been widely recognised as an essential driver of economic growth, innovation, employment, and social integration in both developed and developing countries (Neneh & Smit, 2013). As such, many governments and policy makers all around the world are focusing on developing the SME sector so as to promote economic growth and development. However, irrespective of all the efforts put in place by the South African government to nurture and grow the SME sector, the country's SME sector is characterised by high SME failure rates. Moreover, SMEs in South Africa do not grow but rather assume a survivalist position (Fatoki, 2014; Neneh & Van Zyl, 2014), with over 75% of newly established SMEs never attaining real success or maturity (Fatoki & Garwe, 2010). In addition to the high failure, low survival, and low growth rates of SMEs, South Africa faces a high unemployment rate, currently estimated at 26.5% (Trading Economics, 2017). Fatoki and Garwe (2010) pointed out that without the growth and sustainability of SMEs in South Africa, the country risks economic stagnation. As such, promoting firm growth is very imperative as it will lead to sustainable job creation, which is critical to South Africa's economic prosperity and growth.

Firm growth is a fundamental driver of wealth creation, employment creation, and economic growth and development in every economy around the world. Growth is closely related to the employment creation, and fast growing firms create job opportunities which are essential for the success of every economy (Dobbs & Hamilton, 2007). Neneh and van Zyl (2014) emphasise that firm growth is the most vital source of new jobs and is considered a valuable measure of entrepreneurial success. Welsch, Price, and Stoica (2013) establish that SME owners are usually more focused on attaining survival rather than pursuing growth. Likewise, Levie and Autio (2013) add that if entrepreneurs do not have any intention of growing their businesses, their businesses will most probably not grow, given that achieving growth is very difficult. In South Africa, most SMEs are unable to reap the rewards of growth as only a small number of SMEs depict high growth potentials and contribute to the bulk of job creation (Neneh & Smit, 2013). This further emphasises the need for enhancing the growth potential amongst SMEs in South Africa.

One way of fostering SME growth is by enhancing their level of entrepreneurial orientation (EO). EO has been identified to underpin a firm's growth (Ljungquist & Ghannad, 2008). Basile (2012) defined EO as the strategic processes, practices, and decisions that decision makers use when formulating the organisational purpose of the firm, and sustain its vision, in order to create a sustainable competitive advantage . Researchers (Neneh, Van Zyl, & Van Noordwyk, 2016; Rauch et al., 2009) elucidate that EO is one of the most widely used concepts in strategy literature for enhancing firm competitiveness, growth, success, profitability and performance. Furthermore, EO is a basis of competitive advantage, and thus act as a remedy to the challenges facing businesses that desire to attain a sustained competitive advantage (Neneh et al., 2016). Hence, EO is centred on the behaviour that can be used as a tool for enhancing SME growth in South Africa.

Nonetheless, it is imperious to note that even though EO has been widely established as having a positive influence on firm performance and growth, this EO to performance/growth relationship has been identified to be contextual in nature (Rauch et al., 2009). This is because the exogenous and endogenous factors affecting a firm can significantly influence the nature or degree of the relationship (Anderson & Eshima, 2013). In South Africa, little or no studies have examined the relationship between EO and firm growth. It is, therefore, vital that in using EO as a means of promoting SME growth in South Africa, the EO-growth relationship in the context of South Africa should be examined as the magnitude or direction of the relationship can differ from other studies carried out in different contextual settings around the world. Furthermore, Rauch et al. (2009) expound that the EO-growth relationship can be affected by several moderating factors such as firm age, environmental dynamism, national culture, and strategy pursued. Of these factors, firm age has been identified by many researchers (Coad et al., 2013; Rauch et al., 2009; Haltiwanger et al., 2013) as a key factor to control for when examining firm performance and growth. However, EO performance studies in South Africa (Callaghan & Venter, 2011; Fatoki, 2014; Neneh et al., 2016), and Africa at large (Alarape, 2013; Le Roux & Bengesi, 2014) have not controlled for the effect of firm age. Controlling for the effect of firm age on the association between EO and growth will strengthen the explanation this association from a developing country's perspective.

In an attempt to use EO as a tool for fostering SME growth in South Africa, this study seeks to examine the impact EO and its dimensional variables (innovativeness, risk-taking, and proactiveness) have on SME growth when controlling for the effect of firm age. This study is particularly important because it will focus on both the one-dimensional and multi-dimensional constructs of EO to determine if each of the EO dimensions, as well as the overall EO index relate differently to firm growth.

