Business Incubation of Small and Medium Enterprises Performance in Oyo State, Nigeria

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Abstract. This study investigated the effect of business incubation on performance of SMEs in Oyo State, Nigeria. This study adopted survey research design, 386 SMEs were selected and structured questionnaire was used to collect data. Pilot study was carried out to ensure its validity and the reliability, the result range 0.701 to 0.855. Data was analyzed using multiple regression analysis. Findings revealed that business networks (β = -0.214, t = -3.161, p<0.05) had a negative and significant effect on market share. Findings revealed further that financial support (β = 0.480, t = 8.930, p<0.05) and technology support (β = 0.294, t = 5.692, p<0.05) had positive and significant effect on profitability. Also, the results revealed that financial support (β = 0.646, t = 12.256, p<0.05) and technology support (β = 0.435, t = 8.598, p<0.05) had positive and significant effect on firm size. Findings also revealed that that financial support (β = 1.423, t = 10.238, p<0.05), market expertise (β = 0.311, t = 2.484, p<0.05) and technology support (β = 1.112, t = 8.331, p<0.05) had positive and significant effect on performance of SMEs in Oyo State. Implications of findings were discussed.

Keywords: Business incubation, Business networks, Financial support, Government policy, Market expertise, Performance, Technology support

1. Background

Across the globe Small and Medium Enterprises (SMEs) have been recognized to be the economic drivers. Majority of economies in the world are constituted primarily of SMEs. Despite the globally acknowledged importance of SMEs, this sector across the globe has been persistently plagued with poor performance. In 2016, Bibby Financial Services published its inaugural Global Business Monitor report, providing unique insight into the opportunities and challenges facing small and medium sized enterprises (SMEs) across Asia, Europe and North America amid geopolitical change and rising economic uncertainty. The report indicated that several issues such as rising input costs, the burden of government regulation and ongoing cash-flow management have been constantly affecting the performance of SMEs in several regions across the world.

According to the Nigerian Bureau of Statistics/Small and Medium Enterprise Development Agency of Nigeria (NBS/SMEDAN) (2012), National MSMEs collaborative study revealed that there are 17,284,671 MSMEs in Nigeria. The breakdown shows that micro businesses constitute about 17,261,753 or 99.87%, the small enterprises accounted for about 21,264 or 0.12% while the medium scale enterprises is about 1,654 or 0.01% (NBS, 2012). Yazeed, (2017) revealed that micro enterprises contribute 60–75% of the Nigerian employment, small enterprises contribute 20% and Medium enterprises contribute 5–10% according to the report of national enterprise development programme (NEDEP). Given the fact that micro enterprises constitute 99.87% of the total SMEs operating in the country; this explains that SMEs in Nigeria are characterized by low performance and therefore are unable to grow from one scale of business to another (SMEDAN, 2012). Also, in an international conference on SMEs, Oyelaran (2010), posited that SMEs contribute approximately 1% of the country's GDP compared to 40% in Asia and 50% in the USA. This implies that there are some forces behind their low performance in Nigeria.

Small and medium enterprises (SME), acknowledged as tools of economic development, are faced with several challenges as small businesses have failed at alarming rates (Amosa, Omolabi & Suleiman, 2017).
Governments around the world design institutions to support them. Equipping small business owners and managers with skills necessary for survival in a competitive environment is one of the most challenging responsibilities facing business incubators (Nugugi, Otieno & Wachira, 2017).

Several studies carried out by Alkasim, Bohari and Hilman (2017), Ayatse, Iyortsuun and Kwhahar (2017), Cai, Farhan, Jawad, Mustapha and Nasir (2015), Kakabadse, McGowan and Theodorakopoulo (2014), Mulloot and Rao (2016), Nugugi, Otieno and Wachira (2017) have focused on conceptualizing growth strategy on Small and medium enterprise performance. However, these studies have not focused on how funding affects sales growth as even scholars such as (Achtenhagen, Ekberg & Melander, 2017; Amaugo, Anigbo, Egere, Igwe & Ogundana, 2018) have identified the need to fill this gap.

