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The Nigerian Business Incubation Programme: The Moderating Role of Government Policy

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ABSTRACT

An instrument which practitioners have acknowledged as an essential mechanism used in supporting greenhorn companies is the business incubation system. Several countries of the world have implemented the business incubation concept ever since it was conceived and developed in the United States in 1959. It is a model that has typically given itself much more readily within industrialized countries with identical environments to the United States. Nigeria also adapted it in 1993 where the resulting process and practice failed to live up to anticipations. To determine the significant role of government policy on the incubation dimensions and its success is the purpose of this research. Data collection process involved the surveying of stakeholders in Nigeria with some direct involvement in the national programme. The Partial Least Squares (PLS) was employed for the analysis. The findings showed that all exogenous variables collectively explained 52.4% of the variance in success. Meanwhile, when a moderation effect is present; the variable increased to 62.3%. Consequently, it is recommended that for a business incubation scheme to be successful and effective, government needs to implement efficient policies since results showed that these policies influenced all the relationships. The results' implications as well as limitations of the study are discussed.

Keywords: Government Policy, Incubator Success, Moderator, Incubator Antecedents, Developing Countries

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1. INTRODUCTION

Governments are constantly paying attention on attaining development at provincial, federal as well as global levels (Lagos and Kutsikos, 2011). Scholarly work and empirical study show that innovation is a strategic policy for achieving this aim. They argued that an effective means of encouraging and managing innovation is somehow clumsy; therefore, in order to tackle the problem associated with changing innovative ideas into both local and national economic prosperity, both provincial and central governments are implementing best-practice vehicles of innovation administration.

Business incubator "is a central organization that accelerates and systematizes the process of creating successful enterprises by providing them with a comprehensive and integrated range of support competences, including incubator space, business support services, clustering, networking opportunities and links" (National Business Incubation Association [NBIA], 2010). Consistent with this business incubator is a facility-based infrastructure where tenant firms are offered varieties of support services. Business incubation on the other hand, business incubation is the 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.

Incubation initiatives have been used by govern-

ments to meet a series of goals in order to bring change (InfoDev, 2010). This change could be in the form of employment through job creation by the incubator helping SMEs to stand on their own. There is proven evidence that opines that goals accomplishment may probably occur if business incubation is a constituent of a broader policy change. For instance, assisting the creation of innovative firms or helping surviving firms to be revitalized. This will help to put the locality into the conventional innovative business prospect (InfoDev, 2010). This occurs in most localities, especially where there is cultural issue of self-employment.

The objective of this paper is to highlight the salient role that government plays in achieving economic development as well as success of the business incubation initiative. The paper will focus on four dimensions, such as main factors, incubator performance factors, incubator success/outcome and government policy. This paper is structured as follows: Section 2 provides a review of literature on business incubation process. Section 3 highlights the methodology used in the design, while in Section 4 brief discussion of our findings is presented drawn from the quantitative method. A conclusion is presented on Section 5 with implications of incubators in developing countries.

2. LITERATURE REVIEW

The success factors have been comprehensively researched (Hackett and Dilts, 2004; Kumar and Ravindran, 2012; Lumpkin and Ireland, 1988; Mbewana, 2006; Peters *et al*., 2004; Verma, 2004). Majority of their research are largely focused on the traditional success factors (for example, entry and exit criteria, business support, infrastructure, incubator governance, workspace among others). Prior researchers as well as contemporary writers have been in agreement with the traditional success factors (e.g., Mbewana, 2006). There is no particular method for making a business incubator successful however various factors, such as selection of experienced and vibrant managers, access to business services and business assistance, management consulting services availability, flexibility in space, graduation and rental policies, and networking are the important elements to incubator success (Markley and McNamara, 1994).

In this study, a paradigm shift towards the role of government will be advocated in place of the traditional success factors. As government is the lead entity in the sponsorship of business incubation especially in the developing countries, there is need to give government role its due recognition. InfoDev (2010), emphasized that public sector finance is crucial especially in the early phases; this government funding helps the incubators to become functional. The government roles are in form of policies and support. Little or no research has been conducted in the past regarding government policy as it relates to the study of business incubation critical success factors. This study therefore will look at the influence or if there is a relationship between the traditional incubation success factors or main factors in this case and government policy to achieving an incubation success.

The incubation programme has been globally accepted to have started from the United States, and then spread to other European countries. In the early 1990s the programme made in-roads to the developing countries including Nigeria. Sustainability and success of the programme depend on how well the beneficiary developing country apply and adapt it to suit the purpose for which the economic development tool was imported to the country in question.

Business incubation is a business assistance procedure that speeds up growth attainment of early stage and nascent enterprises by offering businesspersons with a series of directed resources and amenities (NBIA, http://www.nbia.org). These services are normally provided or coordinated by management of the incubator. The division of the incubator facility into units, the coaching and mentoring are some of the ways management provides the basic services to the tenant firms. Molnar *et al.* (1997), declared that the attainment of an incubated enterprise depends on the degree to which the staff of the incubator comprehend and provide for the clients' necessities particularly in the business-development process dealing. There is a co-production interdependent relationship between business incubator management and the support programme for its tenants (Rice, 2002). The rationale for establishing business incubation is to create companies that will be successful as well as to vacate from the incubator facility commercially sustainable as well as self-supporting (Bergek and Norrman, 2008; NBIA, 2010).

