GENDER DIFFERENCES IN ENTREPRENEURIAL ORIENTATION AND PERFORMANCE: EVIDENCE FROM SOUTH AFRICA

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ABSTRACT

Entrepreneurial orientation (EO) is one of the most widely applicable concepts in strategy literature for advancing firm competitiveness, growth, and performance. While EO comprises of dimensions that can be natured and trained, prior literature has continuously supposed that female entrepreneurs are often secondary to their male counterparts with lower levels of EO. Additionally, women-owned businesses are often characterised as underperforming when compared to those of their male counterparts. However, in a world where women are now more educated than their male counterparts globally, such existing gender bias in EO and performance become questionable. As emerging trends from the developed world suggest that female entrepreneurs tend to outperform their male counterparts when certain factors are controlled for, this study set out to examine if there existed any gender differences in EO and performance of Small and medium enterprises (SMEs) in South Africa. Interestingly, the results indicate that women have a higher EO and also outperform their male counterparts. Additionally, education significantly improved the level of EO for women but not for men while prior business experience significantly enhances SME performance for both men and women with performance increasing more for women than for men. The paper culminates with a discussion of the possible implications of these findings.

INTRODUCTION

Over the years, there has been increasing popularity in academic literature on the need for small and medium-sized enterprises (SMEs) to be entrepreneurial, if they want to survive and grow (Martin and Javalgi, 2016; Lumpkin and Dess, 1996; Rauch, Wiklund, Lumpkin and Frese, 2009; Wales, Gupta and Mousa, 2013). This entrepreneurial behaviour is generally referred to in academic literature as entrepreneurial orientation (EO). EO is closely related to the propensity to take advantage of business opportunities, which has a positive effect on firm performance (Yoon, 2012; Radipere, 2013). EO is defined by Lumpkin and Dess (1996) as the processes, practices, and decision-making activities used by entrepreneurs that lead to the initiation of an entrepreneurial firm. EO is also viewed as the strategic processes, practices and decisions that key decision makers of a business use to enact their firm’s organisational purpose, sustain its vision, and create a competitive advantage (Basile, 2012; Mohutsiwa, 2012; Taylor, 2013; Wiklund and Shepherd, 2003). Mahmood and Hanafi (2013) established that EO is an important factor for business success. Rauch et al. (2009) and Fatoki (2014) emphasise that EO is a significant component of business success and profitability. Also, Radipere (2013) and Van Geenhuizen, Middel and Lassen (2008) observed that EO is a source of competitive advantage and thus act as a remedy to the problems facing businesses that desire to achieve a sustained competitive advantage. Furthermore, studies (Wiklund and Shepherd, 2005; Rauch et al.,
have shown that businesses that have high EO are more willing to take risk, more innovative and highly proactive towards unexploited opportunities in the marketplace and opt for a new mass of buyers and thus are better positioned to manage the impact of the macroeconomic shocks on their business activities.

Gender theory postulates that men and women have different approaches to managing their businesses (Quaye, Acheampong and Asiedu, 2015). Shinnar, Giacomin and Frank (2012) stressed that there exist gender differences in entrepreneurial abilities, intentions and other entrepreneurial attributes. Recio, Costa, and Pinar (2014) found significant differences in the entrepreneurial behaviour amongst students due to gender differences. Tsyganova and Shirokova (2010) found that the level of male entrepreneurial activity is higher than that of women. Johnson and Powell (1994) observed a significant difference between male and female entrepreneurial behaviour on the success of their businesses because of their EO in decision contexts. Also, Ayub, Razzaq, Aslam and Iftekhar (2013) found that females and males differ in their level of EO and that these differences might be caused by gender differences in EO preferences. Additionally, a study by Fellnhofer, Puimalainen and Sjögrén (2016) on EO and performance established that while the self-evaluated work performance of females is higher than that of males, females tend to identify their individual EO as lower than that of males. Thus, the study of gender differences should be taken into consideration when encouraging entrepreneurially oriented behaviour within businesses.

