

THE IMPACT OF GOVERNMENT POLICY ON THE RELATIONSHIP
BETWEEN CRITICAL SUCCESS FACTORS AND INCUBATION
CONTRIBUTIONS

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DEDICATION

This scholarly work is dedicated to my immediate family – the OKPA OBAJI's.

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ABSTRACT

The business incubation model has been adopted by many countries since the concept was first introduced in the United States. It has now received much attention among policymakers and academics especially within the field of entrepreneurship. The model was adopted in Nigeria in 1993 but the results of the program seem to have failed to live up to expectations. This study therefore looked into the role of government policy towards incubator's performance in Nigeria. Data were collected from the stakeholders in Nigeria with direct involvement in the national program. A sequential mixed methods approach was applied in this study. The quantitative survey data were first analysed using Partial Least Squares – Structural Equation Modeling (PLS-SEM), then the thematic analysis of interview data were conducted to substantiate the survey findings. Based on both Resource Based View (RBV) and contingency theory, the study confirms the three critical success factors affecting incubator's performance: business support, financial resources and infrastructure. It also found the evidence of the moderating role of government policy on the relationship between critical success factors and incubator's performance. This study justified the needs for strong business support, adequate financial resources and infrastructure, and more importantly, an effective government policy to ensure the success of national incubation program. This study made conceptual contribution by linking RBV and contingency theory in explaining the contributing factors to business incubation performance.

ABSTRAK

Model inkubasi perniagaan telah diterima pakai oleh banyak negara sejak konsep ini mula diperkenalkan di Amerika Syarikat. Model ini kini mendapat perhatian dalam kalangan pembuat dasar dan ahli akademik terutamanya dalam bidang keusahawanan. Model ini telah diterima pakai di Nigeria pada tahun 1993 tetapi hasil program ini nampaknya tidaklah sebaik seperti yang diharapkan. Oleh itu kajian ini dijalankan untuk melihat peranan dasar kerajaan terhadap prestasi inkubator di Nigeria. Data dikumpulkan daripada pihak berkepentingan di Nigeria yang terlibat secara langsung dengan program kebangsaan ini. Pendekatan kaedah campuran berurutan diguna pakai dalam kajian ini. Data kuantitatif daripada soal-selidik dianalisis terlebih dahulu menggunakan Kuasa Dua Terkecil Separa – Model Persamaan Berstruktur (PLS-SEM), kemudian analisis tema data temu bual dilakukan untuk menguatkan hasil dapatan tinjauan. Berdasarkan kedua-dua teori Pandangan Berasaskan Sumber (RBV) dan teori kontingensi, kajian ini mengesahkan tiga faktor kejayaan kritikal yang memberi kesan ke atas prestasi inkubator: sokongan perniagaan, sumber kewangan dan infrastruktur. Kajian juga mendapati bukti peranan moderator polisi kerajaan dalam hubungan antara faktor-faktor kejayaan kritikal dan prestasi inkubator. Kajian ini memberikan justifikasi terhadap keperluan sokongan perniagaan yang kuat, sumber kewangan dan infrastruktur yang mencukupi, dan yang lebih penting lagi, polisi kerajaan yang efektif dalam memastikan kejayaan program inkubator kebangsaan. Kajian ini menyumbang dari segi konseptual dengan menghubungkan teori RBV dengan teori kontingensi dalam menerangkan faktor-faktor yang menyumbang kepada prestasi inkubator perniagaan.

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LIST OF ABBREVIATIONS

AMOS	-	Analysis of Moment Structures
AVE	-	Average Variance Extracted
BS	-	Business Support
CMV	-	Common Method Variance
CSFs	-	Critical Success Factors
EFA	-	Exploratory Factor Analysis
EKUINAS	-	Ekuiti National Berhad
FR	-	Financial Resources
F ²	-	Effect Size
GOF	-	Goodness of Fit
GP	-	Government Policy
Infra	-	Infrastructures
IP	-	Incubator Performance
KMO	-	Kaiser-Meyer-Olkin
MAVCAP	-	Malaysia Venture Capital Management Berhad
MOST	-	Ministry of Science and Technology
MTDC	-	Malaysia Technology Development Corporation
PCA	-	Principal Component Analysis
PLS	-	Partial Least Squares
Q ²	-	Construct Cross Validated Redundancy
R ²	-	R-Squared Values
RBV	-	Resource Based View
R&D	-	Research and Development
SEM	-	Structured Equation Modeling
SMEs	-	Small and Medium Enterprises
SPSS	-	Statistical Package for the Social
TBI	-	Technology Business Incubation