1. ENTREPRENEURIAL ORIENTATION (EO)

The concept of EO was developed by Miller (1983), Covin and Slevin (1989) based on the three dimensions of EO (i.e., innovativeness, proactive- ness, and risk-taking). These researchers uphold that these dimensions work together as a coherent whole, to provide a business with the needed strategic orientation for success, and such should be viewed as a one-dimensional measure in entrepreneurship research. Lumpkin and Dess (1996)

further expanded the model to a five-factor model by adding two factors (autonomy and competitive aggressiveness). These researchers observed that a firm can have diverse combinations of the five EO dimensions, given that EO dimensions vary independently from each other. The combination of dimensions used in this study is discussed below.

2. EO DIMENSIONS

For the purpose of this study, only the three original dimensions of EO will be explored. This is because the original three factors of EO have been widely used and validated (Anderson & Eshima, 2013; Gürbüz & Aykol, 2009; Tang et al., 2008) thus creating a strong conceptual basis for adopting the model in this study. Furthermore, even though the additional two dimensions by Lumpkin and Dess (1996) have received significant consideration (Hughes & Morgan, 2007; Callaghan & Venter, 2011), there have been some concerns of indistinguishable overlaps in the dimensions (Tang et al., 2008). Concerns regarding the distinctiveness between proactiveness and competitive aggressiveness have been explicated in many studies (Covin et al., 2006; Tang, et al., 2008) that have failed to include competitive aggressiveness in the EO model. In line with these studies, the original three-factor EO model was deemed as the most suitable for use in this study.

2.1. Innovativeness

Innovativeness in a firm generally entails the introduction of new ideas that can allow the firm to improve its product or service offering. Mirela (2008) found innovation to be a vital factor in survival, growth, development, and success of a business. Furthermore, Calvo (2006) focused on small, young, and innovative Spanish firms and found that while innovation had a positive and significant effect on sales and productivity growth, it had a negligible impact on employment growth. Deschryvere (2014) reported a positive association between continuous product and process innovators and sales growth. Masona, Floreania, Miania, Beltramea, and Cappellettoa (2015) reported a positive association between innovativeness and firms' performance. Conversely, Neneh (2016) fail to find any significant association between inno-

vativeness and firm performance. Hence, given that innovation has been found to enhance a firm's success, survival and performance, recognizing and acknowledging innovativeness as a firm-level competence is particularly important because, if harnessed effectively, should result in a superior competitive advantage for businesses. Based on this discussion, it is hypothesized that there is a significant positive association between the EO dimension of innovativeness and firm growth.

2.2. Proactiveness

Proactiveness is defined by Rauch et al. (2009:763), as "an opportunity-seeking, forward-looking perspective characterised by the introduction of new products and services ahead of the competitions and acting in anticipation of future demand". Proactive firms generally have a greater understanding of market dynamics and quickly respond to market signals (Hughes & Morgan, 2007). Adopting a proactive business approach enables businesses to identify and evaluate new opportunities as well as monitor market trends, and thus put the business in a superior position to exploit identified market opportunities ahead of the competition. Proactiveness is vital to firms because it enables them to be the first movers in the business environment, thus giving them an advantage of setting the pace and reaping the rewards (Du et al., 2010; Lumpkin & Dess, 2001). Du et al. (2010) found that proactiveness has a relationship with firm growth, though this relationship is partially mediated by ISO certification. Also, Gürbüz and Ayko (2009) established that proactiveness was significantly associated to both the employment and sales growth of small businesses. Following this discussion, we expect a positive association between the EO dimension of proactiveness and firm growth.