PROBLEM STATEMENT

In South Africa, recent statistics reveal an 11% increase in the number of women owned businesses and women entrepreneurs over the past two years (Van Der Merwe, 2015). Also, the 2014 SME survey, established that over 78% of women-owned small businesses were profitable, when compared to their male counterpart (70%). While EO has been identified as an important factor for business success (Rauch et al., 2009; Radipere, 2013; Fatoki, 2014; Molokwu, Barreria and Urban, 2013); knowledge of gender differences in EO have been less documented on the multiplicity of studies conducted in South Africa (Machirori, 2012; Mohutsiwa, 2012; Fatoki, 2014; Radipere, 2013; Callaghan and Venter, 2011; Molokwu, Barreria and Urban, 2013). Without a current understanding gender differences in EO and performance, the notion that women are second to men will continue to persist following existing theories such as the Liberal feminist theory which upholds that female owned businesses have a poor performance when compared to male owned businesses and that these differences in performance can be explained by systematic factors such as lack of relevant education, discrimination, and lack of experience (Ahl, 2006; Fischer, Reuber and Dyke 1993). However, in today’s world, women have bridged the gap in basic systematic differences such as relevant education where it is even postulated that women globally are more educated than their male counterparts (David, 2016). As such, revisiting gender differences becomes imperative as the changing landscape of equality have brought about new capabilities for female entrepreneurs.

OBJECTIVES

The objective of the study was to:

- Establish whether there is any gender difference across the EO dimensions (risk-taking, innovativeness, proactiveness, competitive aggressive and autonomy)
- Find out if the performance of SMEs differ between male owned/managed vs female owned/managed businesses.
- Examine if the interaction between gender and other demographic variables (e.g., age and education) affect EO and SME performance?
LITERATURE REVIEW

The Role of Gender in Business

Gender differences between male and female owned businesses have received a great amount of attention in entrepreneurship literature (Díaz-García and Jiménez-Moreno, 2010; Inmyxai and Takahashi, 2010; Quaye et al., 2015; Shinnar et al., 2012; Yordanova and Tarrazon, 2010). The Liberal feminist theory and social feminist theory are the major two schools of thought that have been used to explain the role gender plays in business (Robb and Watson, 2011; Quaye et al., 2015; Inmyxai and Takahashi, 2010). The Liberal feminist theory asserts that men and women differ in their behaviour due to situational factors. This theory upholds that female owned businesses have a poor performance when compared to male owned businesses and that these differences in performance can be explained by systematic factors such as lack of relevant education, discrimination, and lack of experience (Ahl, 2006; Fischer, Reuber and Dyke, 1993). On the other hand, social feminist theory proposes males and females are inherently different in their traits, behaviour, and experiences and that these differences do not necessarily mean that female entrepreneurs are less effective than male entrepreneurs. However, Johnsen and McMahon (2005) note that these differences between male and female entrepreneurs will most likely be revealed in their motivation for entrepreneurship and the performance of their business.

With regards to gender difference in the performance of male owned and female owned businesses, the findings have not been consistent. For example, while studies (Inmyxai and Takahashi, 2010; Hsu, Kuo and Chang, 2013) have found that male owned businesses outperform female owned businesses; Rosa Carter and Hamilton (1996) in their studies on British small businesses found no evidence that men owned enterprises are more profit orientated than women owned enterprises. Hence, the reasons for the existence of gender differences in performance between male and female owned enterprises should be taken into consideration when encouraging entrepreneurially oriented behaviour within businesses.

Entrepreneurial Orientation (EO)

The concept of entrepreneurial orientation was first conceptualised by Miller (1983) where he categorised EO using three dimensions (innovativeness, proactiveness and risk taking). Miller elucidated that the three dimensions of EO act together to form a basic uni-dimensional strategic orientation and thus should be combined into a single scale in entrepreneurship research. Subsequent theorisation by Lumpkin and Dess (1996) introduced two more formal dimensions (autonomy and competitive aggressiveness). These researchers believe that the EO dimensions can vary independently of each other and thus can be conceptualised as a multi-dimensional scale. Nonetheless, in spite of the huge opinion differences on the methodological and measurement issues of EO by researchers (; Cassia and Minola, 2012; Covin and Wales, 2011; Tang, Kreiser, Marino, Dickson and Weaver, 2009; Hughes and Morgan, 2007) the EO construct has proved to its reliability and validity (Runyan, Dong and Swinney, 2012; Kreiser, Marino and Weaver, 2002). For the purpose of this study, the five dimensions of EO – namely, innovativeness, proactiveness, risk taking, autonomy and competitive aggressiveness as developed by Lumpkin and Dess (1996) will be used.