Anderson and Hanadi (2012), highlight that the United States and globally, business incubation has demonstrated to be an importantly effective component in economic development as well as employment generation, innovation, transfer of technology and diversification of the local economy. In 2011, the US Department of Commerce, Economic Development Administration declared that 7,000 business incubators are in existence (Lewis *et al*., 2011). NBIA (2010) posits that the United States has the prevalent quantity of business incubator initiative globally.

A lot of studies (Bollingtoft, 2012; Hackett and Dilts, 2004; Kumar and Ravindran, 2012; Lee and Osteryoung, 2004; Lumpkin and Ireland, 1988; Mbewana, 2006; Peters *et al*., 2004; Verma, 2004) have been conducted in the area of success factors for incubation programmes using the traditional factors to assess the critical success factors (for example, entry and exit benchmarks, incubator governance, management team selection criteria, infrastructure, networking and mentoring, incubator monitoring and evaluation). Little or no comprehensive study has been conducted on government role towards the success of incubation initiative. The role of government in entrepreneurship can be viewed through government supportive role, government policy im-

plementation towards entrepreneurship on one hand and the business incubation scheme on the other hand. Allen and McCluskey (1990), had argued that incubator policy is neither an immediate solution nor a lone remedy for all entrepreneurship challenges (Autio and Klofsten, 1998). Allen and McCluskey (1990) argument as explained by Akcomak (2009) stem from the fact that only the presence of incubators cannot give assurance to individuals of becoming businesspersons and also encourage networking amongst companies. It is paramount to put in place an equilibrium between incubator policy and entrepreneurship policies (Akcomak, 2009).

One aspect where the government plays an important role is the issue of financial support and commitment. As most of the incubators in the developing countries are basically government sponsored, therefore there are difficulties in developing a self-sustainable financial model, a case in point is Malaysia (InfoDev, 2010). Other developing countries in the same pedestal with Malaysia are Nigeria (Adegbite, 2001); Turkey (Akcomak, 2009); China (Akcomak, 2009).

Akcomak (2009), argued that, as incubators expect entrepreneurs to be more competitive and self-sustaining, the incubator should also be made to be self-sustaining through government. This can be achieved by government setting a clear milestone to the incubator management to toe the line of success. However, if this must be expected to happen, government needs to put in place supportive and entrepreneurial-oriented policies. This can be achieved through employing business incubation best practice especially in the area of management team selection and sitting business incubators at specific locations purely on merit rather than on political considerations.

Policy charts a course and provides a blue-print for the implementation of a government programme. It guides the thinking of government in the implementation of a programme and defines its direction. The Technology Business Incubation (TBI) is such a programme that draws its DNA from a government policy direction. In regards to the case of Nigeria TBI programme, there seems to be some level of confusion in terms of government role related to policy. As simple as it may sound, this may probably be the main bane affecting the implementation of the programme. Since a clear understanding of the root cause and essence of the initiative will determine the policy direction and modus operandi of its operation; a poor understanding of its root and essence will continuously cause a mismatch and confusion with its attendant implication on implementation.

Government policy implementation is also an important factor for a successful business incubation programme. An enabling policy is one 'Big' thing and the implementation of this enabling policy is one other 'Bigger' thing. To a reasonable extent there is no shortage of supporting policies in every facet of endeavors in Nigeria and TBI programme is no exception.

One-by-one path analysis hypothesis testing approach

H1.a: Incubator Performance Factors have a positive effect on Outcome.
H1.b: Incubator Performance Factors have a positive effect on Success Factors.
H2: Incubator Performance Factors have a positive effect on Main Factors.
H3.a: Main Factors have a positive effect on Outcome.
H3.b: Main Factors have a positive effect on Success Factors.
H4: Success Factors have a positive effect on Outcome.
H5: Government Policy moderates the relationship between Main Factors and Success Factors.

3. METHODOLOGY AND SAMPLE

A cross-sectional research design was adopted to assess the entrepreneur's insight of the business incubation programme in Nigeria. The population of the study consists of tenant firms within the TBI Centers in Nigeria. The sample of the survey was equally drawn from a list of technology business incubators obtained from the supervisory agency of TBI in Nigeria, the National Board for Technology Incubation (NBTI). Before the construction of the questionnaire a preliminary information gathering was conducted.

This study employed the purposive or judgment sampling technique. The usage of this non-probabilistic sampling approach is based on the fact that we choose study participants based on the purpose of their involvement in the study (Guest *et al*., 2012; p.48). Leedy and Ormrod (2013), also stated that purposive sampling possibly will be very suitable for certain research problems. Operationally, the tenants were selected for the data gathering in this study because of their direct involvement in the incubation programme in Nigeria in particular and global in general.