2.3. Risk-taking

Risk-taking is defined as "the capacity of the entrepreneur to perceive risk at its inception and to find avenues to mitigate transfer or share the risk" (Ogunsiji & Kayode, 2010, p. 195). Risk-taking has also been coined as the ability and willingness of a firm to pursue calculated and planned business opportunities in the marketplace, even though outcomes of these opportunities are uncertain

(Lumpkin & Dess, 2001). This author observed that entrepreneurs take calculated risk by ensuring that the odds are in their favour through putting in place strategies such as partnering with business partners, investors and suppliers, to share and bear their inherent financial and business risk. The role of risk-taking in EO can also be established from its central position in entrepreneurial behavior (Quaye & Acheampong, 2013). Neneh (2011) established that risk-taking has a positive influence on the long-term survival of SMEs. Likewise, Jalali et al. (2014) found that risk-taking had a strong positive association to firm performance and growth-profitability. Conversely, Gürbüz and Aykol (2009) established that risk-taking has a significant negative relationship with sales growth. Also, Zhou and de Wit (2009) did not find any significant relationship between risk-taking and employment growth. However, Hughes and Morgan (2007) explicated that firms with risk-averse behaviors have poorer performance because they are not willing to capture and take advantage of market opportunities. Following this discussion, we expect a positive association between the EO dimension of risk-taking and firm growth.

2.4. EO and firm growth

While EO has been identified to underpin firm's growth, several studies on EO- growth nexus have provided mixed results based on the aggregated one-dimensional measure of EO. For example, Gürbüz and Aykol (2009) have established that EO based on innovativeness, risk-taking and proactiveness, has a positive effect on both employment and sales growth. However, Moreno and Casillas (2008) fail to find any direct association between EO and sales growth in Spanish SMEs. Zampetakis et al. (2011) established that firms with high EO perform turn to better than firms with low EO. However, it depends on the context, as EO needs to be linked to other business practices in order to strengthen its positive influence on firm performance. It should also be noted that while the different components of EO are linearly summed to provide a one-dimensional EO measure, each of the dimensions has a varying effect on firm growth (Lumpkin & Dess, 2001). Worthy of note is also the fact that SMEs can either show all or only some of the EO dimensions and the relationship of these dimensions with firm growth vary in strength and direction (Lumpkin & Dess, 2001).

In examining the EO growth relationship, this study lays emphasis on the need of control for the influence of firm age. Extant studies (Coad et al., 2013; Rauch et al., 2009; Haltiwanger et al., 2013) have shown that firm age plays an important role in the growth of a firm. For example, Coad et al. (2013) showed that although firm growth generally increases with time, the growth outcomes tend to vary significantly with the age of the firm. This view is also supported by evidence from Haltiwanger et al. (2013) which show that younger firms tend to have a greater net effect on employment growth than their older counterparts, even though older firms might be larger in size. Furthermore, Coad et al. (2013) explicated that despite the fact that older firms were more effective at transforming sales into other growth outcomes, their sales generally declined with age, thus negatively affecting other growth outcomes. As such, it is necessary to uniquely isolate and control for the influence of firm age when evaluating how EO affects firm growth (employment growth and sales growth) as the age could play an important role in the SME growth dynamics.

3. METHODOLOGY

3.1. Sample and data collection

The empirical approach comprised of data collection using self-administered questionnaires. The study was conducted in the Mangaung Metropolitan Municipality (Bloemfontein, Botshabelo, & Thaba'Nchu) in the Free State Province in South Africa. In order to ensure content validity, a pilot study was conducted using two different groups of six SME owners through structured interviews. The questionnaire was structured to include the three EO dimensions (innovativeness, proactiveness, and risk-taking) and firm growth (sales growth, asset growth and employment growth).

The sample size for the study was made up of 285 SMEs. Stratified sampling and snowball sampling techniques were used. Stratified sampling method was used, with the three locations forming the basis for stratification. Afterwards, snowball sampling was applied to the preliminary list of entrepreneurs in the strata, as they referred the researchers to others entrepreneurs they know who also met the selection criteria.

3.2. Measures

3.2.1. EO and its dimensional variables

EO dimensions were measured using a multi-item scale, with 3-items for each dimension. These items were selected from the multidimensional EO scale of Hughes and Morgan (2007) which is structured in a seven-point Likert-type scale. However, for the purpose of this study, the items were rebuilt to a five-point Likert-type scale following extant studies by Alarape (2013). This approach was used in order to classify the SMEs EO levels in terms into three categories (i.e. low, medium, high) as explicated by Alarape (2013). EO levels above 4 were considered as high, those below 3 consider low, and moderate otherwise. Moreover, similar to prior studies (Fatoki, 2014; Zampetakis et al., 2010), these three subscales were linearly combined to form a one-dimensional measure of EO referred to as the EO index in this study.