TBIC	-	Technology Business Incubation Centre
TI	-	Technology Incubation
UNDP	-	United Nation Development Programme
USA	-	United States of America
VIF	-	Variance Inflated Factor
Vision 20:2020	-	By 2020 Nigeria will be one of the 20 largest economies in the world.
VRIN	-	Valuable, Rare, Immutable and non-Substitutable

CHAPTER 1

INTRODUCTION

1.1 Background of the Research

It has been generally acknowledged that Joseph Mancuso initially developed the business incubation model in the United States of America (USA) in 1959. Likewise it is recognised that the very first business incubator programme in the USA was set up in 1959 in Batavia, New York (Hackett and Dilts, 2004b). Diverse technology and service businesses were the focus of the earliest incubation initiative.

The business incubation programme supports entrepreneurship in the setting up of early stage businesses as a strategy to also encourage systems of economic development (Al-Mubarakhi et al., 2010). The assisting agency—the National Business Incubation Association (NBIA) supports through the provision of information and coaching assistance as well as access to linkage resources.

Business Incubation is defined by the NBIA as “a business support process that accelerates the successful development of start-up and fledgling companies by providing entrepreneurs with an array of targeted resources and services. These services are usually developed or orchestrated by incubator management and offered both in the business incubator and through its network of contacts”. The primary aim of business incubator is to assist new businesses succeed and thereby generate wealth and employment opportunities (NBIA; Pena, 2002). These kinds of incubator graduates possess the likelihood to generate employment opportunities, rejuvenate

local communities, commercialize completely new technological know-how, and improve community and also nation's financial systems (NBIA). Business incubators are generally created to help new venture as well as innovative firms with the supply connected with several services and resources in order to help business owners. The definition furthermore illustrates the incubator managements' significance for the reason that they are in the lead of incubation practices and methods.

Western Europe and North America are the commencement places for business incubator. Presently thousands of incubators spread in several countries worldwide. The key drive for business incubation is employment creation and support for economic recovery at the local level which will constantly impact certainly on the entire national economic perspective (Hires, 2010) as well as for successful SME development, thus supporting the socio-economic advancement of countries (Adegbite, 2001). Other definitions by different writers have a tendency to be related particularly by recognising four elements (business support, infrastructure, funding and networking) in the incubator definition by earlier scholars.

Numerous scientific studies have been carried out within the field of business incubation in the developed and developing nations. The incubation concept was firstly formulated as well as carried out in the United States of America (USA), then later adopted by the United Kingdom (UK) and other regions of Europe. Most countries of the world employ business incubation as a policy instrument to help and develop the small and medium enterprises (SMEs). SMEs have been universally accepted as a driver of the industrialization as well as development in most economies.

Since the 1990s, many emerging countries including Nigeria have adopted and implemented the incubation practices with a range of outcomes. The Nigerian initiative began in 1993 was also adapted from the model developed in the USA. However, the implementation of the programme in Nigeria has fallen short of expectations (InfoDev, 2010). The challenges Nigeria policy makers encountered in the implementation of the incubation model could be tracked in terms of concerns

and issues relating to the larger challenge of adapting a Western model as policy in a non-Western local environment.

The participation of Nigeria in the technology business incubation (TBI) initiative more specifically may perhaps be traced back to 1988. At this time the United Nation Development Programme (UNDP) Mission made contacts with four African countries (namely Gabon, Cote D'Ivoire, Nigeria and Zimbabwe) who held a meeting in Gabon (Okon, 2003). The aim of the summit was to develop a guideline for achieving technological development through the commercialisation of R&D results. Job creation and wealth creation through the useful exploitation of the relationship between science and technology and the private enterprise development were the concern raised by the UNDP Mission and the four countries including Nigeria (Okon, 2003).

Subsequently the general business incubation model was adopted, adapted and implemented in Nigeria in 1993. In that year the first centre was set up in Lagos, the commercial city of Nigeria (FMST, 2005). There are now exists twenty-nine incubation centres in Nigeria spread across all the regions of the country. The intention of the Nigerian government is to establish at least one incubation center in each of the thirty six States of the federation of Nigeria (Bubou and Okrigwe, 2011).