The population for this study was drawn from the 23 incubators that are operational in Nigeria. Due to the small population size of tenant firms receiving incubation services in Nigeria, all the tenant companies operating within the 23 incubators were investigated. A total number of 253 tenants companies incubator tenants participated in the survey. Out of this number, 113 usable questionnaires were returned. This translates to 44.7% which was considered adequate as Sekaran (2003) recommends 30% response rate as satisfactory.

3.1 Development of the Questionnaire

In order to develop the questionnaire to be a tool to collect primary data, this research conducted preliminary information gathering by using semi-structured interviews together with information from a literature survey before going into the stage of questionnaire design for the main survey. It was expected that preliminary information gathering (interviews) could help in design-

ing a questionnaire and perhaps help to develop the theoretical framework. These interviews were conducted within the six geopolitical zones of Nigeria where technology incubation centers are sited. The interviewer had a list of predetermined open-ended questions and could also ask other relevant questions. The questions were aimed at investigating the challenges and issues faced by incubator stakeholders and the associated resources needed to assist the tenants.

After the interviews, the information provided details of the opinions of incubator managers as well as the tenants associated with the issues under investigation, and provided more information about specific variables of interest with additional insights of possible determinants that seemed to be important in this study. After this stage, the researcher could further focus on the factors and associated information through further questionnaire surveys. A mass of information was collected through the interviews and literature survey and this important information helped to develop the theoretical framework and questionnaire. However, because the objective of the semi-structured interviews conducted in this research was to provide information necessary for the design of a formal questionnaire, detailed analysis was less important (Ticehurst and Veal, 2000).

3.2 Operational Definition for Criteria Used in the Study

Figure 1 depicts the research model and its related variables used in the study. From the Main factors, Criteria Used To Screen Tenants (CUST) measures the importance attached to the dimensions, such as companies must have innovative project, profit potential of the firm. Graduation Criteria (GC) measures such dimensions, such as firms leave when objectives are achieved, firms shall leave when they are unable to pay incubation charges. Nature and Scope of Facilities (NSF) includes the importance to dimensions, such as physical office space to tenants, shared laboratory facilities, shared work-shop facilities, provision of equipment to tenants. Mentoring and Networking Support for Tenants (MNST) includes the importance attached to participating in network events, affiliation of the incubator with entrepreneurship in the region network, affiliation of the incubator with entrepreneurship institutions, tie to a university and the provision of business professional referrals by the incubator. Incubator Governance (IG) measures the importance of an experienced incubator manager, a key board of directors, a willing advisory board, clear incubation policies and programmes and finally proactive management team. Nature of Financial Support Services Provided by Incubator (NFSSPI) measures the importance of seed capital availability, the ability of incubator to provide government grants and loans to its clients, incubator linkage to financial agencies, venture capitalists, angel investors, the importance of investing the seed capital through debt financing. Business Support (BS) includes the importance of coaching, monitoring, introduction to venture capitalists and patent assistance. Criteria for Management Team Selection (CMTS) measure the importance of education and coaching. Incubator Performance Monitoring (IPM) measures the incubator occupancy rates, turnover of tenants/graduate companies, number of companies graduating from incubator. Incubator Performance Factors (IPF) measure the importance of feasibility study and local adaptation of the incubator model. Government Policy (GP) measures the importance of policy implementation, government commitments and funding, supportive government policies. OUTCOME includes creation of new and high quality businesses, employment creation contribution. Important Factors for Successful Incubation (IFSIN) measure the importance attached to power supply stability, access roads to market and raw material as well as synergy between incubator stakeholders. Finally respondents were expected to measure importance to statements that utilize a five-point Likert scale. A five-point depicts '*Extremely important*' while a one-point represents '*Not at all important*.'

4. RESULT

When empirical data is involved to estimate Structural Equation Modelling, scholars usually utilize covariance-based techniques (Joreskog, 1978, 1982; Joreskog and Goldberger, 1975), as well as the Partial Least Squares Structural Equation Modelling (PLS-SEM) technique which is variance-based (Hair *et al*., 2013a; Hui and Wold, 1982; Lohmoller, 1989; Wold, 1974). Adopting the crucial debates with regards to choosing a suitable technique to calculate structural equation models (Hair *et al*., 2011, 2012c; Ringle *et al*., 2012), this study resolved to make use of the PLS-SEM method, that has also been recognized as a predominantly advantageous as well as regularly used multivariate evaluation technique within management research (Hair *et al*., 2012a, 2012b, 2013b). The aim of this particular research should be to focus on the main elements 'success factor' and 'outcome'. Hence the prediction-oriented PLS-SEM technique is especially appropriate (Henseler *et al*., 2009, 2012). In addition, the PLS-SEM is dependent on a number of ordinary least squares regressions. This is particularly not very sensitive to sample sizes that are moderate, that is specifically useful within model set-ups that are medium and complex which this research is a case in point. This argument was validated by Reinartz *et al.* (2009) within their research using simulation. The study showed that PLS-SEM possesses greater degrees of statistical ability compared to its counterpart; the covariance-based particularly with regards to small sample sizes (see also Lu *et al*., 2011). Therefore, the application of PLS-SEM appears to be justified in our model setup.

