AN INTEGRATED FRAMEWORK FOR THE CRITICAL SUCCESS FACTORS AND INCUBATOR PERFORMANCE IN NIGERIA

Nkem O Obaji, Nile University of Nigeria
Daniel O Cross, Nile University of Nigeria
Dele Olaolu, Nasarawa State University

ABSTRACT

The aim of the research was to review the extent to which adaptation moderates the relationships among the various critical success factors (CSFs) and incubator performance within the Nigerian context. The research was conducted in order to conceptualize a unified model for the CSFs and incubator performance. As a conceptual paper, the study delved into an in-depth review of the literature.

The outcome of the review showed that the CSFs are the antecedents of incubator performance. The contribution of the study is buttressed by the inclusion of a third variable called moderator (adaptation). The moderator was introduced for the reason of inconsistency between the CSFs and Incubator performance.

It was recommended amongst others that the business incubator theory and model from developed countries should not just be applied directly by the developing countries like Nigeria; local context adaptation needs to be integrated to the foreign technology in order to suit the country's technological needs.

Keywords: Critical Success Factors, Incubator Performance, Technological Needs.

INTRODUCTION

The necessity of entrepreneurship development in many countries throughout the world have been studied extensively (e.g. Bagis, 2016; Blackburn, 2016; Bonito, Daantos & Mateo, 2017; Chowdhury, 2017) as such relative number of countries globally have instituted programmes and policies to support entrepreneurship within their localities. The business incubator is one of the support programmes that encourage entrepreneurship development. Similarly, business incubation programme is the policy tool to accomplish it. In the recent past, the promotion of entrepreneurship has been achieved through the business incubation programme (Abu-Jalil, 2017). The Technology Business Incubation Programme has been acknowledged as an authentic established system for the commercialization of Research and Development (R&D) results. Several countries have used the initiative as a strategy for job creation as well as wealth creation. McAdam and Marlow (2008) demonstrated that the concept of business incubator as a suitable policy tool for assisting the development and advancement of private venture enterprises. Business incubator has the likelihood of encouraging and helping in the application of local inventions.

It also serves as the functional link between research and industry. One of the reasons for the adoption of the programme by several countries, according to Albort-Morant and Oghazi

(2016) was because of the fact that only limited number of budding business organizations makes it through their early periods of advancement. Furthermore, Mas-Verdú, Ribeiro-Soriano and Roig-Tierno (2015) opined that business incubators stimulate innovation and regional development. Consequently, the need to raise the quantity of business incubator became a focus point for policymakers (Bergek & Norrman, 2008; Bruneel, Ratinho, Clarysse & Groen, 2012; Hackett & Dilts, 2004; Rice, 2002). Numerous studies discover that business incubators are a tool to nurture entrepreneurship (e.g. Dee, Gill, Livesey & Minshall, 2011; Lewis, Harper-Anderson & Molnar, 2011; McAdam & Marlow, 2007; Smilor & Gill, 1986) since they make available support and aid to start-ups ((Roberts, 1991). Lai and Lin (2015) assert that the services offered by the business incubators are vital for the new firms.

Academically, business incubation has been attracting many research studies in developed and developing countries (e.g. Alan 2012; Verma 2004; Suresh 2012; Obaji et al., 2016; Mbewana, 2007; Obaji, 2015). This is attainable by the investigation of business policies that bolster economic development and growth (Salem 2014).

The basic objective of incubators is to bring forth successful businesses and to support entrepreneurs (Briggs 2016). Business incubators offer the following primary assistance to small firms under incubation process; provide hands-on management assistance, access to financing, business and technical support services, shared office space, access to equipment

In the Nigerian context of the TBI initiative, the key advantage derived from the programme includes reduction in the operating cost of individual enterprise, thereby making them more competitive. Others include the advancement of technology-based small and medium scale enterprises (SMEs); assisting the SMEs in the identification of products/services worthy of entrepreneurial risk; accelerating the technology acquisition/transfer from the Research Institutes, tertiary institutions to entrepreneurs among others.

Despite the fact that scholarly works on business incubation especially at the critical success factors (CSFs) standpoint has been extensively addressed, (e.g. Kumar & Ravindran, 2012; Lee & Osteryoung, 2004; Sun, Ni & Leung, 2007) there is still insufficiency of research works on the relationship among incubator success factors, incubator adaptation and incubator performance. Unlike the existence of large amount of research literature associated with traditional success factors research, incubator adaptation has not been essentially studied.