As part of the background of the study, it will be ideal to discuss those phenomena of interest as they relate to incubator performance. Such factors include business support, financial resources, infrastructure and government policy. Firstly, business support as it relates to business incubation programme is discussed.

The business incubation programme is intended to foster nascent enterprises within one to three years in some sort of isolated location. Here in the controlled environment, all the required support resources (training, mentoring) and all, that are required for the young firm to survive are given to them in order to make them to flourish. Theodorakopoulos et al. (2014) remarked that the tangible elements of business incubators' resources have been used as performance indicators, however, in the course of time, attention has been moved to intangible elements and social

aspects of business incubation. In the same vein, Pergelova and Angulo-Ruiz (2014) also described how resources can be both tangible and intangible. The key focus is placed on the intangible skills and resources of the firm as they are viewed to be non-tradable, more difficult to imitate and take time to build internally (Amit and Schoemaker, 1993). The argument for intangible resources such as business support as part of the CSFs may perhaps be that business incubator being service programmes rather than buildings can assist in growing firms, offer mentoring as well as handholding and support to a fledgling business in meeting its objectives; rather than the idea of coming to the incubator because of physical building.

Secondly, Financial Resources is the next in line for this study. Entrepreneurially speaking, the role of financial resources cannot be overemphasised. Levitsky (1996) stated that inadequate access to finance or loan has been one of the most prevalent impediments faced by SMEs in both developed and developing countries. In view of this Abdullahi et al. (2015) noted that inadequate funding indicates the key challenges which can considerably have an impact on the capability of a business to grow, upgrade its technology, expand its market, promote its management skills, increase productivity. In the Nigerian context, Olutunla (2005) opined that inadequate financial services have been found as the principal inhibitors to SMEs development and production in Nigeria. In the context of business incubation attainment, several authors have mentioned the role of finance in business incubator performance (Somsuk and Laosirihongthong, 2014; Pergelova and Angulo-Ruiz, 2014).

Furthermore, infrastructure is another factor that authors seem to pick as one of the elements related to the incubation process that spur entrepreneurs to come to the business incubator. It perhaps may be one of the key reasons for a number of entrepreneurs to relocate to the incubator. In entrepreneurship development generally, inadequate infrastructural facilities has posed a challenging difficulties to SMEs processes (Ojo, 2006). Abdullahi et al. (2015) mention the hindrance to infrastructure to include inadequate transportation system, water supply shortage, poor telecommunication system, as well as lack of electricity and solid waste management. Similarly, Osamwonyi and Tafamel (2010) noted that the obstacles to

the success of SMEs performance in Nigeria businesses have made business owners to look for alternative source of infrastructure; which increases the cost of running the fledgling business. In the business incubation study, Chan and Lau (2005) indicated that infrastructure is in essence a very significant element to the firms residing in the incubator. Kumar and Ravindran (2012) also, score a high point to infrastructure as an element of effective incubation programme.

Finally, the distinctiveness of government role in virtually all aspect of a national economy is consequent on the fact that government is always a pacesetter in any national activities. Government policy is a well-established element that wields a substantial sway on range of activities. (e.g. Asiedu, 2006; Ha and Kang, 2015; Yang, 2014; Guan et al., 2015; Ashford, 1993). However, Ojo (2006) noted that Government policies and programmes regarding SMEs have been recognised to be inappropriate, inadequate or inconsistent, and this has since prevented the SMEs growth and development. Furthermore, (Onugu, 2005) also expressed that the SMEs sector in Nigeria has not been flourishing generally for the reason of poor execution of some government policies and policy inconsistencies.

In developing countries, evidence abound that business incubation programme funding is basically depend on government (Akcomak, 2009). Therefore, the effect of government policies still overrules its inconsistencies as well as lack of implementation for the reason that, it still sponsor and fund the scheme. On the contrary, a study has shown that government policy inconsistency does not have significant influence on the performance of small and medium manufacturing firms (Bagshaw, 2014). However, there is considerable evidence in incubator performance literature that opine that lack of government policy makes business incubation practice to be ineffective. The reason being that without government effort through policies, the other resources may not be in place.