4.1 Model Estimation

SmartPLS M3 version 2.0 (Ringle *et al*., 2005) has

been utilized in calculating the path model as well as estimation of the parameter. It was implemented based on the path weighting scheme (Henseler *et al*., 2009, 2012). PLS approach is a second generation multivariate technique which can simultaneously evaluate the measurement model (the relationships between constructs and their corresponding indicators), and the structural model with the aim of minimizing the error variance (Chin, 1998; Gil-Gracia, 2008). In assessing and describing the outcomes, this study adopted current recommendations regarding the PLS-SEM, e.g., as provided by Chin (2010) and hair *et al*. (2013a) and also examined the measurement models prior to assessing the structural model. Also following the suggestions of (Chin, 1998; Gil-Gracia, 2008), the bootstrapping method (1,000 resamples) has been used to determine the significance levels for loadings, weights, and path coefficients.

4.2 Measurement Model

In the first place, reflective measurement models require being evaluated with regards to their reliability (that is, the indicator reliability and internal consistency reliability construct measures) in addition to validity (that is, convergent validity and discriminant validity). The composite reliability values also ranged from 0.727 to 0.914. Interpreted like a Cronbach's alpha for internal consistency reliability estimate, a composite reliability of 0.70 or greater is considered acceptable (Fornell and Larcker, 1981b). Similarly, the values of all AVE tend to be above the critical threshold value of 0.50, which is giving support to the convergent validity of the measures (Hair *et al*., 2013a). Eventually, two methods were employed in evaluating the discriminant validity of the constructs. Firstly, the indicators' cross loadings, which usually show that absolutely no loaded indicator is higher upon virtually any other construct, were examined. Secondly, the Fornell and Larcker (1981a) criterion, that calls for every construct's AVE needs to be above its correlation with all the different constructs were also examined. The two evaluations evidently show that majority of constructs demonstrate discriminant validity (Table 1).

As such we can conclude that the measurements are reliable. Due to the self-reported nature of the data, there was a potential for common method variance, so the Harman one-factor test was conducted to determine the extent of this. According to Podsakoff *et al.* (1986), common method bias is problematic if a single latent factor would account for the majority of the explained variance. The un-rotated factor analysis showed that the first factor accounted for less than 50% of the total variance, hence, the common method bias was not a serious threat to validity in this study. From Figure 2 it can be seen that all variables have been conceptualized as first order or so also known as lower-order components.

From Table 2, it can be observed that the results of the measurement model exceeded the recommended values thus indicating sufficient convergence validity. After confirming the convergent validity, an assessment of the discriminant validity should proceed using the Fornell and Larcker (1981b) method. Discriminant validity is the degree to which items are differentiated among constructs or a measure of distinct concepts. The criterion used to assess this is by comparing the AVE with

Table 1. Latent variable correlations–discriminant validity

	BS	CMTS	CUST	GP	GC	IPF	IG	IPMC	MNST	NFSSPI	NSF	Outcome	Success Factor
BS	**0.726**												
CMTS	0.440	**0.781**											
CUST	0.272	0.368	**0.800**										
GP	0.318	0.307	0.452	**0.838**									
GC	-0.197	-0.320	-0.081	-0.135	**0.758**								
IPF	0.404	0.442	0.259	0.401	-0.119	**0.756**							
IG	0.436	0.596	0.397	0.407	-0.361	0.324	**0.714**						
IPMC	0.432	0.457	0.393	0.211	-0.138	0.274	0.333	**0.721**					
MNST	0.365	0.334	0.519	0.458	-0.057	0.125	0.456	0.332	**0.715**				
NFSSPI	0.609	0.419	0.192	0.318	-0.111	0.339	0.460	0.310	0.386	**0.799**			
NSF	0.454	0.410	0.248	0.274	-0.241	0.325	0.363	0.417	0.313	0.503	**0.768**		
Outcome	0.100	0.015	0.233	0.113	0.177	0.208	0.001	0.183	0.059	0.071	-0.037	**0.771**	
Success Factor	0.356	0.347	0.390	0.633	-0.231	0.232	0.484	0.189	0.473	0.253	0.151	0.088	**0.770**

Diagonals represent the square root of the AVE while the off-diagonals represent the correlations.
BS: Business Support, CMTS: Criteria Used To Screen Tenants, GP: Government Policy, GC: Graduation Criteria, IPF: Incubator Performance Factors, IG: Incubator Governance, IPMC: Incubator Performance Monitoring Criteria, MNST: Mentoring and Networking Support for Tenants, NFSSPI: Nature of Financial Support Services Provided by Incubator, NSF: Nature and Scope of Facilities.

