Significance of Entrepreneurship Education of Small and Micro Businesses in Communication and Information Technology Sector in Pretoria region in South Africa

Thomas Strydom Adaeze\textsuperscript{1*} and Mr. Barry Mashinini\textsuperscript{2}

\textsuperscript{1}PhD student, Faculty of Business Administration, University of Pretoria, South Africa.
\textsuperscript{2}Lecturer, Faculty of Business Administration, University of Pretoria, South Africa.

\textsuperscript{*}Corresponding Author’s Email: adaezethomas@gmail.com

Abstract

Purpose: The purpose of this study was to investigate the influence of entrepreneurship training on performance of small and micro enterprises in Information Communication Technology sector in Pretoria town.

Methodology: Mixed method research design was used to collect qualitative and quantitative data. Quantitative data was analyzed using descriptive and inferential statistics. Qualitative data collected from the open-ended questions was analyzed through content analysis.

Results: The study revealed that lecture method was mostly used during trainings and trainees preferred discussions or participatory methods. Business characteristics statistically significantly moderate the relationship between entrepreneurship training and firm performance. That is, as age of the business, size of the business and education level of the owner of the business increases, the more positive impact the entrepreneurship training has on firm performance.

Conclusion: The government needs to regulate and broaden the curriculum of entrepreneurship training.

Recommendation: The study recommends that trainers should conduct training needs assessments before conducting entrepreneurship trainings. Trainers should give equitable emphasis on entrepreneurial skills, managerial skills, and technical skills training. Still, trainers need to review their training methods in line with the training needs and the trainees’ expectations.

Keywords: Information Technology, Small and Micro Enterprises, Training.
1.0 Introduction

Success or failure of any organization largely depends on the human resource capability of the firm to combine resources in a manner that takes advantage of the opportunities and minimize threats towards achieving organizational objectives. Global Entrepreneurship Monitor (GEM) identified strategic human resource development as one of the strategies to enhance organizational capability for successful performance (GEM, 2010). According to Government of South Africa, for Small and Micro Enterprises (SMEs), human resource development through entrepreneurship training is one of the key ingredients for enhancing performance. Entrepreneurship training has been cited to promote innovativeness, risk taking, opportunity identification, business management, and technical skills development (Lewrick, 2011).

The realization of the critical role played by entrepreneurship training on the success of SMEs, has necessitated the Government of South Africa and Non-Governmental Organizations (NGO) to conduct numerous entrepreneurship trainings. Despite this, there lacks sufficient empirical evidence to show how these trainings have helped SMEs improve their performance. This study focused on establishing the influence of entrepreneurship training on SMEs in Information Communication Technology (ICT) sector by establishing the extent to which training needs assessments, content of training and methods of training influence performance of SMEs in ICT sector.

In South Africa Small and Micro Enterprises (SMEs) are defined as firms with 1 to 49 employees. Where, micro enterprise are firms employing 1 to 9 employees; and small enterprises employing 10 -49 employees. According to the United Nations Industrial Development Organizations (UNIDO), worldwide, the SMEs sector forms the backbone of private sector contributing up to 90 percent of enterprises (UNIDO, 2000). The Organization for Economic Development (OECD, 1996) points out that SMEs provide the largest proportion of jobs, over two thirds in European Union (EU) to 50 percent in the United States.

In South Africa, Small and Micro Enterprises (SMEs) cuts across all sectors of the country’s economy and provide one of the most prolific sources of employment, not to mention the breeding ground for medium and large industries which are critical for industrialization (GOK, 2005). SME sector comprises of 75% of all businesses (Kiveu & Ofafa, 2013) and contributes 82.7 percent of the total employment (GOK, 2015). Further, the SMEs sector contributed 18 percent of gross domestic product (GDP) (Kiveu et al., 2013). Despite the important role played by SMEs, irrespective of the country in which the SMEs exist, they face common obstacles that weaken both their performance and survival rate (Arasti, Zandi, & Bahmani, 2014). The common challenges include, limited market access, limited access to information, limited technical knowledge and skills, limited access to resources, unfavorable policy and regulatory environment (Kiveu et al., 2013).