Innovativeness

Lumpkin and Dess (1996: 142) define innovativeness as the tendency of a business “to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products,
services, or technological processes”. Kropp, Lindsay and Shoham (2006) identify innovativeness as an important success factor for new businesses. Studies on the gender differences in terms of innovation by De Vita, Mari and Poggesi (2014) reveal that when compared to their male counterparts, female entrepreneurs are less innovative and thus less inclined to expansion and export orientation. Researchers Verheul, Van Stel and Thurik, (2006) pointed out that while women entrepreneurs have a greater tendency to innovate on their products despite getting less growth expectations, male entrepreneurs on the other hand tend to focus on the development of new markets that can enhance the growth of their businesses. Furthermore, several studies (Masona, Floreania, Miania, Beltramea and Cappellettoa, 2015; Soininen, Puumalainen, Sjögrén and Syrjä 2012; Hameeed and Ali, 2011) established a positive relationship between innovativeness and firms’ performance.

Autonomy

Autonomy can be defined as an individual’s independent aptitude to bring forth an idea or a vision and see it through to its completion. Callaghan and Venter (2011) view autonomy as the concept of free and independent action and decision taken by the entrepreneur. Sexton and Bowman-Upton’s (1990) study on female and male entrepreneurs reveal that female entrepreneurs scored significantly higher on the traits related to autonomy than male entrepreneurs. With regards to performance, while studies by Awang Khalid, Kassim, Ismail, Zain and Madar (2009) found a positive relationship between autonomy and performance; other studies by (Casillas and Moreno, 2010; Hughes and Morgan, 2007) fail to find any significant relationship between autonomy and performance.

Proactiveness

Proactiveness is an opportunity-seeking behaviour that characterises an entrepreneurs’ quest for pursuing and exploiting new business opportunities such as introducing new products/services before competitors (Martin and Javalgi, 2013). Jalali, Jaafar and Ramayah (2014) pointed out that proactive firms are innovative and thus are able to achieve a high competitive advantage. Craig et al. (2014) observed that businesses that are proactive are usually far ahead of their competitors in identifying profitable opportunities and taking initiatives that enhance the performances of their businesses. Also, studies (Masona et al., 2015; Lumpkin and Dess, 2001) revealed a positive relationship between proactiveness and firm performance. With regard to gender and proactiveness, Tan (2008) established that women entrepreneurs are more proactive than men as they are more willing to take bolder decision to move into risky and untried ventures when compared to their male counterparts.

Competitive aggressiveness

Competitive aggressiveness refers to how a business “relates to competitors and responds to trends and demand that already exist in the marketplace” (Lumpkin and Dess, 1996: 147). Schillo (2011) views competitive aggressiveness as a business way of engaging with its competitors. Studies on gender differences in competitiveness have mostly focused on experiment, where Shurchkov (2011) observed that women are significantly more likely to compete when task stereotypes and time constraints are absence but will more often stay away from competitions of both sources of pressures are present. Furthermore, the nexus between competitive aggressiveness and firm’s performance seem to produce mixed results, as while studies (Masona et al., 2015; Le Roux and Bengesi, 2014) have found a positive relationship competitive aggressiveness and firm’s performance; other studies Casillas and Moreno (2010) fail to find any relationship.
Risk-taking propensity

Tang and Tang (2007) define risk-taking propensity as an individual’s current inclination to take or avoid risks. Risk taking has been considered as an important part of entrepreneurship because an entrepreneur cannot know with certainty whether or not the desired product/service can be produced, if it will meet the needs and expectations of potential customers, and whether it will be able to generate profit and benefit from the first mover advantage before a new product/service is introduced to the market. Risk-taking enhances the profitability of a business (Miller and Le Bruton-Miller, 2011). Jalali et al. (2014) believe that entrepreneurs partake in risk-taking activities when in anticipation for an expected return. Also, Masona et al. (2015) found a positive relationship between risk taking and performance.