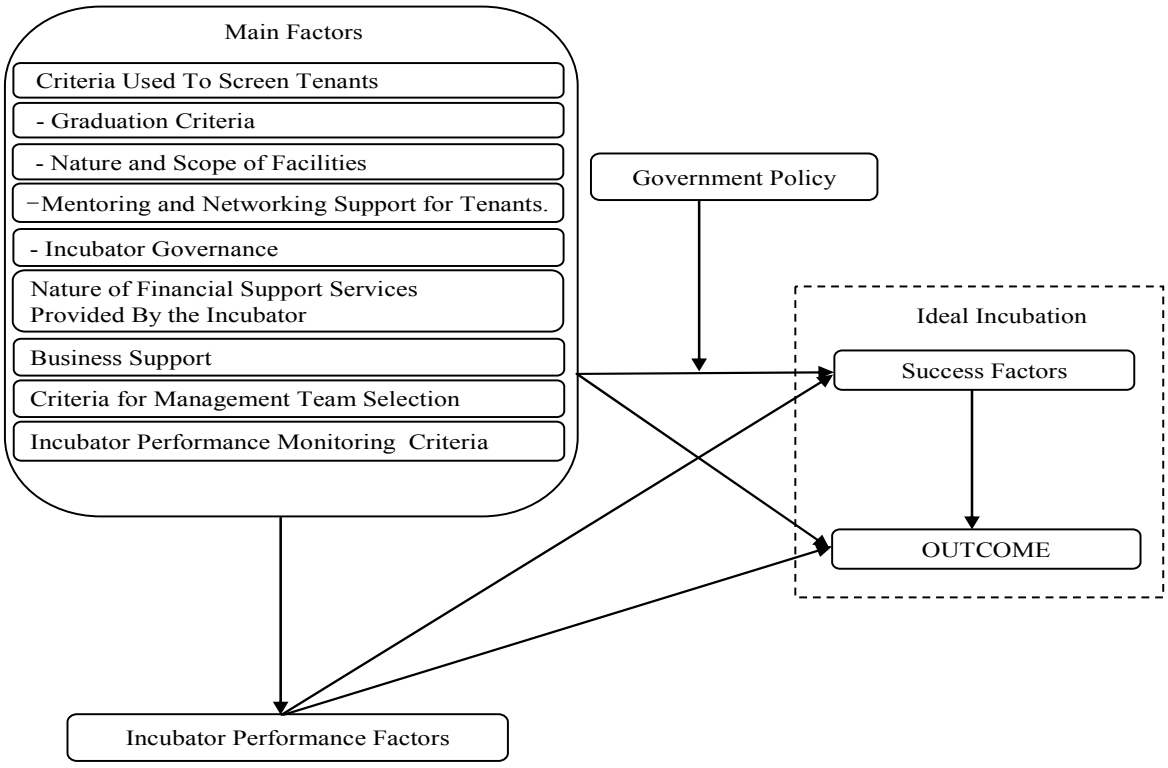

Figure 1. Research model.