SMEs in South Africa do significantly contribute to the country’s economic growth through employment creation, poverty reduction, and they act as intermediaries in trade. However, nearly three out of five SMEs in South Africa fail within the first few months of operation (Kamunge, Njeru & Tirimba, 2014). This high failure rate is mainly attributed to lack of skilled work force and stiff competition in the market (Oteri, Kibet & Ndungu, 2015). To address these challenges, the South African Government and Non-Governmental Organizations (NGOs) have established entrepreneurship trainings to provide SME with technical and business skills. These
entrepreneurship trainings are intended to enable the SMEs acquire unique human resource capabilities for competitive advantage (Mungai, 2012; Sambo, Gichira, & Yusuf, 2015).

Several studies have been carried out in South Africa to establish the relationship between entrepreneurship training and performance (Kingori & Theuri, 2016; Njoroge & Gathungu, 2013; Mwangi, 2011; Osoro, 2013). However, these studies are general and do not distinguishing the nature of the relationship (Mwangi, 2011; Osoro, 2013). Moreover, performance in most studies have been measured based on financial perspective. More specifically, there also lacks sufficient evidence on the role played by training needs assessment, content of training and method of training as factors of entrepreneurship training on performance of small and micro enterprises in information communication technology sector in Pretoria town, South Africa.

This descriptive research study investigated perceptions of SMEs ICT owners/managers and training managers of ICT Authority on how training needs assessment, content, and methods of training influence SMEs ICT performance in Pretoria town. SMEs ICT performance was measured as a composite of financial (sales turnover and profit margins) and non-financial (new product development and customer satisfaction) measures. The study brought out theoretical, practical and policy implications. Specifically the findings provide trainers in the SMEs sector with information on what to include in the training content to broaden their syllabi. The general objective of the study was to investigate the influence of entrepreneurship training on performance of small and micro enterprises in information communication technology sector Pretoria town, South Africa.

2.0 Literature Review

2.1 Theoretical Review

2.1.1 Training Needs Assessment Theory

Kaufman and English (1979) developed training Needs assessment theory. The theory argues that an actual need can only be identified independent of premature selection of a solution. To conduct a quality needs assessment, first, the current results are determined, and then the desired results articulated. Hence, the distance between the results (current and desired) forms the actual need. Once a need is identified, then a solution can be selected that is targeted to closing the gap. The theory postulates that a need in the simplest sense is a measurable gap between two conditions, what currently is and what should be. The assessment process points to problem areas, issues, or difficulties that should be resolved.

2.1.2 Economic Development Theory

Schumpeter (1943) developed the economic development theory. The theory looked at entrepreneurship as an innovation and not an imitation. Innovation in this theory is viewed as a novelty-creating economic activity which generates new sources of value-adding productive endeavor, and which disturbs the circular flow of income. In this context, performance must be understood as an inherently disruptive rather than as a smooth process, what is termed as creative destruction. The disruption relates to the circular flow and established market structures, while the creative process is likely to be cumulative and incremental. Therefore, value created by the collective operation is greater than the sum of the parts, and the individuals concerned could not get a higher return on their own particular knowledge or contribution were they to set up independently.
2.1.3 Entrepreneurial Self-efficacy and Intentions Theory

Bandura (1982) developed the entrepreneurial self-efficacy theory. The theory proposes that success in business is driven by individual’s ability to successfully launch an entrepreneurial venture (McGee & Peterson, 2009). Entrepreneurial self-efficacy is useful for increasing entrepreneurs convictions that one can execute the necessary entrepreneurial behavior to provide the desired results; a new venture or improve the existing business. Boyd and Vozkis (1994) provided evidence of the increasing emphasis on the role of self-efficacy in the study of entrepreneurship, including areas such as entrepreneurial career preferences, intentions and performance.