Year in year out, the governments at federal, state and even local levels through budgetary allocations, policies and pronouncements have signified interest and acknowledgement of the crucial role of the SME sub-sector of the economy and hence made policies for energizing the same (Mulloot & Rao, 2016). There have also been fiscal incentives, grants, bilateral and multilateral agencies support and aids as well as specialized institutions all geared towards making the SME sub-sector vibrant (Awolaja, Bako & Murtala, 2017). It has been shown that there is a high correlation between the degree of access business incubation dimensions and sales growth of SMEs. Awolaja, Bako and Murtala (2017) which used a sample of over 5,000 SMEs found that access to finance as a dimension of business incubation was ranked as either the biggest or second biggest obstacle by SMEs. However, majority of SMEs in Nigeria are unable to fund their marketing operations and as a result, this affects their sales growth (Abdullahi & Sulaiman, 2015).

Despite the large number of studies on business strategies, a number of these studies have so far yielded divergent results, thus leading to a scholarly discourse as to whether business incubation affect small and medium enterprise market share. The main idea of business incubation is to create a support environment for start-up and emerging companies, thereby contributing to the creation of new local jobs, economic development and technology transfer. Thus, the main objective of a business incubator is to support entrepreneurs to create successful start-ups within a reasonable period of time. A lot of consideration has been dedicated to the effect of business support strategies on firm development, incubator support performance, start-up success, entrepreneurship development and creative industries (Adelowo, Olaopa, & Siyanbola, 2012; Fatoki, Obaji, Obiekwe, Oduebe & Olugbade, 2015; Balogun, Obaju & Olugbade, 2014; Amosa, Omolabi & Suleiman, 2017; Liu, Liu & Pi, 2017). A paucity of research exists on these constructs.

In Nigeria, SMEs lack strong business networks as a dimension of business incubation to connect with external business associates, suppliers and potential customers, expand the frontiers of their business and improve their market share. In today's Nigeria business environment, creating sustainable value for customers and shareholders requires creating effective business networks. SMEs in Nigeria have witnessed increased competition in the recent past and these has forced companies to go back to the drawing board to seek new ways of expanding their businesses and reach new markets more exhaustively for their products (Amosa, Omolabi & Suleiman, 2017). A major cause of this problem has been lack of accessing more knowledge and competence through networks with other firms (Lin & Lin, 2016). Existing scholarly literatures by (Adejumo & Akinyemi, 2017; Kesale, 2017; Ede, Mile, Ode & Wombo, 2014; Eveleens, Rijinsove & Welle, 2017) have emerged and have examined financial literacy and SME’s performance, business incubator characteristics and SME’s growth, business incubators and performance outcomes, business model development and start-up success, entrepreneurial competences and firm value. However, few empirical literatures seem to look at the relationship between business incubation (financial support, business networks, market expertise and technology support) and profitability. Some of these literatures have not provided adequate evidence on connection between market expertise and profitability. However, scholars (Iwu, 2017; Asikhia, Elemo, Kabuoh, Oduyo, & Oyeku, 2014; Selma, 2017; Boyd & McDermott, 2017) have identified the importance to fill this gap.

Nwaizugbo and Omodafe (2017) observed that while the SMEs constitute over 70 percent of the total enterprises in Nigeria and enjoyed reasonable support from international agencies, government and nongovernmental organizations (NGOs), they contribute less than ten percent of the nation’s gross domestic product (GDP) in terms of creation of employment, poverty reduction and industrial development (Adejumo & Akinyemi, 2017). They also observed that most SMEs’ growth is hindered by a myriad of constraints which include lack of value-added marketing strategies, lack of modern
technology, and lack of marketing expertise among others which are indicators of poor business incubation (Adejumo & Akinyemi, 2017). Interestingly, studies have consistently found that innovative marketing practices are relevant to both small and large businesses (Mavondo, 2011; Reijonen, 2010; Carson, Gilmore & O’Dwyer, 2009). In this age of expanding globalization of trade/communication, technological advancement and challenging economic climate, it is observed that majority of Nigerian SMEs tend to be mired in a survival strategy rather than expanding with only about 40 percent celebrating their fourth anniversary; an indication of a high mortality rate and poor performance which is seen clearly through consistently declining levels of profits has been witnessed (Mohammed & Obelagu-Nzelibe, 2014).