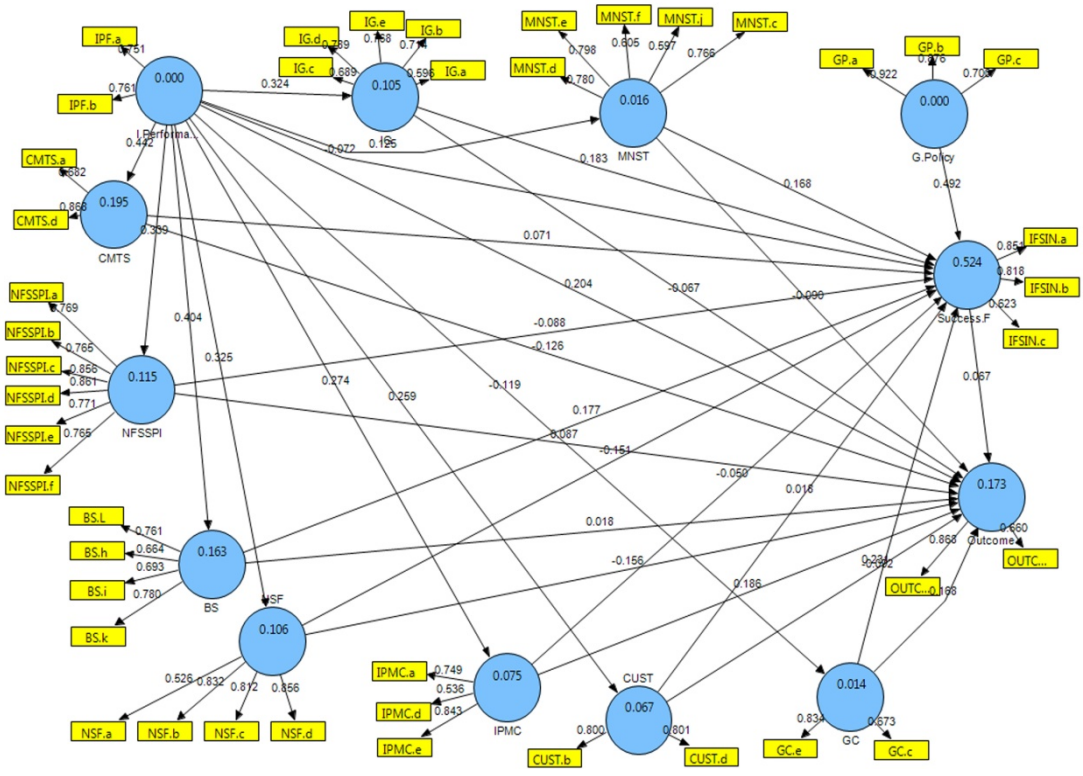

Figure 2. Result of model testing. BS: Business Support, CMTS: Criteria Used To Screen Tenants, GP: Government Policy, GC: Graduation Criteria, IPF: Incubator Performance Factors, IG: Incubator Governance, IPMC: Incubator Performance Monitoring Criteria, MNST: Mentoring and Networking Support for Tenants, NFSSPI: Nature of Financial Support Services Provided by Incubator, NSF: Nature and Scope of Facilities.

Table 2. Measurement model

Model construct	Item	Loading	*t*	CR[a]	AVE[b]
Main Factor					
Criteria Used To Screen Tenants (CUST)	CUST.b	0.800	6.498	0.781	0.641
	CUST.d	0.801	7.152		
Graduation Criteria (GC)	GC.c	0.673	2.084	0.727	0.574
	GC.e	0.834	2.223		
Nature and Scope of Facilities (NSF)	NSF.a	0.526	2.606	0.848	0.591
	NSF.b	0.832	5.293		
	NSF.c	0.812	5.132		
	NSF.d	0.856	4.090		
Mentoring and Networking Support for Tenants (MNST)	MNST.c	0.766	5.682	0.837	0.511
	MNST.d	0.780	7.757		
	MNST.e	0.798	6.399		
	MNST.f	0.605	3.185		
	MNST.j	0.597	4.425		
Incubator Governance (IG)	IG.a	0.596	6.631	0.838	0.510
	IG.b	0.714	11.639		
	IG.c	0.689	9.411		
	IG.d	0.789	18.027		
	IG.e	0.768	11.220		
Nature of Financial Support Services Provided by the Incubator (NFSSPI)	NFSSPI.a	0.769	10.591	0.914	0.639
	NFSSPI.b	0.765	11.164		
	NFSSPI.c	0.856	18.921		
	NFSSPI.d	0.861	16.856		
	NFSSPI.e	0.771	10.222		
	NFSSPI.f	0.765	12.431		
Business Support (BS)	BS.L	0.761	8.914	0.816	0.527
	BS.h	0.664	5.285		
	BS.i	0.693	5.128		
	BS.k	0.780	10.113		
Criteria for Management Team Selection (CMTS)	CMTS.a	0.682	4.686	0.755	0.609
	CMTS.d	0.868	13.006		
Incubator Performance Monitoring Criteria (IPMC)	IPMC.a	0.749	3.536	0.759	0.520
	IPMC.d	0.536	2.249		
	IPMC.e	0.843	3.854		
Incubator Performance Factor (IPF)	IPF.a	0.751	5.185	0.728	0.572
	IPF.b	0.761	5.767		
Government Policy (GP)	GP.a	0.922	18.603	0.875	0.703
	GP.b	0.876	9.267		
	GP.c	0.700	7.390		
Ideal Incubation					
Outcome	OUTCOME.a	0.660	1.877	0.742	0.594
	OUTCOME.c	0.868	3.328		
Important factors for successful incubation (Success Factor)	IFSIN.a	0.851	8.307	0.812	0.594
	IFSIN.b	0.818	10.020		
	IFSIN.c	0.623	5.777		

CR: composite reliability, AVE: average variance extracted.

the squared correlations or the square root of the AVE with correlations. As shown in Table 1, the second method has been used which is to compare the square root of the AVE with the correlations. The criteria is that if the square root of the AVE, shown in the diagonals is greater than the values in the row and columns on that particular construct then it could be concluded that the measures are discriminant. From Table 1, it can be seen that the values in the diagonals are greater than the values in their respective row and column thus indicating the measures used in this study are distinct.