2.1.4 Social Cognitive Theory

The social cognitive theory of Bandura (1982) establishes that the environment causes behavior, but behavior also causes the environment. The theory calls this concept reciprocal determinism, where the world and the behavior of persons are mutually caused. The theory proposes that human conduct must be explained in terms of the reciprocal interaction between cognitive behavior and environmental determinants. The social cognitive theory of Bandura (SCT) centers on the concepts of reinforcement and observation, giving more importance to the mental internal processes as well as to the interaction of the subject with others. The SCT postulates that observation and imitation can be a given across models that can be parents, educators and friends and can even be heroes taken from television. The only requirement for learning can be that one person observes another individual, or models behavior to carry out a certain conduct. The observation and imitation intervene upon the cognitive factors and help the subject decide whether the observed behavior is to be limited. The cognitive factors are the capacity of reflection and symbolization as well as the prevention of consequences based on processes of comparison, generalization, and auto-evaluation. One of the aims of the SCT is the development of the self-evaluation and the self-reinforcement constructs.

2.2 Empirical Review

According to Firdousi (2013) training needs assessment forms the most basic common forms of assessment used by human resource development professionals in the workplace. In this respect, needs assessments help to determine when training is needed and for whom. This means that assessment ensures that training programs have relevance to the people being trained. Training needs assessment therefore provides the information that is usually necessary for designing training programs. Firdousi (2013) posits that the basic purpose of a training needs assessment is twofold; one is to identify the knowledge and skills that people must possess in order to perform effectively on the job, and secondly to prescribe appropriate interventions that can close these gaps. This is in line with what Watkins and Kaufman (2002) explained that needs assessment requires ascertaining what the circumstances are at a point in time, what is to be desired in the future, and a comparison of the two. Hence, needs assessment includes making judgments with regard to needs and putting them into prioritized order to guide decisions about what to do next.

According to The Foundation of Economic and Business Development (2006), for entrepreneurship training to be effective, it must not only be through factual knowledge and limited to skills acquired in the classroom, but also through other more practical interventions. Dewhurst and Livesey (2007) asserts that entrepreneurship training programmes mostly focus on two areas;
training for business start-ups, which centers mainly on the domain of knowledge, experience and aptitudes of entrepreneurs and training those who will start-up businesses by creating entrepreneurs. GEM (2010) states that some common cited objectives of entrepreneurship training include; to acquire knowledge relevant to entrepreneurship; to acquire skills and synthesis of action plans; to identify and stimulate entrepreneurial drive, to develop empathy and support for all unique aspects of entrepreneurship; to devise attitudes towards change and to encourage new start-ups and other entrepreneurial ventures.

In South Africa, a study by Matofari, Kingi and Obwogi (2015) on the effect of training practices on the performance of small and medium sized enterprises in hospitality industry in Mombasa County, South Africa found out that 75% of the of the small and medium sized enterprises preferred on the job training methods for SMEs in the hotel industry. The major training methods which had a positive influence on performance included demonstrations, discussion and presentations used on the job training. The study used a case surveys which are specific to the firms studied. The study also used a small sample size of 24 hotels and did not show how big the population was. The study focused on, on the job training, highlighting the components of the on job training and did not explore the other methods of entrepreneurship training.

Similarly, a study by Nyachome (2012) examined the factors influencing effectiveness of entrepreneurship training programmes in South Africa. The study concluded that the choice of the training method is very significant to the effectiveness of entrepreneurship training. The study established that learner centered instructional designs such as discussion methods were preferred by the trainees. Particularly, incorporation of learner’s business experiences and knowledge was important during learning. However, the trainers mostly used lecture method during training. This calls for further research on the area of methods of training.

Business characteristics have been identified as major determinants of SME performance. Demographics are useful predictors of business outcome. Particularly, the importance of business age and business size and their influence on firm performance have been highlighted in both theoretical discussion and empirical research (Radipere & Dhliwayo, 2014). Small businesses tend to perform very well but up to a certain size where they become sluggish (Takahashi, 2009). These businesses if they are entrepreneurial tend to perform well and if not, they are more likely to fail than older businesses who are more experienced and better resource endowed (Urban, 2004).