Despite the large number of studies on business start-up strategies, a number of these studies have so far yielded varying results, this calls for academic concern to scholars and practitioners as to whether business incubation affect firm size of small and medium enterprises. Quite a lot of attention has been devoted to the effect of business incubation practice and selection performance, business support and small business survival, support mechanism and business incubation performance, technological start-ups and success (Edokpolo & Muritala, 2017; Anita, Inger, Jarle & Oystein, 2016; Obaji, Olugu & Senin, 2016; Olawale, 2014; Cornwall, D’Souza, Matthews & Schenkel, 2015). Little attention has been given to issues associated with how business incubation affect firm size of small and medium enterprises in the Nigeria context. Hence, this study seeks out to investigate the effect of business incubators on performance of SMEs in Oyo State, Nigeria

2. Research Hypothesis

- There is no significant relationship between predictors of business incubation and market share of selected SMEs in Oyo State, Nigeria
- There is no significant relationship between predictors business incubation and profitability of selected SMEs in Oyo State, Nigeria
- There is no significant relationship between predictors business incubation and firm size of selected SMEs in Oyo State, Nigeria

3. Methodology

3.1 Research Design

This study employed the survey research design to examine the effects of business incubation on performance of SMEs in Oyo State, Nigeria. This design was appropriate for this study because it extensively described the effects of the independent variables on the dependent variables

3.2 Population

The population of small and medium scale enterprises in Oyo State is seven thousand, nine hundred and eighty-seven (7,987).

3.3 Sample size and sampling Technique

This study used all the three hundred and eighty-six (386) SMEs that have enjoyed incubation services in Oyo State, Nigeria. Total enumeration technique was used because of the fact that it allowed for a complete evaluation of the entire population.

3.4 Research Instrument

The data gathering instrument for this study was a well-structured questionnaire adapted by the researcher. The purpose of using questionnaires survey was because of the direct response, feedback and the literacy level of the proposed respondents

3.5 Method of Data Analysis

Data was analysed using inferential statistics (Multiple regression analysis). Inferential statistics was used to test the three hypothesis stated in the study to test the effect of independent variables on the dependent variables. The regression analyses provided estimate of equations to predict the magnitude of the dependent variable and provided values for the predictor variables.
4. Result

Table 1: Multiple regression analysis for effects of business incubation dimensions on market share of SMEs in Oyo State, Nigeria

<table>
<thead>
<tr>
<th>N</th>
<th>Model</th>
<th>B</th>
<th>Sig.</th>
<th>T</th>
<th>ANOVA (Sig.)</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>F (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>311</td>
<td>(Constant)</td>
<td>26.667</td>
<td>0.000</td>
<td>13.602</td>
<td>0.003b</td>
<td>0.050</td>
<td>0.038</td>
<td>4.064 (4,306)</td>
</tr>
<tr>
<td></td>
<td>Financial Support</td>
<td>-0.136</td>
<td>0.064</td>
<td>-1.860</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business Networks</td>
<td>-0.214</td>
<td>0.002</td>
<td>-3.161</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Market Expertise</td>
<td>0.099</td>
<td>0.133</td>
<td>1.506</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technology Support</td>
<td>0.033</td>
<td>0.636</td>
<td>0.474</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Predictors: (Constant), Financial Support, Business Networks, Market Expertise, Technology Support
Dependent Variable: Market Share