With regards to gender differences in terms of risk-taking, studies (Gold, Hunton and Gomaa, 2009; Sexton and Bowman-Upton, 1990; Kepler and Shane, 2007; Wagner, 2007) established that there is a significant difference between men and women, with women being more risk averse than men. The fear of failure, the low tolerance of uncertainty and the ability to identify opportunities limits their abilities to start their own businesses and thus account for the lower existence of female entrepreneurship (Minniti and Nardone, 2007). Conversely, Furdas and Kohn (2010) did not find any significant gender differences in the risk tolerance behaviour for entrepreneurs in Germany. However, Tan (2008) found that women entrepreneurs participate in more risky venture compared to the male counterparts.

RESEARCH METHODOLOGY

Sample and Data Collection

This study made use of a questionnaire survey approach to collect the data. This study focused on SME owners in the Mangaung metropolitan municipality in the Free State province of South Africa. For the purpose of this study an SME was defined following the National Small Business Act of South Africa of 1996, as amended in 2003 as “a separate and distinct business entity, including cooperative enterprises and non-governmental organisations, managed by one owner or more which, including its branches or subsidiaries, if any, is predominantly carried on in any sector or subsector of the economy mentioned in column I of the Schedule”. Following the act, small businesses were classified as businesses having less than 50 employees with a maximum not exceeding R13 million in annual turnover, while medium enterprises were classified as business with 50-200 employees and a maximum annual turns over not exceeding R51 million. Convenience and snowball sampling was used for data gathering in this study. Convenience sampling permitted the researcher to administer data gathering by hand delivery at the convenience of the respondents. Snowball sampling was applied on the initial respondents as they recommended other entrepreneurs operating in the Mangaung Metropolitan Municipality. This approach was adopted owing to the lack of a database of entrepreneurs in the Free State and South Africa in general. In total, 285 questionnaires were hand out and only 200 were fully completed (70.2% response rate).

Variables and Measures

EO and its dimensional variables

EO has been measured by prior studies using either a one-dimensional or multidimensional construct (Fatoki, 2014, Lumpkin and Dess, 1996; Miller, 1983; Hughes and Morgan, 2007; Covin and Wales, 2011). In this study, EO is measured using both the one-dimensional and the multidimensional scales. The multidimensional scale comprised of eighteen items, where in six items were combined to form autonomy, while three items were each combined to form the sub-scales risk taking, competitive aggressiveness, proactiveness, and innovativeness using a seven-point Likert-type scale. This study
reconstructed the seven-point Likert-type scale into a five-point Likert-type scale as used on prior studies by Alarape (2013), comprised of eighteen items. The one-dimensional EO was obtained by aggregating the five sub-scales.

Firm performance

A firm’s performance has been measured using both subjective and objective measures. Inmyxai and Takahashi (2010) stress that objective measure is usually the most preferred indicator of firm performance as it is not unreliable and also not subject to inconsistent accounting practices by businesses. However, given that most SMEs owners and manager are never willing to disclose their confidential financial information, this study measured performance using subjective measures of financial and non-financial performance (sales, number of employees, growth in market share profits and customer satisfaction) as used in prior studies (Fatoki, 2014, Neneh and Van Zyl, 2012; Inmyxai and Takahashi, 2010).

Assessing Validity and Reliability

Table 1 shows the results of the factor analysis for the EO dimensions as well as the Cronbach alpha values for each dimension. The EO component loaded into five factors. Factor 1 was innovation which loaded with an Eigen-value of 8.224 and accounting for a total variance of 45.686. Factor 2 was Proactiveness (Eigen value = 3.505; Variance = 19.474), factor 3 was risk taking (Eigen value = 1.885; Variance = 10.471), factor 4 was competitive aggressiveness (Eigen value = 1.317; Variance = 6.205) and factor 5 was autonomy (Eigen value = 1.084; Variance = 4.666). The Cronbach’s alpha was used to assess the internal consistency of the scales used in the study. The alpha values of 0.859, 0.904, 0.912, 0.745, and 0.842 were obtained for innovativeness, proactiveness, risk taking propensity, competitive aggressiveness and autonomy respectively. Therefore, the high internal consistency rate (alpha > 0.7) indicates that the reliability of the measures and thus validates the use of these measures for the analyses performed below. The captured data was analysed using Statistical Package of Sciences statistical software (SPSS) and the results were interpreted using descriptive statistics, T-test and regression.
| TABLE 1 |
| FACTOR ANALYSIS AND RELIABILITY OF EO DIMENSIONS |