3.2.2. Firm growth

A meta-analysis by Levie and Autio (2013) showed that firm growth has been widely measured using asset growth, sales growth and employment growth. As a result, this study used these three components as measures of firm growth. Self-reported data by means of a questionnaire was used to obtain data on all three constructs of firm growth. Self-reported data was deemed viable in this scenario owing to the fact that SME owners/managers are usually reluctant in providing detailed financial statements to researchers (Fatoki, 2014; Le Roux & Bengesi, 2014). The respondents were asked to indicate the relative increase in their employees, sales, and assets, based on the items provided. Sales growth and asset growth were then categorized by indicating whether the business experienced an increase, decrease, or stayed the same. Because employment data was more objective, the employment growth rate was computed following prior studies (Davis et al, 2007; Haltiwanger et al., 2013) as follows:

$$\text{Employment Growth} = \frac{E_i - E_t}{X_i}, \quad (1)$$

where E_i – the number of employees excluding the owner at firm creation, E_t – the number of employees excluding the owner at the time the questionnaire was answered, and $X_i = 0.5 \cdot (E_i + E_t)$.

3.2.3. Statistical analyses

This study made use of descriptive and inferential analyses. Firstly, construct validity and reliability analyses were performed using confirmatory factor analysis and analysis of internal consistency (Cronbach's Alpha) to ensure that all items were suitable for statistical analysis. The measurements of central tendency (mean & median) and variability (standard deviation) were used to provide a detailed description of the variables. Subsequently, correlation, regression analysis and structural equation modelling analyses were performed to determine the relationships between the one-dimensional and multi-dimensional constructs of EO with firm growth.

4. RESULTS AND DISCUSSION

4.1. Profile of respondents

285 questionnaires were distributed to entrepreneurs, only 200 useable questionnaires were returned, indicating a response rate of 70.2%. The respondents comprised of 56.5% males and 43.5% females. Most of the respondents were between the ages of 31 to 50. Sixty-five respondents have Matric and 135 respondents have post-matric qualifications. Moreover, 26% of the businesses had been in existence for between one to three years, 28% from four to five years, and 17% greater than 10 years. 50.5% of the respondents reported having between one to five employees (excluding themselves). Descriptive results of the respondents EO is presented in Table 1 below.

4.2. Descriptive statistics of EO dimensions

Table 1 depicts the descriptive statistics for the EO dimensions and the overall EO index. The mean for the three measures of innovativeness is 3.372 and the results show that SMEs are moderate in launching new product lines or modifying existing product lines. This is consistent with findings by Alarape (2013) who established that SMEs in South-Western Nigeria are moderately innovative in terms of either marketing new product lines or making changes into the product lines. Conversely, Fatoki (2014) found that SMEs in South Africa were weak in carrying out on research and devel-

Table 1. Descriptive statistics for EO dimension items and EO Index

Factors	Mean	Std. Dev	Factor 1	Factor 2
Innovativeness				
We actively introduce improvements and innovations in our business such as introducing new product lines or making changes to the product line	3.475	0.9401	0.860	–
Our business seeks out new ways to do things through research and development	3.390	0.9719	0.807	–
Our business is creative in its methods of operation (process innovation)	3.250	1.0454	0.779	–
Innovativeness Index	3.372	0.8559	–	–
Risk-taking				
The term 'risk taker' is considered a positive attribute for people in our business	2.595	1.4167	–	0.801
Risk-taking is powered by intuition; actions are taken without recourse to forethought and research	2.945	1.2188	–	0.890
Our business has a strong preference for high-risk projects with chances of high return	3.100	1.2481	–	0.698
Risk Taking Index	2.884	1.0464	–	–
Proactiveness				
In dealing with competitors, my company initiates actions rather than responding to its major competitors	3.165	1.1162	0.539	–
We excel at identifying opportunities to stay ahead of our competitors	3.250	1.0211	0.680	
Environmental scanning is a continuous exercise	3.405	1.0680	0.629	–
Proactiveness Index	3.274	0.8078	–	–
Overall EO Index	3.176	0.6948	–	–
Eigenvalue	–	–	3.616	1.636
Percentage of variance explained	–	–	40.173	18.176
Reliability — Number of items			6	3
Reliability — Cronbach Alpha			0.813	0.731

opment. This could, however, be because he focused on the retail sector as oppose to this study that comprised of SMEs from different sectors.