In sum, CSF associated with government policy may influence incubator performance in the course of gaining competitive advantage. Business incubation has helped in no small measure in fostering fledgling businesses through the offering of resources. In this study, an evaluation will be made of the role of government policy

in the performance of an incubator initiative programme in Nigeria. This will be done in relation to a related inquiry into the critical success factors of the incubation programme in the particular Nigerian context.

1.2 Motivation for the Research

It has been alluded through the literature that limited academic scholarly works on business incubation development and practice in Nigeria exist. To date, information and data related to the national incubation programme in Nigeria has been very scanty as well as principally descriptive – originating from communique of government agencies who are in direct involvement of incubation programme in Nigeria; and as such offers a somewhat constricted and old fashioned incubation practice viewpoint. This study offers a response to the thoughts of the Nigerian government (Vision20:2020, 2009) concerning technology business incubation programme practice as well as entrepreneurship in general. It could also be of greater advantage to the incubatees by providing them with enhanced knowledge and entrepreneurial practices related to incubation process and management. The outcome of this scholarly work offers a foundation for an insight into the present incubation programme state of affairs in Nigeria and suggest recommendations for the enhancement of incubation management as related to knowledge and best practices. Furthermore, the outcomes of this scholarly work are noteworthy to contemporary and future entrepreneurship studies, particularly in the field of business incubation, for the reason that, it offers practical investigation of the components that influence business incubation national programme in Nigeria. This study's findings permit having an insight for a better incubation management practices leading to likely generation of more start-ups by the incubators, hence more job creation as well as economic development.

1.3 Problem Statement

Business incubation programme is considered to be one answer to address most of the challenges and limitations encountered by the SMEs for the reason that it provides access to various array of on-site resources, support and advice (Hackett and Dilts, 2004b). Business incubators claim to support their incubatees through the provision of optimal environments aimed at increasing the survival and long term performance of the early stage businesses (Ratinho et al., 2013). Cheng and Schaeffer (2011); Vanderstraeten and Matthyssens (2010) reported that business incubation performance assessment sprang up in the 1980s for the reason that government at that time started considering them a vital instrument for business development as well as advancement of local economies.

The popularity of business incubation programme is on the increase now especially as most countries of the world have seen it as an economic development tool. However, regardless of the growing desirability, there is still confusion concerning the true state of incubator performance. That is, if incubators are really attaining their objectives as well as the exact influence it has on businesses residing in incubators. In the recent past, performance assessment and benchmarking of business incubators have developed as the next phase in scholarly works related to business incubation.

Furthermore, since the establishment of business incubation (BI) programme in most developing countries including Nigeria, the initiative has not been able to live up to expectations. The programme has not achieved efficient and effective operations due to the following problems faced: inconsistent and inadequate financial support; insufficient amenities and infrastructures; and a lack of value-added technologies.

A global review on best practices has revealed that Nigeria's Technology Incubation programme has not met expectations or achieved adequate success (Adelowo et al., 2012). Furthermore, they noted that in comparison with global best practices, there has been a wide gap in the procedures as well as management of the

programme. There has been a discrepancy related to the way the programme is managed and practiced vis-à-vis the global best practices. However, care should be taken when adapting to the international best practices as local situation of the country need to be adhered to primarily. Little or no research has been undertaken into the related performance of the incubation programme in Nigeria.

There is significant discussion in the literature about the critical success factors operating in business incubation programmes (Smilor, 1987; Lee and Osteryoung, 2004; Sun et al., 2007a; Kumar and Ravindran, 2012). However, there is scarcity of literature that discussed business incubation performance and government policy.

There is also a problem of business incubation adoption in Nigeria. Despite the fact that the initiative has thrived well in the developed countries whereas the success stories of the scheme in developing countries including Nigeria has fallen short of the initial conception objectives. This problem has negatively affected SMEs who are supposed to be the fulcrum on which the industrialization of the economy revolves. Because of the problem, the major player for job creation as well as economic development has been affected because of the wrong adaptation of the initiative.

A possible cause of this problem is due to the fact that the government of most developing countries (Pals, 2006) especially Nigeria just grabbed the imported mechanism (business incubation scheme) from the developed countries and started implementing it without knowing the nitty-gritty of the scheme. It did not really adapt to the local situation. There was lack of insight into the process of commercialization of R&D results, which was one of the rationales for adopting the programme. This is probably one of the reasons why it did not work very well.