A study by Alasadi and Abedelrahim (2007) observed that firm size as measured by the number of employees and sales growth have a significant influence on accounting, technology and purchasing performance of SMEs. Further, a study by Takahashi (2009) concluded that small firms compared to large firms fail to achieve their full potential due to lack of benefits of economies of scale. The study argues that bigger businesses can produce a larger quantity of outputs with low costs because they have the capacity to access critical resources like business finance and hence achieve competitive advantage and better performance. According to Kristiansen, Furuhol and Wahid (2003) the characteristics of the enterprise such as the length of the time the business has been in operation and size of the enterprise are of paramount importance to the survival and success of small business.
3.0 Methodology

Mixed method research design was used to collect qualitative and quantitative data. The target population for this study was 273 small and micro enterprises in the Information Communication Systematic random sampling technique was used to select 73 respondents. Two sets of semi-structured questionnaires were used to collect primary data. Document analysis was done to collect secondary data. The instrument’s reliability was measured by Cronbach’s Alpha. Prior to analysis, diagnostic tests were carried out. Normal probability plots and Shapiro –Wilk test were used for normality test. Variance inflation factor was used to test Multicollinearity. Quantitative data was analyzed using descriptive and inferential statistics. Qualitative data collected from the open-ended questions was analyzed through content analysis.

4.0 Data Analysis, Findings and Discussion

4.1 Demographic Characteristics

A representative sample of 73 firms was drawn from the population to participate in the study. The majority of the respondents were aged between 30 and 35 years (49.2%). This was followed by those aged between 35 and 39 years (21.6%); 40 and 44 years (17.6%); 45 and 49 years (7.8%); and above 50 years (3.9%). The results demonstrated that, half of the respondents were below 35 years. This communicated that young people run most of the SMEs in ICT sector in Pretoria town. 64.7% of the respondents had bachelor’s degree as their highest academic qualification; 23.5% had postgraduate qualification while 11.8% had college diplomas. 19.1% have secondary education, 39.7% have primary education and 31.4% without any formal education. Since having been trained on entrepreneurship, 82.4% reported that they had been in business for less than 7 years; 9.8% for more than 15 years; 3.9% for 7 to 10 years; and 2.0% for 11 to 15 years. The results showed that majority (half) of the firms had less than five employees with majority (four fifth) of the firms being less than 7 years old.

4.2 Descriptive Analysis

4.2.1 Training Needs Assessment

The training needs assessment was evaluated by use of the questionnaire and document analysis. The questionnaire was inform of a five Likert scale, where 5 =very large extent, 4=large extent; 3=some extent; 2=little extent; and 1=very little extent.

Table 1: Descriptive statistics for training needs assessment

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Coefficient of Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual focus (Trainee’s interpersonal skills)</td>
<td>3.65</td>
<td>0.70</td>
<td>0.19</td>
</tr>
<tr>
<td>Task focus (Trainee’s Technical skills)</td>
<td>4.20</td>
<td>0.85</td>
<td>0.20</td>
</tr>
<tr>
<td>Organizational focus (Trainee’s management skills)</td>
<td>3.92</td>
<td>0.77</td>
<td>0.19</td>
</tr>
<tr>
<td>Aggregate score for training needs assessment</td>
<td>3.92</td>
<td>0.77</td>
<td>0.19</td>
</tr>
</tbody>
</table>

*Source: Survey Data (2016)*
Table 1 shows that the respondents indicated that the training organizations focused mostly on trainee’s technical skills (M=4.20; SD=0.85) followed by trainee’s management skills (M=3.92; SD=0.77) and trainee’s interpersonal skills (M=3.65; SD=0.70). ICT is technical area and one needs to understand the basics before engaging in management issues. This is in line Firdousi (2013) assertion that the basic purpose of training needs assessment is to identify knowledge and skill that people must possess to perform effectively on the specific tasks.

4.2.2 Method of Training

The study sought to establish the influence of training method on SMEs ICT sector performance in South Africa. The respondents were asked to indicate methods used for entrepreneurial trainings by ICT Authority that they attended. The respondents were requested to rate the extent to which the identified training methods were used. A five point Likert scale of 1 to 5 was used, where 5=very large extent; 4=large extent; 3=some extent; 2=little extent; and 1=very little extent, the respondents were then asked to indicate the extent to which these methods were used. Table 2 presents the findings.