REVIEW OF PRIOR LITERATURE AND HYPOTHESES

Business Support (BS)

Business Support has attracted attention as an important contributing factor to an incubator's success. According to Albort-Morant and Ribeiro-Soriano (2016), BS is seen as means of helping incubatees productivity and creating work situations in which individual and organizational goals are integrated. One of the key difficulties confronting the procedures of the new businesses is lack of management aptitudes and in addition business development services. To bridge this gap for the start-ups, there is urgency for the incubator management to provide such services to the incubatees. It therefore seems necessary for the BS to be a critical factor for the success of business incubation programme. Ratinho, Harms and Groen (2010) consider business support as a key element of business incubation; it also views it as its utmost multidimensional constructs. Bruneel et al. (2012) usually acknowledged business support

services as important elements of knowledge attainment inside business incubators. Studies related to business incubation have attempted to ascertain a range of key success factors and best practices for enhancing the successfulness of business incubators (e.g. Theodorakopoulos, K. Kakabadse & McGowan, 2014). Business incubators commonly provide incubator tenants the required business assistance services as one of the assets required by the incubatees to be continued and ultimately become fully developed, therefore business support is a very vital part of incubation process. Accordingly, this study hypothesized as follows:

H1: Business support is positively related to incubator performance.

Infrastructure (Infra)

Several scholars have identified Infrastructure to be one of the key tangible resources that necessitate to be examined for the success of a business incubation programme. However, the foundation upon which business incubation sustainability and competitiveness can be built have basically repositioned from tangible to intangible resources. Resources, capabilities and competencies evidenced in a firm's intellectual capital are progressively determining present knowledge economy.

However, numerous scholars have pointed out that for incubation programme to be effective there ought to be suitable services and infrastructural advancement (Campbell & Allen, 1987; Verma, 2004). In their suggestion for the development of incubation initiative, Kumar and Ravindran (2012) discussed how essential the role of infrastructure is, to the success of incubation programme. Similarly, Chan and Lau (2005) asserted that infrastructure is essentially a very significant component to the tenant firms.

Therefore, the resulting formulated hypothesis is established:

H2: Infrastructure will be positively related to incubator performance.

Financial Resources (FR)

In any business endeavour, finance is usually the most important component for the survival and sustainability of that business. Business incubation programme specifically and entrepreneurship generally should not be different from that of business endeavour. When it is not available or adequate, other things will not be sufficiently put in place. For instance, when funding is not enough other basic infrastructures will not be put in place. If the desired infrastructures are not in place the incubator programme will not be successful. Alan (2012) highlighted that financial resource as incubator success antecedent. This is also the perception of other scholars who found a positive relationship between finance and incubator success (Pergelova & Angulo-Ruiz, 2014; Somsuk & Laosirihongthong, 2014). This is also in line with RBV (Barney, 1991; Wernerfelt, 1984) which submit that incubator performance is significantly influenced by financial resources. Taken together, this research submits that financial resources perform a vital function in informing the presence of incubator effectiveness. These discourses, therefore, contribute to the below stated hypothesis:

H3: Financial resources will be positively related to incubator performance.

Government Policy (GP)

As government is the major benefactor of entrepreneurship development generally and a pacesetter in the business incubator programme; its declaration and enactments related to policies always go a very long way to influencing and impacting on the success of business incubation programme. It is appropriate to say that any policy that government reels out always come to be for development of entrepreneurship. Ideally, when the policy is unfavourable to entrepreneurship for whatever reasons, government usually brings in a palliative measure to ameliorate the hardship that may befall on small business practitioners. One such palliative action includes tax incentives. In the narrative of how government policy implementation is key to incubation performance, Obaji, Senin and Olugu (2016) highlight how well-executed favourable policy by government will obviously enhance the successfulness of the incubators by way of assisting the tenant firms. Thus, the formulated hypothesis is formulated as follows:

H4: *Government policy is positively related to incubator performance*.