With regards to risk-taking, the results depict that the mean for the three measures of risk-taking is 2.884. The respondents do not consider the term risk-taker to be a positive attribute for their businesses. Also, the SMEs are weak with respect to taking actions that are neither extensively planned nor driven by intuition before implementation. However, they are moderate risk-takers with preferences for high-risk projects. Conversely, Fatoki (2014) observed that a weak preference for high-risk projects among micro businesses in South Africa. Since risk-taking is a vital factor for firm performance and growth-profitability (Jalali et al., 2014), it becomes important for SME owners in South Africa to increase their aptitude for risk-taking in their pursuit of success.

Also, the mean for the three measures of proactiveness is 3.274 and the results illustrate that the SMEs moderately consider environmental scanning as a continuous exercise, as well as identifying opportunities to stay ahead of their competitors. This suggests that most SMEs are followers and not market leaders or pioneers. Similarly, Alarape (2013) pointed out that SMEs do not have a strong tendency to be get ahead of competitors. This is because most SMEs are more likely to be reactive, rather than be proactive due to their attitude towards risk. Furthermore, the mean for the overall EO index is 3.176, depicting that the overall level of SMEs EO is moderate. Similarly, Fatoki (2012) observed an overall EO of 3.27 amongst SMEs in the South Africa, while Yoon (2012) revealed that SMEs in South Korea had an overall EO of 3.53. This result suggests that SMEs in South Africa need to enhance their level of EO by developing strategies to incorporate EO into their business processes.

Moreover, the results show that two factors were extracted following the principal component analysis. These extracted components make up 58.349% of the variation in the total sample (cumulative variance). Factor one is a combination of innovativeness and proactiveness and has an Eigenvalue of 3.616 and the percentage of variance explained is 40.173%. Factor two with an Eigenvalue of 1.63 and a percentage of variance of 18.176%, is composed of risk-taking and consists of three items. These findings are in line with those of Soininen et al. (2012) whereby innovativeness and proactiveness were grouped under factor one with a variance of 46.9% and risk-taking grouped in factor two with a variance of 13.9%. Similarly, component analysis by Yoo (2001) also grouped innovativeness and proactiveness as one factor and risk-taking as the second factor. However, both Soininen et al. (2012) and Yoo (2001) did not perform cross-sectional analysis based on the two-factor constructs of EO established from the factor analysis. As such, no operational definition for factor one has been provided. Nonetheless, for the purpose of this study, factor one henceforth will be termed "proactive innovation". Proactive innovation generally refers to an innovation approach in which a firm continuously delineates new opportunities and challenges by proactively seeking different perspectives and tapping into inside and outside knowledge bases as a means of generating insights and ideas for new products, services, solutions, and even new business models (Shafaeddin, 2014). Furthermore, Shafaeddin (2014) expounds that proactive innovation firms commercialise their innovations far ahead of their followers to create value for buyers. Cronbach's alpha values of 0.813, and 0.731 were obtained for proactive innovation, and risk-taking, respectively. Hence, all constructs had an acceptable level of internal consistency (Alpha > 0.7).

4.3. Correlation matrix of EO dimensions

Table 2. Correlation matrix for EO dimension construct and EO index

Factors	Correlation		
	Proactive Innovation	Risk Taking	EO Index
Proactive Innovation	1	–	–
Risk Taking	0.348***	1	–
EO Index	0.861***	0.750***	1

Table 2 presents the correlation coefficients of the two established EO constructs and the overall EO index to illustrate interrelationships among these constructs. Proactive innovation $(r=0.861)$ and risk-taking $(r=0.750)$ both have a significant positive correlation with the overall EO. These results are in accordance with a study by Covin and Slevin (1991), who established that all the three EO dimensional variables are positively related to the firm's EO. Also, Yoon (2012) established that the overall EO was highly correlated with innovativeness $(r=0.83)$, proactiveness $(r=0.85)$, and risk-taking $(r=0.76)$. Both proactiveness and innovativeness have a strong correlation with the firms overall EO which aligns to the correlation for proactive innovation established in this study indicating that combining the two factors have almost an identical effect on the firms EO as when separated. This can be supported by the fact that proactiveness is a core constituent of innovativeness. The correlation obtained for risk-taking in this study is in line with that obtained by Yoon (2012). The unequal strengths between proactive innovation and risk-taking with the firms' overall EO is in line with existing studies (Lumpkin & Dess, 1996; Hughes & Morgan, 2007) that have established an unequal effect of EO constructs on the overall EO of a firm and thus suggest that an equal importance should not be placed on the three EO dimensional variables since they have different effects on EO.