Table 1 above shows the multiple regression analysis results for the effect of business incubation predictors (financial support, business networks, market expertise and technology support) on market share of SMEs. The results reveals that business networks (β = -0.214, t = -3.161, p<0.05) has a significant effect on market share of SMEs. Although a business network has a significant effect on market share, the effect is a negative one. Further, the results of the multiple regression analysis revealed that financial support (β = -0.136, t = -1.860, p>0.05) has a negative and insignificant effect on market share while market expertise (β = 0.099, t = 1.506, p>0.05) and technology support (β = 0.033, t = 0.474, p>0.05) have positive and insignificant effect on market share of SMEs. This implies that SMEs in Oyo State should pay less attention towards financial risks sharing and granting access of their resources and assets to others as these might have a negative effect on their market share. The correlation coefficient, R² value of 0.050 indicate that business incubation dimensions have a weak positive and significant effect on market share of SMEs in Oyo State, Nigeria. The coefficient of multiple determination, adjusted R² value of 0.038 indicates that business incubation dimensions only explained 3.8% of the changes in market share of the SMEs in Oyo State. Also, the F-statistics (df = 4, 306) = 4.064 at p = 0.003 (p<0.05) indicates that the overall model is significant in predicting the effect of business incubation dimensions on market share which implies that business incubation dimensions have a significant effect on market share of SMEs in Oyo State, Nigeria.

Table 2: Summary of multiple regression analysis for effects of business incubation dimensions on profitability of SMEs in Oyo State, Nigeria

<table>
<thead>
<tr>
<th>N</th>
<th>Model</th>
<th>B</th>
<th>Sig.</th>
<th>T</th>
<th>ANOVA (Sig.)</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>F (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>311</td>
<td>(Constant)</td>
<td>5.628</td>
<td>0.000</td>
<td>3.905</td>
<td>0.000b</td>
<td>0.453</td>
<td>0.446</td>
<td>63.416 (4,306)</td>
</tr>
<tr>
<td></td>
<td>Financial Support</td>
<td>0.480</td>
<td>0.000</td>
<td>8.930</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business Networks</td>
<td>0.011</td>
<td>0.823</td>
<td>0.223</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Market Expertise</td>
<td>0.010</td>
<td>0.828</td>
<td>0.217</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technology Support</td>
<td>0.294</td>
<td>0.000</td>
<td>5.692</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Predictors: (Constant), Financial Support, Business Networks, Market Expertise, Technology Support
Dependent Variable: Profitability

Table 2 shows the multiple regression analysis results for the effect of business incubation dimensions (financial support, business networks, market expertise and technology support) on profitability of SMEs. The results reveals that financial support (β = 0.480, t = 8.930, p<0.05) and technology support (β = 0.294, t = 5.692, p<0.05) have positive and significant effect on profitability of SMEs while business networks (β = 0.011, t = 0.223, p>0.05) and market expertise (β = 0.010, t = 0.217, p>0.05) have positive and insignificant effect on profitability of SMEs. This implies that SMEs in Oyo State should pay more attention towards accessing finance and investing in technology as this would improve their profitability.

The correlation coefficient, R² value of 0.453 indicate that business incubation dimensions have a weak positive and significant effect on profitability of SMEs in Oyo State, Nigeria. The coefficient of multiple determination, adjusted R² value of 0.446 indicates that business incubation dimensions only explained 44.6% of the changes in profitability of the SMEs in Oyo State. Also, the F-statistics (df = 4, 306) = 63.416 at p = 0.000 (p<0.05) indicates that the overall model is significant in predicting the effect of business incubation dimensions on profitability which implies that business incubation dimensions have a significant effect on profitability of SMEs in Oyo State, Nigeria.
Table 3: Summary of multiple regression analysis foreffects of business incubation dimensions on firm size of SMEs in Oyo State, Nigeria