4.3 Structural Model

To evaluate the structural models' predictive power, the R^2 of endogenous variables before and after including moderator variable has been calculated. R^2 indicates the amount of variance explained by the exogenous variables (Barclay *et al*., 1995). All exogenous variables together explained 52.4% of the variance in Success Factors while including the moderation effect it increased to 62.3%. Using a bootstrapping technique with a resampling of 1,000, the path estimates and *t*-statistics were

Table 3. Path coefficients, hypothesis testing

Hypothesis	Relationship	β	SE	*t*	Decision
H1.a	IPF → Outcome	0.197	0.152	1.293	Supported*
H1.b	IPF → Success Factors	-0.060	0.120	0.503	Not supported
H2.1	IPF → GC	-0.112	0.172	0.654	Not supported
H2.2	IPF → MNST	0.126	0.146	0.863	Not supported
H2.3	IPF → BS	0.397	0.100	3.982	Supported**
H2.4	IPF → CMTS	0.442	0.081	5.468	Supported**
H2.5	IPF → CUST	0.259	0.117	2.220	Supported**
H2.6	IPF → NFSSPI	0.338	0.095	3.546	Supported**
H2.7	IPF → NSF	0.323	0.155	2.079	Supported**
H2.8	IPF → IG	0.323	0.095	3.411	Supported**
H2.9	IPF → IPMC	0.271	0.116	2.336	Supported**
H3.a.1	GC → Outcome	0.158	0.148	1.070	Not supported
H3.a.2	MNST → Outcome	-0.099	0.159	0.622	Not supported
H3.a.3	BS → Outcome	0.023	0.154	0.148	Not supported
H3.a.4	CMTS → Outcome	-0.124	0.128	0.968	Not supported
H3.a.5	CUST → Outcome	0.237	0.158	1.505	Supported*
H3.a.6	NFSSPI → Outcome	0.089	0.134	0.667	Not supported
H3.a.7	NSF → Outcome	-0.155	0.144	1.074	Not supported
H3.a.8	IG → Outcome	-0.089	0.184	0.482	Not supported
H3.a.9	IPMC → Outcome	0.184	0.142	1.296	Supported*
H3.b.1	GC → Success Factors	-0.098	0.130	0.759	Not supported
H3.b.2	MNST → Success Factors	0.174	0.101	1.712	Supported*
H3.b.3	BS → Success Factors	0.212	0.139	1.520	Supported*
H3.b.4	CMTS → Success Factors	0.072	0.108	0.666	Not supported
H3.b.5	CUST → Success Factors	0.017	0.100	0.167	Not supported
H3.b.6	NFSSPI → Success Factors	-0.075	0.110	0.683	Not supported
H3.b.7	NSF → Success Factors	-0.168	0.112	1.500	Supported*
H3.b.8	IG → Success Factors	0.183	0.156	1.174	Not supported
H3.b.9	IPMC → Success Factors	-0.040	0.109	0.370	Not supported
H4	Success Factors → Outcome	0.067	0.214	0.314	Not supported

For 1 tailed test: * $p < 0.1$ ($t > 1.28$), ** $p < 0.05$ ($t > 1.645$), and *** $p < 0.01$ ($t > 2.33$).

BS: Business Support, CMTS: Criteria Used To Screen Tenants, GP: Government Policy, GC: Graduation Criteria, IPF: Incubator Performance Factors, IG: Incubator Governance, IPMC: Incubator Performance Monitoring Criteria, MNST: Mentoring and Networking Support for Tenants, NFSSPI: Nature of Financial Support Services Provided by Incubator, NSF: Nature and Scope of Facilities.

calculated for the hypothesized relationships.

As Hair *et al.* (2013a) suggested, these values will be considered for either a one-tail or two-tailed test; for 2-tailed test: * $p < 0.1$ ($t > 1.645$), ** $p < 0.05$ ($t > 1.96$), and *** $p < 0.01$ ($t > 2.58$); for 1 tailed test: * $p < 0.1$ ($t > 1.28$), ** $p < 0.05$ ($t > 1.645$), and *** $p < 0.01$ ($t > 2.33$). The hypotheses of this study have been formulated in such a way that we are interested only in the positive effect of predictors on endogenous variables; therefore a one-tailed test would be appropriate. The result of significant paths is presented in Table 3.

In overall, hypotheses H1, H1a, H2, H3, H3a, H3b, and H5 are accepted whereas hypotheses H4 is totally rejected. However, it should be noted that there were several sub-hypotheses that were tested for hypotheses H2, H3, and H5 which out of them some were accepted while others were rejected. In one hand, constructs of IPF, MNST, IG, CUST, BS, and NSF are doing a good job in proving explanation for the variations in Success factor. On the other hand, CMTS, GC, and NFSSPI were not predicting any of success or outcome.

4.4 Moderation Analysis–Testing for Fifth Hypothesis

H5: Government Policy (GP) moderates the relationship between main factors and success factors.

To test the possibility of such effect, each of main factors' dimensions (predictor) and government policies (moderator) were multiplied to create an interaction construct (main factors×government policies) to predict success factors (Chin, 2010; Henseler and Fassott, 2010). In this case, main factors is a hierarchical construct, which comprises 9 different dimensions, namely MNST, CMTS, IG, CUST, IPMC, GC, BS, NFSSPI, and NFS while government policy is a simple latent construct, which comprises 3 items; thus, the interaction construct represents 15 items (5×3), 6 items (2×3), 15 items (5×3), 6 items (2×3), 9 items (3×3), 6 items (2×3), 12 items (4×3), 18 items (6×3), and 12 items (4×3) for MNST, CMTS, IG, CUST, IPMC, GC, BS, NFSSPI, and NFS, respectively.