<table>
<thead>
<tr>
<th>Factor</th>
<th>Innovation</th>
<th>Proactiveness</th>
<th>Risk Taking</th>
<th>Competitive aggressiveness</th>
<th>Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I know my &quot;customers&quot; and understand their requirements</td>
<td>In dealing with competitors, my company initiates actions rather than responding to its major competitors</td>
<td>I prefer being low-paid employee with apparent job security</td>
<td>Are you nice to your competitors or do you feel like you want to beat them up</td>
<td>In pursuing business opportunities I make decisions on my own without constantly asking for help</td>
</tr>
<tr>
<td>2</td>
<td>0.820</td>
<td>0.936</td>
<td>0.700</td>
<td>0.892</td>
<td>0.773</td>
</tr>
<tr>
<td>3</td>
<td>I have an ability to identify fresh and innovative approaches to existing situations</td>
<td>We excel at identifying opportunities to stay ahead of our competitors</td>
<td>I am willing to take a low risk for a sure rate of return</td>
<td>Do you use violent behaviour towards your competitor</td>
<td>People I know tell me I am good at what I do.</td>
</tr>
<tr>
<td>4</td>
<td>0.877</td>
<td>0.818</td>
<td>0.892</td>
<td>0.765</td>
<td>0.701</td>
</tr>
<tr>
<td>5</td>
<td>anticipate change and perceive trends before they become apparent to others</td>
<td>Environmental scanning is a continuous exercise</td>
<td>I do not fear investing my money on a project whose risk I have calculated</td>
<td>Do you use illegal means to gain a competitive advantage over your competitor</td>
<td>Most days I feel a sense of accomplishment from what I do.</td>
</tr>
<tr>
<td></td>
<td>0.844</td>
<td>0.816</td>
<td>0.812</td>
<td>0.812</td>
<td>0.772</td>
</tr>
<tr>
<td></td>
<td>anticipate future consequences or implications of current situations or events</td>
<td>We are the first to introduce new products/services, administrative techniques, operating, technologies</td>
<td></td>
<td>Do you criticise your competitors to make them look bad at their job</td>
<td>I feel like I can pretty much be myself in my daily situations.</td>
</tr>
<tr>
<td></td>
<td>0.815</td>
<td>0.767</td>
<td></td>
<td>0.757</td>
<td>0.723</td>
</tr>
</tbody>
</table>

Eigen Value: 8.224  3.505  1.885  1.317  1.084  
Cumulative Variance: 45.686  65.160  75.631  81.836  86.502  
Cronbach Alpha: 0.859  0.904  0.912  0.745  0.842
RESULTS AND DISCUSSION

Table 2 depicts the descriptive statistics of the respondents. It is seen that the majority of respondents are male (68%) when compared to females (32%). This is in line with studies by Verheul, Thurik, Grilo and van der Zwan (2012) who found out that the probability of women becoming self-employed is less when compared to their males counterparts. Most respondents are between the ages of thirty one and forty years old (48%) and twenty one to thirty years (29%). Furthermore, with regards to educational qualification, the results depict that over seventy percent (70.6%) of the males had less than a matric compared to fifty percent (50%) of their female counterparts. It is seen that about forty three percent (43.8%) of women entrepreneurs have at least matric whereas only about twenty three percent (23.5%) of males do. Regarding prior experience, it is seen that a significant percentage of both men and women lack prior business experience. Next, the gender differences in EO and Performance are examined.