<table>
<thead>
<tr>
<th>N</th>
<th>Model</th>
<th>B</th>
<th>Sig.</th>
<th>T</th>
<th>ANOVA (Sig.)</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>F (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>311</td>
<td>(Constant)</td>
<td>-1.060</td>
<td>0.454</td>
<td>-0.750</td>
<td></td>
<td>0.000³</td>
<td>0.618⁴</td>
<td>0.613</td>
</tr>
<tr>
<td></td>
<td>Financial Support</td>
<td>0.646</td>
<td>0.000</td>
<td>12.256</td>
<td></td>
<td>0.000³</td>
<td>0.618⁴</td>
<td>0.613</td>
</tr>
<tr>
<td></td>
<td>Business Networks</td>
<td>0.079</td>
<td>0.104</td>
<td>1.630</td>
<td></td>
<td>0.000³</td>
<td>0.618⁴</td>
<td>0.613</td>
</tr>
<tr>
<td></td>
<td>Market Expertise</td>
<td>-0.076</td>
<td>0.110</td>
<td>-1.601</td>
<td></td>
<td>0.000³</td>
<td>0.618⁴</td>
<td>0.613</td>
</tr>
<tr>
<td></td>
<td>Technology Support</td>
<td>0.435</td>
<td>0.000</td>
<td>8.598</td>
<td></td>
<td>0.000³</td>
<td>0.618⁴</td>
<td>0.613</td>
</tr>
<tr>
<td></td>
<td>Predictors: (Constant), Technology Support, Business Networks, Financial Support, Market Expertise</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.000³</td>
<td>0.618⁴</td>
<td>0.613</td>
</tr>
</tbody>
</table>

Dependent Variable: Firm Size

Table 3 shows the multiple regression analysis results for the effect of business incubation dimensions (financial support, business networks, market expertise and technology support) on firm size of SMEs. The results reveals that financial support (β = 0.646, t = 12.256, p<0.05) and technology support (β = 0.435, t = 8.598, p<0.05) have positive and significant effect on firm size of SMEs while business networks (β = 0.079, t = 1.630, p>0.05) has a positive and insignificant effect on firm size and market expertise (β = -0.076, t = -1.601, p>0.05) has a negative and insignificant effect on firm size of SMEs. This implies that SMEs in Oyo State should concentrate on access of secured funding and information communication within the business in order to improve their firm size. The correlation coefficient, R² value of 0.618 indicate that business incubation dimensions have a moderate positive and significant effect on firm size of SMEs.

The coefficient of multiple determination, adjusted R² value of 0.613 indicates that business incubation dimensions only explained 61.3% of the changes in firm size of the SMEs in Oyo State while the remaining could be attributed to other factors not included in this model. Also, the F-statistics (df = 4, 306) = 123.552 at p = 0.000 (p<0.05) indicates that the overall model is significant in predicting the effect of business incubation dimensions on firm size which implies that business incubation dimensions have a significant effect on firm size of SMEs in Oyo State, Nigeria.

5. Discussion

The purpose of this study was to investigate the effect of business incubation market shares, profitability and firm sizes of SMEs in Oyo state, Nigeria. This was done by examining the predictors of business incubation (Financial Support, Business Networks, Market Expertise and Technology Support) on the dependent variables (Market Shares, Profitability and Firm Size). The result of the regression analysis indicated that the predictors of the independent variables business networks, market expertise and technology support has a significant effect on firm size, however financial support showed no significance. The result of this findings is in agreement with the findings of Eveleens, Niesten, and Rijnsoever (2017) who examined how network-based incubation helps start-up performance: a systematic review against the background of management theories and results shows that the articles found a positive influence of network-based incubation on market share, sales growth and profitability. Roberta, Roberto and Silvia (2017) measured the effect of business incubators on the innovation performance of start-ups and results show that incubation programme positively moderates the impact of business and technical capabilities and collaborations on the innovation performance of start-ups. Mohammed, Mohammed, and Salman (2017) examined business incubators and its effects on success of incubated firms in Jordan. Results showed that strategic incubation services and support incubation services are positively associated to the success of incubated firms.