The results depicted in Tables 3 and 4 show that there is a significant positive moderating effect of GP on the relationships between MNST, IG, and CUST on Success Factors. The influence of the moderator (GP) or the moderator effect size on the three dimensions (MNST, IG, and CUST) of the Main Factors towards the Success Factors were found to be medium, medium and small, respectively (Cohen, 1988) as well as the resulting beta changes are significant. Accordingly, the moderation effect of government policy on the relationship between these three variables and success factor are confirmed (see Tables 3 and 4). However, GP manifested its moderation effect on the relationship between BS and NSF with Success Factor in such a way that it has deteriorated the effect of these variables on the criterion variable (Success Factor). Hence, the moderation effect of government policy on the relationship between these two variables and success factor are confirmed (see Tables 3 and 4).

4.5 Summary of Findings

Two groups of hypotheses were tested in association with the proposed research model. These were included as 1) Direct paths hypotheses, 2) Moderating hypotheses. The significant effects for some of direct hypotheses and moderating hypotheses have been found.

Table 4. Summary of all significant paths

Relationship	Significant path (by inclusion of moderator)	Significant path (by exclusion of moderator)
MNST → Success Factor	Exist	Exist
CMTS → Success Factor	Not-existed	Not-existed
IG → Success Factor	Exist	Not-existed
CUST → Success Factor	Exist	Not-existed
IPMC → Success Factor	Not-existed	Not-existed
GC → Success Factor	Not-existed	Not-existed
BS → Success Factor	Not-existed	Exist
NFSSPI → Success Factor	Not-existed	Not-existed
NSF → Success Factor	Not-existed	Exist
IPF → Outcome	Not-conceptualized	Exist
IPMC → Outcome	Not-conceptualized	Exist
CUST → Outcome	Not-conceptualized	Exist

BS: Business Support, CMTS: Criteria Used To Screen Tenants, GP: Government Policy, GC: Graduation Criteria, IPF: Incubator Performance Factors, IG: Incubator Governance, IPMC: Incubator Performance Monitoring Criteria, MNST: Mentoring and Networking Support for Tenants, NFSSPI: Nature of Financial Support Services Provided by Incubator, NSF: Nature and Scope of Facilities.

All exogenous variables together explained 52.4% of the variance in Success Factors while including the moderation effect it has been increased to 62.3%.

5. CONCLUSION AND IMPLICATIONS

The hypotheses testing provided a strong evidence of a theoretical model for the 'ideal incubation' being generated. In overall, H1, H1a, H2, H3, H3a, H3b, and H5 are accepted whereas H4 is totally rejected. However, one should take note that there were several sub-hypotheses tested for H2, H3, and H5, of which some were accepted while others were rejected. Thus, these hypotheses are partially accepted. However, our objective was not to study each dimension of the main factor which caused several hypotheses to be rejected or accepted; rather the effects of the main factors on the ideal incubation were sought in a general picture. In general, then, our hypotheses are supported.

In simple terms, there is always an issue of opportunity costs which is forgoing of one for the sake of getting the other one. As economic resources are constantly scarce and rare, there is a matter of choosing the right policy and strategy which suits the circumstances as well as resources at the right time while investing in a few issues rather than spending in all aspects and getting none. In addition, one of the main findings and contributions of this study was the demonstration of the salient role of government policies as the key player in determining the business incubation success. This means that so far incubators are dependent greatly on government proclamation and as such, it plays a significant role in predicting their success.

5.1 Contribution to Theory and Practice

This research contributes to the business incubation stream associated with incubation research by means of examining the salient role of government policy enactment. Even though very much has been written about business incubation success factors, few researches have looked at the role of government policy enactment towards business incubation practice on the one hand and entrepreneurship on the other.

This study contributes to theory by evaluating variables in a holistic model including the introduction of government policy as a moderator. Little or no study has evaluated all the variables (Main Factors, Incubator Performance Factor, and Ideal Incubation) alongside with the moderator (GP). Other studies have assessed the incubator success factors without government policy acting as a moderator (e.g., Kumar and Ravindran, 2012; Mbewana, 2006; Ozdemir and Sehitoglu, 2013; Verma, 2004). The study may perhaps be considered as one of the first to combine numerous incubation dimensions and moderated by government policy.

On the contribution related to practice, it is expected that since there are challenges related to incubation programme in Nigeria, the findings of this research will help the practitioners and stakeholders to find the source of weaknesses and strength, and also at the same time to observe the level of success and outcome of such programme.

One of the main limitations of this study was its small sample size which made most of the path coefficients insignificant. However, it should be recalled that the sample size of this study was adequate based on justification provided in methodology section.

This study adopted the cross sectional approach for data collection. Therefore, future research may perhaps consider following the longitudinal methodology for sourcing data by using more practitioners within the business incubation sub-sector.

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