4.4. Association between EO dimensions and firm growth

Table 3 shows the regression analysis of the EO constructs and firm growth. The probability of the F-value for all three models is significant at the 5% (model A) and 1% (model B & C) levels indicating that there is a significant relationship between the set of all the established constructs of EO plus firm age and the three components of firm growth. The R^2-change and the F-value change indicate the changes in the predicting power of each model after controlling for firm age. For Model A, the R^2-change value is 0.000 and is insignificant. This indicates that adding firm age to the model does not have any significant effect on the predicting power of employment growth by the established constructs of EO. This is contrary to the views of Haltiwanger et al. (2013) that firm age has an in-

Table 3. Regression analysis of EO dimension constructs and firm growth

Variable	Model (A)		Model (B)		Model (C)	
	Beta	t-value	Beta	t-value	Beta	t-value
Intercept	–	8.481***	–	9.876***	–	1.512
Proactive Innovation	0.013	0.017	0.239	3.281***	0.097	1.329
Risk-Taking	0.175	2.326**	–0.028	–0.389	0.293	4.029***
Firm Age	0.001	0.012	–0.151	–2.207**	0.113	1.656
R2	0.029		0.085		0.088	
Adjusted R2	0.014		0.071		0.074	
Durbin-Watson	1.696		1.849		1.684	
F – Value (sig)	3.231(0.042)**		6.071 (0.001)***		6.282 (0.000)***	
R2 Change	0.000		0.023		0.013	
F – Value Change (sig)	0.000 (0.990)		4.872 (0.028)**		2.743 (0.088)	

Note: Model (A) uses employment growth as the dependent variable. Model (B) uses sales growth as the dependent variable and Model (C) uses asset growth as the dependent variable. *** Sig at 1%, ** Sig at 5%.

fluence on employment growth. For Model B, the R2-change value is 0.023 and is significant at the 5% level (F = 4.872, p < 0.05). This indicates that adding firm age to the model significantly reduces the error in which the established EO constructs predict sales growth by 2.3%. The firm age and sales growth have a significant negative relationship. The negative coefficient (–0.151) shows that older firms tend to perform worse in terms of sales growth. This supports the findings of Coad et al. (2013) that sales growth seems to deteriorate with firm age. For Model C, the R2-change value is 0.013 and is insignificant (F = 2.743, p > 0.05), indicating that adding firm age to the model has no significant effect on how the established EO constructs predict asset growth.

From **Model A**, it is observed that only risk-taking has a significant association with employment growth. Entrepreneurs who have a high degree of risk-taking propensity always continuously take action for growing and expanding their business. As such, they are not afraid to employ more people into the business and acquire assets that are vital for enabling the business to achieve profitability. This is supported by the findings from Eline (2013) which established that an entrepreneur's risk-taking propensity has a significant positive influence on his/her employment growth ambition. Employment growth ambition, in turn, has a positive effect on the actual employment

growth of a firm as established by Neneh and van Zyl (2014). However, the findings are contrary to Zhou and de Wit (2009) who did not find significant relationship between risk-taking and employment growth. The difference in results could be explained by the differences in sample size as Zhou and de Wit (2009) used a sample size that is about five times larger than that for this study.