Cooper, Hamel, & Connaughton (2012) noted that business incubators strive to develop robust business and social networks to bring value to their resident companies in the form of intellectual and material resources. Also, Sá and Lee (2012) state that one of the central features of incubators is the provision of networking opportunities for tenants to establish collaborative relationships with other organizations. In line with this reasoning, Hansen, (2000) note that “most business incubators provide office space, funding, and basic services. The better ones also offer an extensive network of powerful business connections, enabling fledging start-ups to beat their competitors to market.”

Furthermore the results of the multiple regression analysis revealed that financial support (β = 0.480, t = 8.930, p<0.05) and technology support (β = 0.294, t = 5.692, p<0.05) made positive and significant effect on profitability of SMEs in Oyo State while business networks (β = 0.011, t = 0.223, p>0.05) and market expertise (β = 0.010, t = 0.217, p>0.05) have positive and insignificant effect on profitability of SMEs in Oyo State, Nigeria. This result is in consonance with
the studies of Shepard (2013) and Dahlstrand and Politis (2013) found positive association between market expertise as a dimension of business incubation in terms of knowledge and capability, and profitability of firms. Also, Angulo-Ruiz and Pergelova (2014) found that financial resources were an important factor in incubator performance. In another study, Laosirihongthong and Somsuk (2014) found a significant and positive relationship between financial resources and incubator performance. Theoretically, the finding of this study provides support for real options theory. Business incubation performance (BIP) is measured in terms of incubate growth and financial performance at the time of incubator exit. Operationally, there are five different mutually exclusive incubate outcome states at the completion of the incubation process, firstly, the incubate is surviving and growing profitably. Secondly, the incubate is surviving and growing and is on a path toward profitability. Thirdly, the incubate is surviving but is not growing and is not profitable or is only marginally profitable. Fourthly, the incubate operations were terminated while still in the incubator, but losses were minimized. Fifthly, the incubatee operations were terminated while still in the incubator, and the losses were large. A real options perspective, however, can be used to attain the performance indicators.

Shaheen and Malik (2012) described firm size as the quantity and array of production capability and potential a firm possesses or the quantity and diversity of services a firm can concurrently make available to its clients. Firm size plays a significant and crucial role in explaining the kind of relationships the firm has within and outside its operating environment. Babalola (2013) argues that the larger a firm is, the more the influence it has on its stakeholders, and so large firms tend to outperform small firms. The result of hypothesis three shows a significant relationship between financial support and technology support, this can be attested to by previous researches in Nigeria (Adelowo and Egbeotokun, 2012; Adegbite, 2002) in their study established that technological competence was a precursor for increase in firm size and also found a positive significant effect of technology support on firm expansion in Nigeria. Likewise, other studies outside Nigeria such as Carayannis and Von Zedtwitz (2005); Bøllingtoft and Ulhøi (2005) and Winger (2000) have reported positive findings between technological and infrastructural support as a dimension of business incubation and firm size. Also, Allahar and Brathwaite (2016) emphasize that incubation programmes diversify economies, commercialize technologies, create jobs and create wealth. Similarly, Salvador (2011) found that business incubators provide infrastructure, technology and related services to promote technological innovation and help the new ventures survive in their early stages and also increase in size.

6. Conclusion

From the result of the study, the predictors of business incubation (financial support, market expertise and technology support) have both positive and negative significant effect on the dependent variable (Market shares, Profitability and Firm Size) therefore it is important for entrepreneurs to focus on important factors such as access to long-term debt finance, flexible repayment period, access of secured funding, marketing intelligence, investment in training and development, environmental assessment and scanning, technological advancement, training on ICT use and application, investment in ICT infrastructure in order to enhance their performance.

References