Incubator Adaptation

The growth of the TBI programme has been hampered by adaptation problem (Obaji, Senin & Richards, 2012). The adaptational issue is related to how the concept which is a western-driven model was misapplied by policy makers as well as incubation practitioners. The difficulties encountered by the Nigerian national programme possibly reflect how policies or models imported from somewhere else required being adapted to local contexts for better chances of success. This is particularly policies or models taken from advanced nations and applied in developing country contexts. An adaptation that is applied directly will not go down well with the programme performance outcome. Adaptation as a construct in this study is integrated as a moderator to see if this variable plays a considerable role in strengthening or dampening relationship that exist among the critical success factors and incubator performance. A strong contingent effect on the independent variable-dependent variable relationship exists due to the presence of the moderating variable. It significances that the presence of the moderating variable changes the previous association between the independent and dependent variables. Assessing adaptation as a moderator could increase researchers' theoretical understanding and provide them with empirical evidence on how adaptation might be a potential moderator. The choice of adaptation as a moderator is based on the fact that technology business incubation programme as a western-driven model needs to be modified to local situation. Tavoletti (2013) posits that the success of business incubation programme in developing country context is dependent on how well the country in question localizes it to suit its needs. This is also the view of Hoshino (2009) who stated that employing exactly the same practice would not be effective. Other authors also tow the same line of argument (Mbewana, 2007; Pals, 2006). These contributions therefore, lead to the formulation of the following hypothesis:

H5: Adaptation moderates the relationship between the critical success factors and incubator performance.

CONCEPTUAL FRAMEWORK

The conceptual model aims to examine the linkage between BS, Infra, FR, GP and Incubator Performance with Adaptation as a moderator. Based on the proposed research model as shown in Figure 1 and outcomes of empirical studies as indicated in the review of literature, it can be stated that BS, Infra and FR are all antecedents of incubator performance while adaptation is an antecedent to both the predictor variables and the criterion variable. The framework, nevertheless a proposed research in nature, shows that the impact of BS, Infra and FR on IP is dependent on Adaptation. This implies that the strategic activities of the programme will have better influence on incubator programme performance when the incubator programme is objectively adapted to suit the local situation. Since the business incubation programme is a western-driven model, therefore, there is need for local context adaptation.

The fundamental concept of this model is that for the effectiveness of business incubation programme, critical resources are needed. Generally, several scholarly works have shown that numerous elements define incubators performance (Al-Mubaraki, Ahmed & Al-Ajmei, 2014; Kumar & Ravindran, 2012; Mbewana, 2007; Verma, 2004). These scholars addressed the incubator performance from diverse viewpoints. Commonly different researchers use wide-ranging indicators for classifying as well as measuring incubator success. With fine-tuning and changes, this study has restructured the framework by adding two other variables; government policy and incubator adaptation. In studies conducted by Kumar and Ravindran (2012) and Mbewana (2007), it was found that resources (competitive advantage) characteristically support the incubates and accordingly enhance the incubation programme performance.