<table>
<thead>
<tr>
<th>Description</th>
<th>Frequency</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>136</td>
<td>68%</td>
</tr>
<tr>
<td>Female</td>
<td>64</td>
<td>32%</td>
</tr>
<tr>
<td><strong>Age of respondent</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 20</td>
<td>8</td>
<td>4%</td>
</tr>
<tr>
<td>21-30</td>
<td>58</td>
<td>29%</td>
</tr>
<tr>
<td>31-40</td>
<td>96</td>
<td>48%</td>
</tr>
<tr>
<td>41-50</td>
<td>26</td>
<td>13%</td>
</tr>
<tr>
<td>≥50</td>
<td>12</td>
<td>6%</td>
</tr>
<tr>
<td><strong>Educational Qualification</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males females males females</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No formal education</td>
<td>8  4  5.9%  6.3%</td>
<td></td>
</tr>
<tr>
<td>&lt; Matric</td>
<td>96  32  70.6%  50%</td>
<td></td>
</tr>
<tr>
<td>≥ Matric</td>
<td>32  28  23.5%  43.8%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>136 64 100% 100%</td>
<td></td>
</tr>
<tr>
<td><strong>Experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No prior Experience</td>
<td>106 46 77.9% 71.9%</td>
<td></td>
</tr>
<tr>
<td>Prior business experience</td>
<td>30 18 22.1% 28.1%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>136 64 100% 100%</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 depicts the results of the independent sample t-test on the gender differences across EO dimensions and SME performance. The results show that there are significant gender differences across some EO dimensions. For risk-taking, the results showed that male entrepreneurs have a significantly higher risk-taking behaviour than female entrepreneurs (T= 2.242; p<0.05). This is in accordance with prior studies (Ayub et al., 2013; Wagner, 2007) which established that women are more risk averse than men. For proactiveness, the results indicate that women entrepreneurs are more
proactive than their male counterparts and the results are statistically significant at the 5% level (T= -2.2100; p<0.05). This confirms prior findings (Ayub et al., 2013; Jelenc, Pisapia and Ivanusic, 2016; Tan, 2008) that showed that women entrepreneurs are more proactive than men as they are more willing to take bolder decision to exploit new opportunities when compared to their male counterparts. This study found no significant gender differences in the level of innovation. This is contrary to evidence from Pakistan, where Ayub et al. (2013) established that female entrepreneurs have a slightly lower innovativeness than their male counterparts.

TABLE 3

GENDER DIFFERENCES ACROSS EO DIMENSIONS

<table>
<thead>
<tr>
<th>Factors</th>
<th>Males</th>
<th>Females</th>
<th>Mean Difference</th>
<th>T-value</th>
<th>P-value</th>
<th>95% Confidence interval of the mean difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk taking</td>
<td>3.686</td>
<td>3.333</td>
<td>0.353</td>
<td>2.242</td>
<td>0.027**</td>
<td>0.041 - 0.666</td>
</tr>
<tr>
<td>Proactiveness</td>
<td>1.956</td>
<td>2.242</td>
<td>-0.286</td>
<td>-2.100</td>
<td>0.037**</td>
<td>-0.555 - -0.018</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>2.781</td>
<td>2.636</td>
<td>-0.145</td>
<td>-1.372</td>
<td>0.172</td>
<td>-0.354 - 0.064</td>
</tr>
<tr>
<td>Competitive</td>
<td>2.059</td>
<td>2.063</td>
<td>-0.004</td>
<td>-0.078</td>
<td>0.938</td>
<td>-0.096 - 0.089</td>
</tr>
<tr>
<td>Aggressiveness</td>
<td>3.574</td>
<td>3.641</td>
<td>-0.067</td>
<td>-0.734</td>
<td>0.464</td>
<td>-0.247 - 0.113</td>
</tr>
<tr>
<td>Autonomy</td>
<td>2.797</td>
<td>2.963</td>
<td>-0.166</td>
<td>-2.078</td>
<td>0.040**</td>
<td>-0.325 - 0.008</td>
</tr>
</tbody>
</table>

Note: ** Significant at the 5% level

Furthermore, the results showed no significant gender differences in competitive aggressiveness and autonomy (T= -1.372; p>0.05; T= -0.078; p>0.05 for competitive aggressiveness and autonomy respectively), which contradicts existing findings (e.g. Ayub et al., 2013). Moreover, also observed is the fact that there is a significant gender difference in the performance of businesses with female owned businesses performing better than businesses owned by male and the results are statistically significant at the 5% level. This is in congruent with studies by Rosa Carter and Hamilton (1996), but nonetheless, contradicts with prior studies by (Inmyxai and Takahashi, 2010; Hsu, Kuo and Chang, 2013) who found that male owned businesses significantly outperform female owned businesses.

