

Enhancing a Future version of the Nigerian SME Technology Incubation Model: Lessons for other developing countries

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Abstract- The Nigerian government's implementation of an SME incubation model has not been particularly successful. The challenges faced in Nigeria perhaps reflect how policies or models taken from elsewhere need to be adapted to local contexts for better chances of success. This is especially policies or models borrowed from developed countries and implemented in developing country contexts. Therefore this paper will focus on the case study implications for other developing countries of an inquiry into the requirements for enhancing a future version of the Nigerian SME incubation model.

Keywords: Business incubator, Developing countries, SMEs, Technology Incubation Model

I. INTRODUCTION

This research aims to improve on the existing business incubation model in Nigeria and developing countries generally which has been marred with series of flaws and weakness which have resulted into failure of the program. The rationale is to institute best practices that will move the program at par with related schemes in other countries especially USA and other Organization for Economic Co-operation and Development (OECD) countries.

The entrepreneurs who are formally described as SMEs are usually recognized as the foundation for the urban and economic growth of many nations. Globally, SMEs are noted for their massive assistance to the advancement procedure as well as engine for economic growth (Obitayo, 2001). The main benefit of this segment according to Aremu and Adeyemi (2011) is its job creation prospect at modest investment outlay. Kumar and Ravindran, (2012) also concur on this as they declare that entrepreneurship is vital to the growth of a country through employment generation, innovative products development as well as methods through modernization. Libecap, (2011) also declares that when policymakers as well as macroeconomists are anxiously looking for measures that could drive economic development, spurn inactivity as well as promote employment formation, private enterprise is usually the spotlight for consideration. Technology business incubation scheme is the particular mechanism that will actualize the above mentioned macroeconomic strategies. In citing NBIA, (2010), Al-Mubarak, (2012) declares that business incubators assist business enterprises to transform their thoughts into practicable as well as strengthening their ventures by assisting them from

commencement to when they will be able to survive on their own. Business incubators are mechanism for value addition to firms and incubatees. Incubation program is aimed at achieving three main macroeconomic objectives of job creation, economic development and international Networking.

Most industrialized and developing nations have implemented TBI scheme to accelerate the establishment of innovative knowledge-related businesses because of its above eighty percent success level of innovative business enterprise formation, as well as its support arising from its spinoff effects such as Technology transfer, job creation as well as capital.

II. LITERATURE REVIEW

The Technology Business Incubation (TBI) in Nigeria was put into practice in 1993 when the first Center was set up in Agege, Lagos (FMST, 2005). Ihenacho, (2005) pinpoints that there is proliferation of TBIs in Nigeria, but the performances of almost all of them are below expectation due to inadequate task execution and abysmal administrations. A crucial evaluation according, to Adegbite, (2001) shows that TBIs have failed to accomplish the basic purpose of developing sustained successful ventures. The growth of the initiative has been hindered by adaptation problem, incoherent financial support, structural difficulties in administrative dealings as well as ineffectively construed relationships with appropriate establishments as well as inconsistent government policies as they relate to Science, technology and innovation (STI) and Technology Incubation in particular. Other Achilles' heel to the Nigerian model which is similar to other developing countries include heavy reliance on government patronage as well as paying particular attention to physical amenities instead of services of intangible value.

Business incubation initiatives have really thrived seriously in places like Western Europe and North America where the idea of business incubation program was conceived, nursed and brought to the fore.

Most developing countries just like Nigeria aspire to institute best practices that will move the program at par with related schemes in other countries with success stories on incubation program particularly USA and other OECD countries but the dilemma faced by Nigeria as a developing country also affect majority of the developing countries in their path to a better incubation model. Since the initiative was a borrowed technology from the OECD Countries to developing countries the issue of adaptability has been a major predicament for some of the

emerging countries, for instance, Nigeria which adapted the scheme from the USA with recommendation and design from the United Nations Development Programme (UNDP) has social infrastructural problems, therefore how is the initiative going to succeed without the country first tackle the infrastructural problem.

III. DEVELOPING COUNTRIES CONTEXT – CHINA AND BRAZIL

China and Brazil are chosen as country cases because these two nations combined together host over 1000 incubators and are ranked third and fourth respectively in numerical terms. The choice of Brazil as a country of comparison in this study is based on the fact that as the entrepreneurship movement in Brazil has grown rapidly in recent years, the Business Incubators also follow this trend of rapid growth. Therefore this trend is ripe for detailed analysis of both movements given the fact that Brazil was being listed among the countries with highest entrepreneurial activity worldwide with comparable indices including USA.