Prior scholarly evaluation efforts were criticised for lack of rigorous theoretical and methodological basis (Phan et al., 2005; Allen and McCluskey, 1990; Mian, 1997; Vanderstraeten and Matthyssens, 2010). The criterion for performance assessments have been flawed. For instance, benchmarking incubators against one

another has shown to be questionable, for the reason that different incubators host varied types of businesses, have different motivations and are geographically spread globally.

Several factors have been proposed as antecedents of incubator performance (IP). One of the major predictors of IP is related to government Policy (GP). GP related factor has been an important consideration in understanding the factors that lead to successful incubator performance for the reason that government support and pronouncement in the form of policies are able to shape the performance outcome.

To date, some of the studies on GP as an antecedent to performance that have been studied in relation to entrepreneurship include Mohd Shariff et al. (2010); Harash et al. (2014); Friedman (2011); Ihugba et al. (2014); Mason and Brown (2011); Greene (2012); Shane (2009). Despite the aforementioned empirical studies on the role of GP in shaping incubator performance, literature indicate that very few studies have looked at the effects of GP on incubator performance. Even if there are studies on GP, the studies were limited to examining generic entrepreneurship such as (Greene, 2012; Shane, 2009).

Additionally, GP is considered in the present study because it plays a salient role in influencing the attainment of incubator performance for the reason that government is always in the lead when it comes to entrepreneurship development (Barber, 1989).

Furthermore, various researchers generally agreed that government policies are more effective towards achieving organisational performance than other factors (Dwyer et al., 2009; Dobers and Wolff, 2000; Gadenne et al., 2009). However, as mentioned earlier, only a limited empirical research has investigated the effects of government policy on incubator performance. Such neglect has been unfortunate because largely, GP, directly influence entrepreneurial government decisions on whether to engage in business incubation programme in particular and entrepreneurship in general. Hence, GP is crucial for the accomplishment of Incubator performance goals and objectives.

From theoretical perspectives, scholars have employed different theories to understand the underlying sources of incubator performance. To date, some of the theories that have been used to understand the underlying sources of incubator performance include transaction cost theory (Coase, 1937; Williamson, 1998), RBV (Penrose, 1959; Barney, 1991), Social Network theory (Bøllingtoft, 2012; Mitchell, 1969; Tichy et al., 1979), stakeholder theory (Donaldson and Preston, 1995), institutional theory (DiMaggio and Powell, 1983) among others. One possible reason for using different theories to understand the underlying sources of incubator performance is because of the complexity nature of entrepreneurship. As such, relying on one or few theoretical perspective to explain entrepreneurship is not sufficient enough.

In general, based on the aforementioned perspectives, extant empirical studies have been able to develop several models by taking into consideration different sets of individual, organisational, and situational factors to explain the underlying structures involved in incubator performance. Furthermore, while these theories are useful to understand the underlying sources of Incubator performance, there appears to be a paucity of studies applying RBV theory (Wernerfelt, 1984; Barney, 1991) to explain Incubator performance. Even if any, such studies report conflicting results (e.g. Friedman, 2011; Ihugba et al., 2014; Mason and Brown, 2011; Greene, 2012; Shane, 2009), suggesting possible operation of moderator that could weaken or strengthen the relationship. One explanation for why there is a paucity of studies applying RBV theory to understand the underlying sources of incubator performance is that most of the studies (Pergelova and Angulo-Ruiz, 2014; Abu-Bakar and Ahmad, 2010; Somsuk and Laosirihongthong, 2014) that applied RBV theory were mainly conducted among developed countries of Europe and North America and to less extent, Asia, such as Thailand.

A review of the literature indicates that CSF is purported to influence an incubator performance. Relevant literature also indicate that GP is a well-established factor that exerts a significant influence on incubator performance. Drawing on principle underlying GP (Blau, 1970; Burns and Stalker, 1961), GP was proposed as a moderator because it is yet to be investigated in CSF and incubator performance

relationship and such consideration could increase our theoretical understanding and provide empirical evidence on how GP buffers the effect of Incubator performance. In particular, the relation between CSF and Incubator performance would be stronger when GP is present. Again, the relation between incubator performance would be stronger when having a high GP than for low GP.