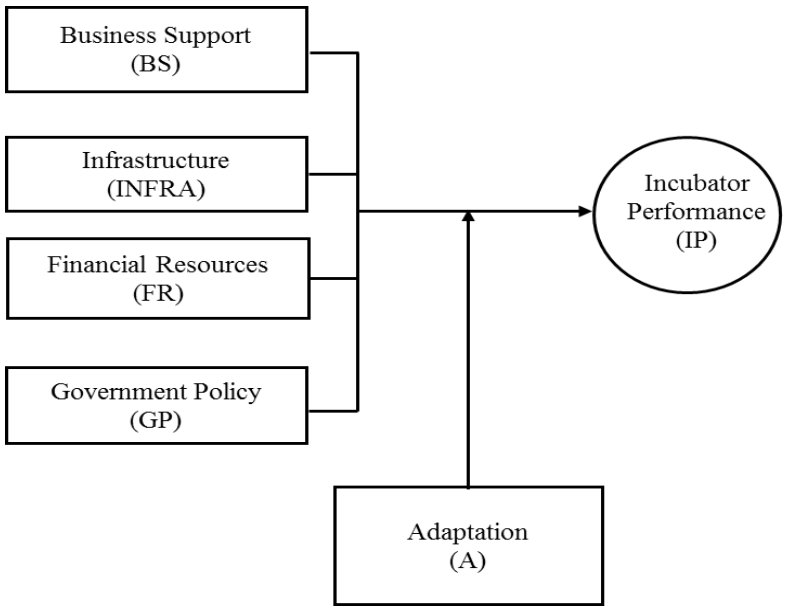

FIGURE 1
CONCEPTUAL FRAMEWORK

METHODOLOGY

This study is purposed to offer an initial literature review, proceeding to a complete scholarly work intended at originating a predictive model that will help entrepreneurship development experts in Nigeria to have a better and dependable prediction of final developing entrepreneurship through the business incubation programme. Existing scholarly works has shown that the CSFs have an influence on the performance of incubators as well as adaptation playing an influential role between the CSFs and incubator performance. The evaluation of these assistance components may perhaps support in determining the final incubation performance outcome. The approach envisaged in the later part of the research when data are collected and analysed will provide information for the development of a predictive model for application in Nigeria. The study will clarify the issues involved at different stages of data collection and analysis which is required to be given due consideration. Further work on this proposed study will clarify the data analysis methods which would be useful to accomplish this study and taking into account the appropriate modelling method.

This proposed model will adopt a mixed methods strategy with the explanatory sequential design. The implementation processes for this strategy involves using both quantitative and qualitative research, respectively starting with quantitative data collection. In this method, qualitative data building will be formed based on the quantitative data (Creswell, 2009). Consequently, quantitative data collection and analysis will be applied in first stage, followed by qualitative data collection and analysis in second stage, with more emphasis on quantitative data. Cooper and Schindler (2014) posit that the goal of a quantitative approach is to test or determine hypotheses and to produce generalizable results; the suggestion is that it is often useful in answering the ‘what’, ‘who’, ‘where’ and ‘how many’, as it is the case with the proposed research in this paper. Marshall (1996) provides a contrast to quantitative approach by stating that the overall goal of qualitative approach is to offer clarification and understanding of complex psychosocial issues and are most useful for answering the ‘why’ and ‘how’ type questions. The rationale for employing a sequential explanatory research design is premised on the fact that it is convenient when unexpected results arise from a quantitative research (Morse, 1991).

Based on the explanatory sequential mixed method design, the worldview or paradigm moves from working in accordance to post-positivism when looking at the measurements and hypotheses tested in the quantitative phase to constructivist principles, during the qualitative phase. The sequential stages in the research design indicate a shift of research paradigm during the process. This shift is supported by (Patton, 1980) proposal of paradigm of choices, where different methods are appropriate for different situation and research questions. The proposed employment of mixed methods in this research will enable the researcher to achieve complementary insight from both the incubator tenants and the managers of incubation facilities in Nigeria in understanding the issues related to business incubation performance in Nigeria.

In the build-up to the collection of data process for the future model, a self-administered questionnaire will be employed. The answered questionnaires will be collected, collated and analysed by means of Statistical Product and Service Solutions (SPSS) and Structural Equation Model (SEM) specifically, the Smart Partial Least Squares (PLS). On the qualitative part of the study, a focus group interview will be conducted with the sample frame of the respondents while the analysis stage of the qualitative will utilize the ATLAS.ti software.

CONCLUSION

This study has been conducted to examine the factors that are critical to incubator performance. The study is a conceptual paper where the research design will involve a mixed methods research design. To conclude it can be said that comprehensive skimming of literature has offered us with numerous factors accountable for success of incubation programme. A key finding from literature shows that there is inconsistency between the CSF and incubator performance, hence a third variable called moderator was introduced to see if the moderator can strengthen the two directional impacts. In this study, adaptation was incorporated as moderator to see if this construct performs a key function in strengthening or dampening either the negative or positive effect of CSF on incubator performance. On the proposed analysis of the study, the structural equation Modelling/technique will be employed using the Partial Least Squares software to analyse the quantitative part of the study while the qualitative part will employ ATLAS.ti analytical software. For further research five research propositions are hypothesized for incubation performance. These formulated research hypotheses are used to develop a research framework as shown in Figure 1. It is proposed that this conceptual model can be tested and corroborated by means of empirical studies concerning survey of critical success factors for business incubator and case studies of successful incubation programmer. There is likelihood that the framework will be an effective tool for thorough analysis and understanding of the concept of business incubation. Limitation of this work is that the model is conceptual in nature and should be validated by further research. Also, the work is limited to the extent of not utilizing any theory related to entrepreneurship.

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