Government participation in incubation programme in most developing countries is still very high in terms of establishment and funding. There is also lack of public – private partnership, hence the for-profit notion is not yet established (Akcomak 2009; Adegbite 2001). In terms of funding, there is lack of information on how much governments spend on the incubators as most funding for incubator promotion is integrated to other major funding programmes. For instance, most incubators in developing countries are supported by international financial institutions like the World Bank and UNDP, as the World Bank does not have a precise programme initiative for incubators but always fund particular projects (Scaramuzzi 2002). This will make incubator performance and evaluation not to be accurate as there is no clear cut information on the funding of the incubators. In most developing countries, incubator establishment and funding is always the prerogative of the governments, hence, governments attitudes towards the program will dictate the achievement or failure of the initiative (Stefanovic et al., 2008).

IV. BUSINESS INCUBATION IN CHINA

Business incubation initiative is an important strategy to help entrepreneurship and innovation in both developed and industrializing nations (OECD, 1999; UN, 2000). Scarborough and Zimmerman (2002) suggest that the reason for business incubation lies on two facts. The first being the small business is an important constituent of economic growth and social development. The second fact is that the failure rate of small business is high, especially at the start-up stage. In view of these high failure rates of small and new businesses vis-a-vis the important help they render to government and society, various ideas and plans have been invented to help these enterprises. Such strategies relate to the establishment, development and survival of new and small businesses (Cromie 1991; Xu 2010). One of the existing concepts and strategies adopted was the business incubation which began in China since 1987. The Chinese Business Incubators are funded by government. They use Business Incubators as a strategic mechanism for market creation by providing financial funding for both construction and operations of the business incubator. This, the government

accomplish through the TORCH Program of the Ministry of Science and Technology (MOST) which was set up in the 1990s by the central government to support the creation and growth of incubators in China. The government provides various lines of dedicated Funds to support incubation programs, for example, 'Construction' Funds for incubators, 'Seed Capital' Funds for start-ups and 'Innovation' Funds for SMEs that are in the growth stage of their life cycle. The Torch Program has made huge success in China. It was reported that as of 2003, fifty-three national Science & Technology Industrial Parks (STIPS) created over 3.5 Million jobs and \$200 Billion which translated to 18% of China GDP for that year. Also, 465 technology incubators are dynamically operational for sustainable advancement.

NBIA in 2007 estimated that about 5000 business incubators exist worldwide. The Chinese business incubation industry is generally accepted as the largest in developing countries and the second largest worldwide after USA.

V. BUSINESS INCUBATION IN BRAZIL

Brazilian incubation development started in the 1980s. The first incubator was set up in 1986 and by 1996, there were already forty incubators. Most incubators there were located in a university or a research institute and more than eighty percent of the tenants were spin-offs from the academia and other firms (Lalkaka and Bishop, 1996). At the start of the incubator movement, the chief impotence was lack of good relations with the university personnel and inadequate business support services (Akcomak 2009). The Brazilian Incubators exhibit the triple helix of the university, industry and government which enhances a synergy (Etzkowitz et al. 2005). Incubation models of different incubators in Brazil are based on the local needs which include easing of poverty, employment creation, economic development and technology commercialization (Lalkaka and Schaffer, 1999). Another fascinating feature of the Brazilian incubators is where already existing and reliable incubators are asked to develop newer incubators (Chandra 2007).

Scaramuzzi (2002) explains that micro and Small enterprises account for 98 percent of the existing firms in Brazil employ about 60 percent of the active population and contribute to 21 percent of its GDP. Although, according to him, 80 percent of such firms tend to fail before the expiration of their first year as a result of bureaucratic barriers, administrative barriers and lack of core management skills. Almeida (2005) in his study explains that in 2003 there were over 1000 incubatee firms with more than 15000 employees.

VI. FINDINGS

From the foregoing study, it has been shown that technology business incubation program is a good scheme for the survival and promotion of the Small and Medium businesses as well as an economic development strategy for countries especially the developing countries. The developing countries approaches to the scheme have been almost the same, especially in the areas of depending solely on government for financial support and other assistance. This is the case with Nigerian model, however, the Chinese model of business incubation have shown that despite government patronage, the incubation program in China has grown to be a major factor in contributing to both job creation as

well as huge contributor to the GDP of the country. The same is obtainable for Brazil; therefore some developing countries are on the right path to achieving the best practices of the incubation model.

VII. CONCLUSION

This paper has presented a general idea on business incubation especially as it relates to technological firms in developing countries with particular reference to Nigeria. There is need for stakeholders especially the policy makers to find a lasting solution to the problems facing the initiative as well as making the program to reflect the public-private partnership whereby government will reduce its stake on the program and concentrate on providing a conducive business environment in the area of infrastructural development which ought to be a prerequisite to the smooth running of the initiative. There is need for government policies especially as they relate to Technology Incubation to be properly and effectively implemented so as to achieve the objectives of the policy documents which are always extraordinary on paper but implementation always fall short of the expectations of the final beneficiaries.

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