Despite many studies that have investigated various factors that influence IP, most of them were conducted mainly in Asia, United States of America (USA), Australia and Europe (Somsuk and Laosirihongthong, 2014; Abu-Bakar and Ahmad, 2010; Kumar and Ravindran, 2012; O'Neal, 2005; Pergelova and Angulo-Ruiz, 2014; Trewartha, 2012) paying less attention to the African continent, particularly in Nigeria. Hence, IP deserves further investigation in Nigeria because the findings of the previous studies may not be generalisable to the Nigerian context due to cultural and contextual differences.

Definitely, a study which investigates the impact of government policy on the relationship between critical success factors and incubation performance in Nigeria is presented by employing a mixed methods approach.

1.4 Aim and Objectives of the Study

To examine the role of government policy on the critical success factors of business incubation dimensions as well as its performance is the aim of this research. The research more specifically intends to achieve the following objectives:

- a) To examine the relationship between the critical success factors and incubator performance of technology business incubation programme in Nigeria.
- b) To explore how the relationship between the individual critical success factors impact on incubator performance

- c) To test the moderating role of government policy on the relationship between the individual critical success factors and incubator performance.

1.5 Research Questions

In order to accomplish the above stated objectives, key research questions were identified. This includes the following:

- a) To what extent do the (various individual) CSFs impact on TBI performance in Nigeria?
- b) How do the (various individual) CSFs impact on the performance in Nigeria?
- c) Does government policy moderate the relationship between the (various individual) critical success factors and incubator performance in Nigeria?

1.6 Significance of the Study

Business incubation model is extensively being employed as a tool for supporting entrepreneurship as well as assisting start-ups. Incubator programmes nurture young businesses, helping them to carry on and established through the early stages when they are mostly vulnerable (Stefanović et al., 2008). Shepard (2013), postulates that the notion of bringing up an innovative and young as well as inexperienced firm until it can stand on its own is similar to how hospital incubators similarly care for immature and new babies.

As present awareness about this is low, the main aim of this scholarly inquiry is to try and better understand the issues and challenges associated with the concept of technology business incubation initiative in Nigeria.

The study also aims to be useful for the main stakeholders in the business incubation sub-sector of the Nigerian economy - especially including incubator programme managers and business participant as well as the policy-makers. The research currently being the very first of its sort to be able to empirically examine these factors within the context of Nigeria business incubation programme will assist business incubator practitioners in making future decisions concerning the business incubator industry. Furthermore, the outcomes of the study will help in understanding the impact of these factors on the effectiveness of business incubators. Incubator can equally make use of the study as an instrument to look at their present strategies and accordingly invest resources in developing the success factors.

The significance of the study also relates to the context or environment in which the incubators programmes studied is based. Apart from an earlier comprehensive study conducted by Adegbite (2001), no known comprehensive research on business incubation especially as it relates to success factors has been conducted in Nigeria. Several studies on incubation success factors exist elsewhere especially in the industrialized countries of North America as well as other European countries. This scholarly work seeks to build on these works in examining the link between critical success factors and incubator performance.

Furthermore, the findings of this study would provide theoretical and practical implications as discussed below:

The findings derived from the survey indicate how it is important for policy makers to better consider the most influential variables in order to design and implement the incubation programme in a more effective and efficient manner. This especially in light of how implementation is constrained by a limited budget. Another policy-related significance of the study is its applicability to other African countries that have similar condition and culture as Nigeria. In contrast to Western

culture, the African young are a growing population leading to higher demand for jobs. So any research that can enhance the programme can also help raise the wealth of the nation or the economy of the country since SMEs are the backbone of the economy.

Finally and in conclusion, this scholarly work is significant for the reason that in contemplation of ascertaining the performance of business incubation practices of various countries, prior studies related to business incubation performance have studied the linkage that exist between the antecedents of critical success factors and incubator performance. Conversely, this study varies from earlier studies for two reasons. Firstly, this research added an additional variable in like manner as government policy which hitherto were not explored in the earlier studies (Kumar and Ravindran, 2012; Smilor, 1987; Mbewana, 2007). The second rationale relates to the country context in which the respondents are based. Most of the studies in business incubator success factors are mostly developed countries based. This study examined a developing country, namely, Nigeria where culture, economic and environmental forces play a very big role.