Table 2: Descriptive statistics for method of training

<table>
<thead>
<tr>
<th>Method</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Coefficient of Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>In house training</td>
<td>3.9</td>
<td>0.92</td>
<td>0.23</td>
</tr>
<tr>
<td>On the job training</td>
<td>3.6</td>
<td>0.49</td>
<td>0.14</td>
</tr>
<tr>
<td>Field trips</td>
<td>3.0</td>
<td>0.88</td>
<td>0.29</td>
</tr>
<tr>
<td>Lecture method</td>
<td>4.5</td>
<td>0.31</td>
<td>0.07</td>
</tr>
<tr>
<td>Group discussions</td>
<td>4.1</td>
<td>0.44</td>
<td>0.11</td>
</tr>
<tr>
<td><strong>Aggregate Score for method of training</strong></td>
<td><strong>3.82</strong></td>
<td><strong>0.61</strong></td>
<td><strong>0.16</strong></td>
</tr>
</tbody>
</table>

*Source: Survey Data (2016)*

The findings in table 2 reveals that a mix of training methods were adopted in conducting entrepreneurial trainings. The aggregate score of 3.82 indicate that the respondents agreed that multiple methods are used to a great extent. Coefficient of variation of 17% indicates that the responses are clustered closely around the mean. However, when asked to choose from optional choices the most preferred training method, as shown in figure 1, 40% of the respondents indicated that they preferred group discussions while 29% preferred on job training; 12% field trips; 10% lectures; and 9% in house training. The finding showed that even though lecture method is the most common training method (as indicated by 61%) followed by group discussions (43%) and in house training (24%); most respondents preferred group discussions (40%) followed by on job training (29%), field trips. This points that the trainers could be using inappropriate methods for training. An indication that trainees need to be involved in the process of planning for the training and also being involved in the training through participation. This is in line with a study by Arasti, Falavarjani and Imanipour (2012) which asserted that the appropriate teaching methods for entrepreneurship include use of group project, case study, individual project, development of a new venture creation project, and problem-solving. This shows a practical oriented approach in
the training. This is also in line with the ILO’s approach to entrepreneurship training, which put emphasis on participatory and learner-centered teaching methods that involve role-plays on risk taking, negotiation, teamwork, and business games intended to make the learning fun, inspiring and interactive (ILO, 2014). This supports the study finding that most of the trainees preferred interactive (discussion) method. The respondents were then requested to identify their most preferred method of training. The findings are shown in figure 1.

![Figure 1: Training method preferred](image)

**Figure 1: Training method preferred**

The study results in Figure 1 showed that the most used (61%) training method was lecture method but the most preferred method was group discussions. This is in line with a study by Matofari, et al. (2015) which recommended inclusion of demonstrations, discussion and presentations as methods of entrepreneurship training. However, the current findings showed that there is disconnect between the method used and preference of the trainees. This disconnect can be associated with the findings of the document analysis which indicated that lecture method is commonly used by trainers because it is cheap in terms of time and cost. Participatory approach (discussion method), field trips, on the job training require more time allocation and more finances which in most cases is constrained.

### 4.2.3 Firm Performance (Dependent Variable)

Firm performance was measured as a composite of non-financial and financial measures. Firm performance was evaluated using a five point scale where 5=very large extent; 4=large extent; 3=some extent; 2=little extent; and 1=very little extent. The findings are shown in Table 3.
Table 3: Business performance

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>My business has a consistent increase in sales</td>
<td>3.69</td>
<td>0.33</td>
<td>0.09</td>
</tr>
<tr>
<td>We allow employees to try new ways of doing things</td>
<td>4.20</td>
<td>0.80</td>
<td>0.19</td>
</tr>
<tr>
<td>We often introduce new services to the market</td>
<td>4.06</td>
<td>0.57</td>
<td>0.14</td>
</tr>
<tr>
<td>Customers prefer my products to my competitor’s</td>
<td>3.69</td>
<td>0.55</td>
<td>0.14</td>
</tr>
<tr>
<td>Customers are happy with our products/services</td>
<td>4.18</td>
<td>0.21</td>
<td>0.05</td>
</tr>
<tr>
<td>We have had reduced customer complaints</td>
<td>3.78</td>
<td>0.14</td>
<td>0.04</td>
</tr>
<tr>
<td>We have had consistent increase in our yearly profits</td>
<td>3.69</td>
<td>0.21</td>
<td>0.06</td>
</tr>
<tr>
<td>My firm relate well with the community around us</td>
<td>3.92</td>
<td>0.21</td>
<td>0.05</td>
</tr>
</tbody>
</table>