Additionally, looking at the mean values, it is observed that irrespective of gender, the levels of innovativeness, competitive aggressiveness, and proactiveness are generally low among the SMEs. This is a call for concern as these factors have been known to significantly enhance the performance of businesses (Craig et al., 2014; Le Roux and Bengesi, 2014).

The results in Table 4 show the interaction between gender and other variables (age, education, and experience) and its effect on EO and firm performance. The dependent variable for model 1 is EO. The results indicate that there is a significant positive relationship between gender and EO, with female entrepreneurs having a higher EO than their male counterparts. This contradicts findings by Quaye et al. (2015) and Ayub et al. (2013) which showed that male entrepreneurs had a significantly higher EO than female entrepreneurs. Also observed is the fact prior experience has a significant positive relationship with EO, with entrepreneurs that had prior business experience having a higher EO than entrepreneurs that did not have prior business experience. Furthermore, the results indicate that the interaction between gender and education positively influences EO. This is in line with studies by Quaye et al. (2015) who also found that interaction between gender and education positively influences EO. This result is further explained in the interaction graph as seen in Figure 1 below. Additionally, the probability of the F-value is significant (F=3.330, P<0.05), indicating that the overall model is significant and thus valuable in predicting EO.
### Table 4

**THE INTERACTION BETWEEN GENDER AND OTHER DEMOGRAPHIC VARIABLES (AGE, EDUCATION) AND ITS EFFECT ON EO AND FIRM PERFORMANCE**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>T-value</td>
</tr>
<tr>
<td>Constant</td>
<td>13.102***</td>
<td>10.760***</td>
</tr>
<tr>
<td>Gender</td>
<td>0.170</td>
<td>2.421**</td>
</tr>
<tr>
<td>Education</td>
<td>-0.029</td>
<td>-0.379</td>
</tr>
<tr>
<td>Age of Entrepreneur</td>
<td>0.059</td>
<td>0.780</td>
</tr>
<tr>
<td>Experience</td>
<td>0.167</td>
<td>2.363**</td>
</tr>
</tbody>
</table>

**Interaction factors**

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender * Education</td>
<td>0.172</td>
<td>2.298**</td>
</tr>
<tr>
<td>Gender * Age</td>
<td>-0.088</td>
<td>-1.106</td>
</tr>
<tr>
<td>Gender * Experience</td>
<td>-0.011</td>
<td>-0.152</td>
</tr>
</tbody>
</table>

**Model Parameters**

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>R²</td>
<td>0.108</td>
<td>0.144</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.076</td>
<td>0.113</td>
</tr>
<tr>
<td>F-Value (sig.)</td>
<td>3.330(0.002)***</td>
<td>4.621 (0.000)***</td>
</tr>
<tr>
<td>R²-Change</td>
<td>0.045</td>
<td>0.064</td>
</tr>
<tr>
<td>F-Change (sig.)</td>
<td>3.233 (0.023)***</td>
<td>4.822(0.003)***</td>
</tr>
</tbody>
</table>

**NB:** The dependent variable for Model 1 is EO while that for model 2 is SME performance. R²-Change and F-Change record the changes that occur after the addition of the interaction factors.

**Note:** ***Significant at the 1% level
** Significant at the 5% level

Model 2 shows the interaction between gender and other variables (age, education, experience) and its effect on performance. The results depict that there is a significant positive relationship between gender and firm performance, with female entrepreneurs having a higher performance than their male counterparts. Studies by Marlow, Hart, Levies and Shamsul (2013) found that in the UK, when firm characteristics (size, sector and business age) and individual attributes (age, income and education) are controlled for, women owned businesses turn to outperform those owned by their male counterparts. Also established is the fact that education has significant positive relationship with performance depicting that entrepreneurs with a higher education have a higher performance than entrepreneurs that have a low level of education. This is in line with prior evidence by Chow (2006) who established in his study in China, that number of employees with college education, had a significant influence on performance of the firm. Moreover, the results indicate that the interaction between gender and experience positively influences firm performance. This result is further explained in the interaction graph as seen in Figure 2 below.