In Model B, only proactive innovation has a significant association with sales growth. Prior studies (Calvo, 2006; Gürbüz & Aykol, 2009) have shown that both proactiveness and innovativeness have a positive effect on sales growth. It is therefore not surprising that the combined effect of the two factors has a significant impact on sales growth. Entrepreneurs with proactive innovation have an inclination for continuously seeking and assessing new market opportunities, turn to introduce new products or services for future demand and contingencies, and overcoming competitors' actions. As such, they are able to create a first-mover advantage vis-a-vis their competitors, which can be evident in actual growth in sales. According to McGrath (2013), firms no longer have a sustainable competitive advantage which used to come from innovation. She argues that in the current business environment, successful firms are those which grasp opportunities quickly, exploit them fast, and move on once they are exhausted all options. This is the behaviour of firms with pro-
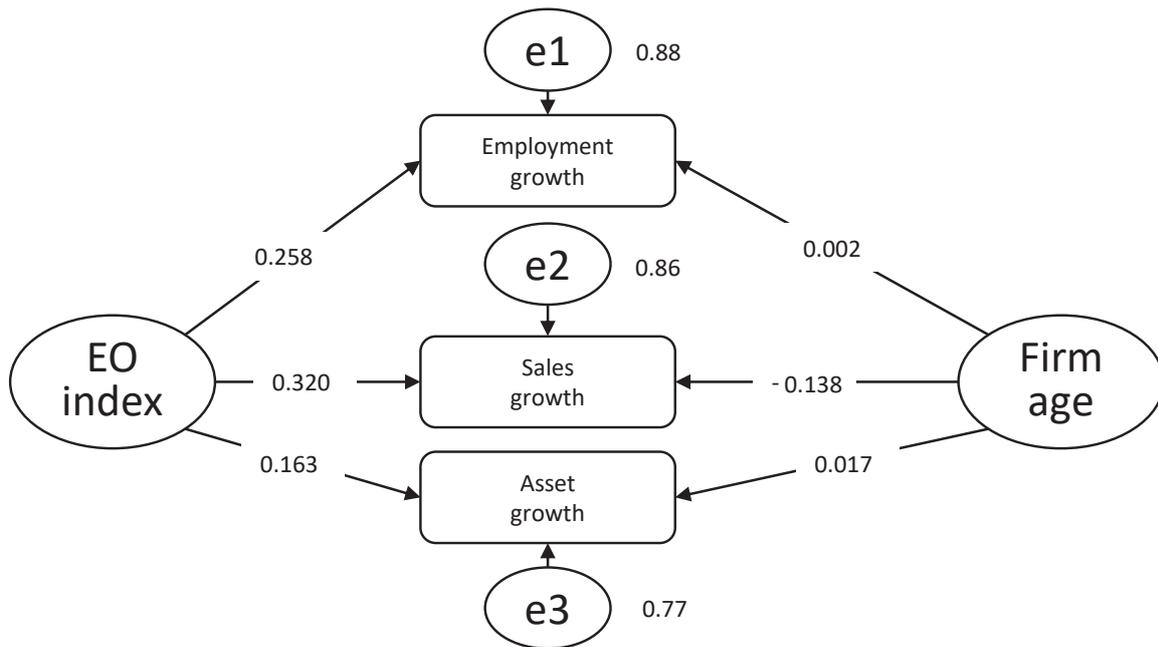
Figure 1. Structural Equation Model (SEM) Path Diagram between Firm Growth and EO index

active innovation, which possibly explains why proactive innovation has a significant positive association with sales growth. In Model C, only risk-taking has a significant association with assets growth. This is congruent with the findings of Kose et al., (2004) who observed that risk-taking has a significant positive association with asset growth.

4.5. Structure equation model for EO index and firm growth

The following statistics were used to evaluate the fitness of the model: Goodness of Fit Index (GFI); comparative fit index (CFI), root mean square error of approximation (RMSEA), adjusted goodness of fit (AGFI); Root Mean Square Residual (RMR). These statistics were used because they adjust for model complexity as oppose to Chi-square statistics which is sensitive to model complexity (Runyan et al., 2008). The obtained values for

evaluating the fitness of the model are presented in Table 4 below.

The results in Table 4 indicate that all the obtained fitness indices for the model fall within the acceptable limits. As such, the proposed model fit the data well and can thus be used in examining the hypothesized paths. The path diagram is presented in Figure 1 while the significance of each of the relationships obtained in the path diagram is indicated in Table 5 below.