**Aggregate Score**

| **3.92** | **0.38** | **0.10** |

*Source: Survey Data (2016)*

As shown in table 3, the mean scores for performance was 3.92. This means that the respondents agreed to a large extent that their businesses performed well. The mean score for consistent increase in sales is 3.69 (large extent); employee empowerment, 4.20 (large extent); often introduction of new products, 4.06 (large extent); competitive products, 3.69 (large extent); customer satisfaction, 4.18 (large extent); reduced customer complaints, 3.78 (large extent); consistent increase in yearly profits, 3.69 (large extent); and good relationship with the community, 3.92 (large extent). The findings revealed that trainings positively influenced the firms’ innovative capability and improve quality of the products/services. This in turn minimizes customer complaints and increase sales/profits. The study revealed that entrepreneurship training positively influence firm creativity and innovation which leads positive economic gain. This is in line with economic development theory, which views the entrepreneur as an innovator and the results of entrepreneurship training to include creativity, innovation and development of new products and services. This is also in line with Mungai (2012) that business management training has a positive effect on entrepreneurs as it influences new product and service development.

4.3 Inferential Statistical Analysis

4.3.1 Regression Analysis

Regression analysis was used to test for hypothesis. Before the running the regression diagnostic test were conducted to establish the suitability of the data for running the regression.

4.3.1.1 Diagnostic Tests

Tests for normality, Multicollinearity, homogeneity of variance and correlation analysis were first conducted to establish the suitability of the data in conducting regression analysis. The scales for analysis were converted into unit matrices for the diagnostic tests.
4.3.1.2 Test of Normality

Test for normality was conducted to check whether the sample came from a normally distributed population. Two tests were used complementarily to test for normal distribution.

The Shapiro-Wilk test, skewness coefficient and coefficient of variation.

Table 4: Tests for normality

<table>
<thead>
<tr>
<th></th>
<th>Shapiro-Wilk</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Training needs assessment</td>
<td>.933</td>
<td>48</td>
</tr>
<tr>
<td>Content of Training</td>
<td>.855</td>
<td>48</td>
</tr>
<tr>
<td>Method of Training</td>
<td>.904</td>
<td>48</td>
</tr>
<tr>
<td>Performance</td>
<td>.896</td>
<td>48</td>
</tr>
</tbody>
</table>

Source: Survey Data (2016)

Table 4 shows that Shapiro-Wilk test results show that all values are <0.05. Considering the sensitivity and limitations of the Shapiro-Wilk test, it was recommended that there should be other tests carried out in addition for verification. To verify the results of Shapiro-Wilk test, the skewness statistic was used. Generally, a skewness greater than 1 or less than -1 indicates that the data is not normally distributed. Table 4 presents the normality test results. The table reveals that all values for the skewness statistic <1 showing normal distribution. Hence, the study not only relied on Shapiro-Wilk test but also skewness statistic to verify normality of data.

4.3.1.3 Test of Autocorrelation

Autocorrelation was measured by use of Durbin-Watson test and the findings are shown in table 5.

Table 5: Test for autocorrelation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Durbin-Watson (DW)</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training needs assessment</td>
<td>1.984</td>
<td>No autocorrelation</td>
</tr>
<tr>
<td>Content of training</td>
<td>2.185</td>
<td>No autocorrelation</td>
</tr>
<tr>
<td>Method of training</td>
<td>1.633</td>
<td>No autocorrelation</td>
</tr>
</tbody>
</table>

Source: Survey Data (2016)

Table 5 shows that Durbin-Watson (DW) for the independent variables was between the two critical values of 1.5 < d < 2.5. That is, DW=1.984 for training needs assessment, 2.18 for content of training and 1.633 for method of training. Hence, the assumption that there was no autocorrelation in the model was established.
4.4 Hypotheses Testing

Multiple linear regression was used to test for the four hypothesis at 95% level of confidence. Aggregate scores from each independent variable was used to run the multiple regression. Effect of training needs assessment, content of training and method of training was first jointly regressed on firm performance. Table 6 shows the findings of the analysis of variance used to establish the level of significance of the relationship.