Figure 1 indicates the interaction between gender, education and EO. As observed in Figure 1, female entrepreneurs have a higher EO than their male counterparts. Additionally, education significantly enhances EO amongst female entrepreneurs but not amongst male entrepreneurs. Therefore education should be used as a tool for enhancing EO in women. In Figure 2, it is established that female...
entrepreneurs have a higher performance than their male counterparts. Also, entrepreneurs with prior business experience tend to perform better than those without such experience and this effect is stronger amongst female entrepreneurs than for male entrepreneurs.

FIGURE 1
INTERACTION BETWEEN GENDER, EDUCATION AND EO

Interaction Between Gender, Education and EO

CONCLUSION

While EO has been identified as an important factor for business success and also a source of firm level competitive advantage, the question this study seeks to answer is whether EO differs between male and female entrepreneurs in South Africa’s SME sector. From the analysis, it is clearly evident that there are significant gender differences across some EO dimension (i.e. risk-taking and Proactiveness). While male entrepreneurs were seen to be more risk takers than their female counterparts; female entrepreneurs on the other hand were more proactive. Also, the results indicate that there is a significant positive relationship between gender and EO, with female entrepreneurs having a higher EO than their male counterparts. Based on this analysis, it is clearly evident that gender is a significant factor to consider when adopting EO as a means of enhancing SME competitiveness and fostering its success. The results also depict that most of the respondent had less than a matric, indicating that the levels of education amongst the entrepreneurs are still low.

Moreover, there is a significant gender difference in firm performance, with female entrepreneurs having a higher performance than their male counterparts. This findings contradicts traditional perspective on male owned businesses outperform female owned businesses. A Study by Marlow et al. (2013) found that in the UK, when firm characteristics (size, sector and business age) and individual attributes (age, income and education) are controlled for, women owned businesses turn to outperformed those owned by their male counterparts. In this study the age, education and experience of the entrepreneurs were used as control variables. A possible explanation for this finding could be attributed to the global drive in empowering women entrepreneurs all around the world and most specifically in South Africa. This is quite evident in the FNB Business report which reported an 11% increase in the entrepreneurial activities amongst women entrepreneurs in in the FNB Business customer base in South Africa (FNB, 2011). Also, the 2014 SME survey revealed that 78% of women-owned small businesses were profitable, when compared to 70% for men owned small businesses. Hence, even though only 38% of South Africa’s established businesses are women-owned, the traditional perspective on women entrepreneurs being inferior to their male counterparts needs to changed, given the worldwide drive in empowering women as successful entrepreneurs. In addition, the fact that the interaction between gender and experience positively influences firm performance, indicates the great role prior business experience plays as it can enable entrepreneurs to...
identify and create networks, build solid reputations with their suppliers, financier and customers as well as increase their skills and knowledge that is relevant for their business, which in turn will enhance the performance of their businesses.

MANAGERIAL IMPLICATIONS

The fact that levels of innovativeness, competitive aggressiveness, and proactiveness are low for both male and female entrepreneurs suggest the need for developing these competencies among South African SME owners as these EO dimensions can significantly improve the performance of their businesses. Additionally, SME owners and managers can enhance the general EO posture of their businesses by enabling their employees to act entrepreneurially through entrepreneurial skills development. Furthermore, risk taking and proactiveness are widely known for influencing the performance and growth of businesses, however, this study shows significant gender differences in these two factors with men being more risk takers while females are more proactive. As such, creating gender balanced partnerships can enable business owners and managers to have optimal levels of both factors to better enhance the performance and growth of their businesses.

Given that education was established to have a positive relationship with performance, and also the interaction between gender and education positively influences EO, the important role education plays is quite obvious. This places more emphasis on enhancing the level of education amongst small business owners and particularly more emphasis should be placed on education and training related to entrepreneurship. Consequently, in order to enhance the entrepreneur’s level of education and business knowledge and skills, specialised capacity building support programs should be put in place. Moreover, the fact that experience has a significant positive relationship with EO shows that entrepreneurs that had prior business experience before starting their businesses are more alert, more prepared and better able to identify and explore opportunities that are not visible to other entrepreneurs. It can therefore be more advisable for business owners and managers to form partnerships with entrepreneurs that have sufficient prior experience the industry in which their business operates in.

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