1.7 Scope of the Study

This scholarly work centres on examining the essential elements that are critical to the performance of technology business incubation programme in Nigeria. The justification for concentrating on Nigeria as the context of this study is as follows. Firstly, literature indicate that business incubation programme in Nigeria is not yet as developed as it is in other countries of Europe and Asia and as a result there is limited studies on business incubation programme generally and incubator performance in particular. For example, research suggests that with regards to international best practices, it has been indicated that TBI programme in Nigeria is yet to live up to its objective (Adelowo et al., 2012). With regard to data surveying process, 153 questionnaires were administered to the tenant firms of the Nigerian technology business incubation (see section 3.13.2 of chapter 3 for details). Since the emphasis of this scholarly work was to examine the antecedents of critical success

factors on incubator performance among the tenant firms (questionnaire administration) and (interviews to incubator managers as well as tenant firms) in Nigeria's technology business incubators, organisational level were the unit of analysis in the current study.

The following section provides definition of key terms and followed by an outline of the thesis.

1.8 Definition of Key Terms

(a) Business Incubation

It is a company assistance procedure that speeds up the flourishing growth of newly formed as well as fledgling businesses by offering entrepreneurs a range of intended capital and facilities (NBIA, 2009).

(b) Business Incubator

Business incubator is a business enterprise initiative whose underlying principle is the enhancement of other newly-formed firms (Rice and Matthews, 1995).

(c) NBIA

National Business Incubation Association is a global establishment whose function is to develop business incubation as well as private enterprises. The NBIA offers experts with knowledge, instruction, sponsorship as well as grouping assets to offer quality to the practice of supporting newly formed firms (NBIA, 2009).

(d) Tenants/Clients/Incubatees

Companies who are occupants of a business incubator facility and enjoying the services provided by the incubator are referred to as tenants/incubatees/clients. Client could also refer to any company that uses the incubator facility as tenant, affiliate or graduate (O'Neal, 2005).

(e) Graduate

This is a tenant firm who has exited from the incubator by virtue of having achieved a set of standard or objectives (Wagner, 2006).

(f) Technology Incubator

It is an Incubator that encourages the development of innovative know-how in business enterprise helping to bridge the spread in development practice. Generally, if the client base involves technology firms up to fifty percent overall, then incubator is considered a technology incubator (O'Neal, 2005).

(g) Venture Capital

It is a source of financial assistance for newly formed businesses that are on the threshold of introducing product/service and require an infusion of capital to increase to full production (O'Neal, 2005).

(h) Value-Added

This concept refers to those specific ways that an incubator initiative improves the expertise of its tenants to survive and grow in business (Allen and Bezan, 1990).

(i) Incubator Manager

This is the decision-making officer who organizes the affairs of an incubator programme. He nurtures and organizes business assistance programmes and generally gives one-on-one counseling and referral services to incubator tenants. Other duties include marketing the incubator programme, fund raising, client selection, collection of rental fee and service charges and managing other incubator management personnel.

(j) Mixed-Use Incubator

It is an Incubator whose focus is not on a particular kind of company and maintains client from a mixture of various businesses.

(k) University Incubator

It is an incubator usually set up by a University or other institution of higher learning. Its orientation is usually towards innovative, research-based companies.

(l) Incubator Performance

Incubator performance is the extent to which incubator outcomes correspond to incubator goals (Bergek and Norrman, 2008).

(l) Government Policy

Government policy is defined as any course of action which aims at regulating a specific condition

1.9 Thesis Organization

The arrangement for this study will be organized around the standard five-chapter layout. The remainder of this thesis is organised as follows. Next, in chapter two, we shall review the key concepts in technology business incubator. In particular, the concepts of incubator performance, business support, infrastructure, financial resources and government policy are explored. Then, we shall review the prior studies that relate to the concepts toward the development of a model that describes the relationships. To relate these relationships, resource based view (Penrose, 1959; Barney, 1991; Wernerfelt, 1984) and contingency theory, (Blau, 1970; Chandler, 1962; Burns and Stalker, 1961) are used as the underpinning. Thus, an explanation of these theories is provided. Chapter three describes the proposed methods and techniques including the research paradigms, hypotheses development, research design, data collection procedures, sampling technique and techniques of data analysis, among others. Furthermore, chapter 4 describes the analyses of data and findings of the study. In chapter five, the key findings of the study are summarised based on the research objectives. In addition, in chapter five, the theoretical, methodological and practical implications of the findings are emphasised. Also in chapter five, recommendations and suggestions for future research are provided and finally a conclusion is drawn.

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