**Table 6: Analysis of variance**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>7.980</td>
<td>2.660</td>
<td>3.944</td>
<td>.014b</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>29.671</td>
<td>.674</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>37.651</strong></td>
<td>47</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Performance

b. Predictors: (Constant), Content of training, Method of Training, Training Needs Assessment

The F-ratio in table 6 shows that the independent variable (Entrepreneurial Training) statistically significantly predict the dependent variable (firm performance), $F (3, 44) = 3.944, p < .05$. Hence, entrepreneurial training has a positive significant influence on firm performance.

**Table 7: ANOVA for moderating effect**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>8.497</td>
<td>4.249</td>
<td>6.558</td>
<td>.003b</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>29.154</td>
<td>.648</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>37.651</strong></td>
<td>47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Regression</td>
<td>15.020</td>
<td>5.007</td>
<td>9.734</td>
<td>.000c</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>22.631</td>
<td>.514</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>37.651</strong></td>
<td>47</td>
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a. Dependent Variable: Performance

b. Predictors: (Constant), Bus characteristics, Entrepreneurship Training

c. Predictors: (Constant), Bus characteristics, Entrepreneurship Training, Business characteristics x Entrepreneurship Training

Table 7 shows that the model without the interaction term is statistically significant, $F (2, 45) = 6.558, p < .05$. The second model with the interaction term is also statistically significant $F (3, 44) = 9.734, p < .05$. This shows that business characteristics is likely to have moderation effect on the relationship between entrepreneurship training and business performance.
5.0 Conclusions and Recommendations

5.1 Conclusion

From the study, it has been found that training needs assessments positively influence business performance of Small and Micro Enterprises in ICT sector, Pretoria town South Africa. This implies that the more trainers conduct training needs assessment, the more they will tend to understand better the needs of the trainees, hence the needs will be addressed during the training. Therefore, trainers should strive to conduct training needs assessments before conducting entrepreneurship trainings. This will enable them know the specific needs of the trainees so as to adequately address the identified needs. Secondly, the content of training positively significantly influence business performance of Small and Micro Enterprises in ICT sector in Pretoria town South Africa. That is, a multidisciplinary curriculum that covers technical, management and entrepreneurial skills have more positive impact on firm performance. Therefore, trainers should give equitable emphasis on entrepreneurial topics, managerial topics, and technical topics when designing entrepreneurial training program. Specifically, the study showed that the following areas should be considered in the entrepreneurship training; project management, life skills, business regulations and policies, company policy formulation and implementation, international trade relations, partnership and collaborations.

5.2 Recommendations

The study highlighted that training needs assessment positively influence performance of SMEs in ICT sector in Pretoria town South Africa. Thus trainings should be organized according to trainees’ needs, which vary based on demographics and specific business activities. Further, trainers need to take into account these variations and cluster trainees where need be to ensure effectiveness of the trainings. The Ministry of trade should guide through policy on the importance of conducting training needs assessment to address a specific needs of the trainings. The study has shown inadequacies in the content of entrepreneurship trainings offered to SMEs in ICT sector in Pretoria town, South Africa. Hence, the trainers and Ministry of trade/education need to regulate and broaden the curriculum of training entrepreneurship to make entrepreneurship trainings have more positive influence on business performance and economic development. The commonly used method (lecture) to train entrepreneurship has insignificant relationship with business performance. Trainees prefer discussions and participatory methods; therefore, trainers and the Ministry of trade/education should provide guidelines on methods of entrepreneurship training to include discussions and other participatory methods.

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Conflict of Interest

Authors declares no conflict of interest.

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