Figure 1 shows the various path coefficients that explain the relationship between all the firm growth components and EO index. The positive path coefficients suggests that an increase in the EO index of a firm will have a positive influence on the firm's growth potential both in terms of assets, sales, and employment. The significance of this association is shown in Table 5. However, as previously indicated, the association between the EO

Table 4. Goodness of fit for SEM model

Model fitness indices	Recommended value	Model values obtained
RMSEA	< 0.08	0.067
AGFI	> 0.90	0.931
CFI	> 0.90	0.976
GFI	> 0.95	0.979
RMR	< 0.07	0.025

Table 5. SEM associations between firm growth and EO index

SEM path for firm growth and EO index			Parameter estimate	Standard error	Critical ratio	P – Value
Employment growth	←	EO Index	0.258	0.090	2.862	0.004***
Asset growth	←	EO Index	0.163	0.096	1.706	0.088
Sales growth	←	EO Index	0.320	0.096	3.341	0.000***
Employment growth	←	Firm Age	0.002	0.022	0.013	0.910
Asset growth	←	Firm Age	0.017	0.037	0.462	0.644
Sales growth	←	Firm Age	-0.138	0.062	-2.226	0.026**

Note: *** Sig. at 1%; **Sig. at 5%

index and firm growth can often depend on contextual factors (Zampetakis et al., 2011). This is evident in this study as the path coefficient between the EO index and asset growth is positive, however, Alarape (2013) in another context found this path to be negative. Nevertheless, the path coefficients in this study consolidate the general EO literature which widely postulates that EO plays a central role in fostering firm growth (Gürbüz & Aykol, 2009; Neneh et al., 2016; Zampetakis et al., 2011).

Table 5 displays the causal relationship based on the components of firm growth and EO index after taking into consideration the effect of firm age. The results demonstrate that EO index has a significant causal association with employment growth and sales growth. These results suggest that the entrepreneur EO index determines the growth of the business. Since the effect of firm age was controlled for in the above model, it indicates that the association between EO and firm growth is always true irrespective of the age of the SME. These results are congruent with Gürbüz and Aykol (2009) who established that EO index had a positive association with firm growth. This confirms the view of Ljungquist and Ghannad (2008) that EO underpins a firms' growth. Firm growth, especially in terms of employment growth, is very critical in South Africa at the moment as the government is looking up to this sector to absorb the many unemployed youths. As such, the South African government should put in place policies that will improve EO in SMEs. Contrary to this study, a study by Moreno and Casillas (2008) failed to find any direct relationship between EO and sales growth.

CONCLUSION

This study established that while EO index has a significant positive relationship with employment growth and sales growth; the level of EO among SMEs is moderate. Also, regarding the EO dimensional variables, SMEs show a moderate level of proactiveness and innovativeness and a weak propensity for risk-taking. Interestingly, innovativeness and proactiveness were grouped into one factor (proactive innovation) following the factor analysis and consistent with existing studies (Soininen et al. 2012; Yoo, 2001). Proactiveness has been noted as a core constituent of innovation and existing literature has highlighted the importance of proactive innovation for businesses (Shafaeddin, 2014). As argued by McGrath (2013), firms need to continuously capture and exploit opportunities quickly to survive in the current business environment. As such, firms with proactive innovation are the most likely to thrive admits the current competitive business landscape. The significant influence of proactive innovation on sales growth supports these views. This is an interesting contribution to existing literature as the impact of proactive innovation on growth has not been examined. Also, taking into consideration the effect of firm age on firm growth, this study showed that firm age significantly reduced the error of predicting sales growth by 2.3%. However, firm age had no significant effect on the model for predicting employment growth and asset growth by the established EO

constructs. This shows the importance of controlling for the effect of firm age on sales growth as suggested by prior studies by Haltiwanger et al. (2013).

The moderate level of EO amongst SMEs is a call for concern because EO has been recognised as one of the strategies that can lead to sustained competitive advantage and enhance firm growth. With the high rate of unemployment and failure of SMEs in South Africa, creating sustainable jobs has become a top priority for the country's government. The significant relationship between EO and employment growth can have vital policy implications for addressing the unemployment issue in South Africa. More specifically, entrepreneurs should be provided an environment that promotes the propensity for risk-taking as it has been shown to significantly enhance the employment and asset growth of SMEs. It is, therefore, important for SME support services in South Africa to put efforts on enhancing EO among SMEs.

Future studies can fully develop the construct of proactive innovation as a unique dimension of EO taking into account the challenges of the contemporary business environment. Moreover, innovation and Proactiveness have been shown to be valuable strategic capabilities of firms that can interact with other types of firm internal and external strategic factors to advance firm performance. As such, future studies can use proactive innovation as a combined contingent factor to interact with other firm capabilities to provide new insights and configurations for advancing firm performance.

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