

**Appraisal of government efforts on commercialization of
research and development (R&D) through technology incubation centres
in Nigeria**

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Abstract

This study evaluates government efforts on the commercialization of Research and Development (R&D) through Technology Incubation Centres in Nigeria. Mix research design was employed. The designs are descriptive survey and documentary research design. Two method of data collection were used in this study; primary and secondary. Finding from the study reveals that, Government through the TICs has provided infrastructures (laboratories, mechanical & technical workshop). These infrastructures have significantly impacted on the commercialization of Research & Development (R&D) result. The study concludes that, the Government infrastructures such as production units, laboratories; mechanical & technical workshop, quality control lab, equipment, electricity supply and water supply have enhanced the commercialization of R&D Result. Finding from the study reveals that, Government through the TICs, bank of Industry, Central Bank of Nigeria, World Bank have provided Loans and grants to incubatees. The Loans and grants have effectively aids commercialization of Research & Development (R&D) result. The study concludes that, loans and other financial institutions through the government effort have enhanced commercialization of Research & Development (R&D) result. The study therefore recommends that, Government should further provide funds for the provision of more infrastructures so as to ensure technological transformation through commercialization of R&D. Financial Institutions in Nigeria should provide loan and grant to all the incubatees admitted in technology incubation centres. This would further strengthen their capacity to produce quality product that can compete globally

Keywords: Research and Development, Incubation centers, Technology.



Introduction

Technology Incubation Centres (TICs) in Nigeria were established as research institutes to bridge the gap between Universities/Research institutes (providing the R&D), industry (Commercializing the R&D) and government agencies (providing support and Intervention) thereby aiding technology development from the laboratory to the industry. But most centres were constrain due to inadequate funding, technical skills needed for technological transformation, inadequate credit loan for inventors and innovators, policies to protect local made technology product from foreign competitors. Although, few successes were recorded in the area of provision of few infrastructures, subsidizing administrative services for prospective incubatees and funding the operation of the technology incubation programme. But, Technology Incubation Centres are faced with the challenges of actualizing full commercialization of R&D result from Nigerian universities and research institutions in Nigeria¹. These challenges may include; inadequate institutional linkages for commercialization of R&D results; poor sourcing for high and emerging technologies; poor professional training for incubatees at TICs; inadequate support for skill acquisition and lack of intellectual property right (patent) for TICs products. All these challenges may have been the reason why indigenous technologies in Nigeria are uncompetitive². This study seeks to evaluate the government efforts on the commercialization of Research and Development (R&D) through Technology Incubation Centres in Nigeria³. This study seeks to answer the following research questions: What is the effect of infrastructures (laboratories, mechanical & technical workshop) on commercialization of Research & Development (R&D) result? What is the effect of loans and grants to incubatees' on commercialization of Research & Development (R&D) result? How effective is the capacity building (training) on the incubatees' ability to commercialize Research & Development (R&D) results?

The main objective of the study is to appraise Government effort on the commercialization of result and development in Nigeria, while the specific objectives are to; ascertain whether or not infrastructures (laboratories, mechanical & technical workshop) has effect on commercialization of Research & Development (R&D) result; determine whether or not loans and grants to incubatees' has effect on commercialization of Research & Development (R&D) result and examine the effect of capacity building (training) on the incubatees' ability to commercialize Research & Development (R&D) result. The following Propositions were formulated to guide the study: Government infrastructures (laboratories, mechanical & technical workshop) have effectively aids commercialization of Research & Development (R&D) result; Loans and grants to incubatees' have effectively aids commercialization of Research &

¹Musa, Zakari.,Baba'umma, Mohammed. Bello and Bello, Ohiani. An assessment of National Policy on Technology Incubation and Skill acquisition in Nigeria (2013-2018), Jigawa Journal of Politics, Vol. 2(2). (2019): 202-221.

²Musa, Zakari. Hussaini, Tukur Hassan and Akilu, Muhammad, National Technology Incubation Policy and Technology Development in Nigeria, Vol. 7(2), (2018):12-20

³Musa, Zakari., Musa, Abu. Karim.and Bello, Ohiani, Performance of Technology Incubation Policy and Programme in Nigeria, Journal of Multi-disciplinary Studies, Vol. 1(2), (2019): 45-58.

Development (R&D) result and Capacity buildings (training) for incubatees have effectively aids commercialize Research & Development (R&D) result.

Conceptual Clarification

Concept of Technology Incubation Program

According to Abdullahi⁴ defined Technology Incubation programme is a veritable institutional mechanism for the commercialization of Research and Development results from the academia, specialist research centres and other innovative efforts targeted towards accelerating the economic and technological development of a nation.

The above statement was corroborated by Lalkaka and Shaffer⁵ stated that the objective of an incubator is to help promote venture creation and economic development by providing affordable work space, shared facilities, counselling, training, information and access to professional networks.

From the definition above, we can deduce that, the aim of the policy is to commercialize technological-based inventions and innovations that emanate from universities, research institutions, colleges of education and even individual for the purpose of engendering entrepreneurship culture, create jobs and wealth for business owners. National Policy on Technology Incubation is an entrepreneurship developmental programme that deals with fostering the formation of new venture, fast-tracking research to industries linkages, facilitating innovation with the aims of creating jobs and wealth generation.

The researcher further argue that, The aim of the Technology Incubation Programme is to accelerate the industrial development of Nigeria through the creation of new businesses, jobs, wealth with a corresponding reduction in poverty. According to Ndagi⁶ incubators use strategies such as increased access to capital, technical and business management training, contract procurement assistance, creating networking opportunities through clustering, creating access to credit facility, export and technology transfer assistance. These services are provided through collaboration, synergy and liaison with other entrepreneurship development organization within the same region.

Challenges toward Implementation of National Policy on Technology Incubation in Nigeria

High Costs in Innovation, Lack of Appropriate Sources of Finance, Regulations and Standards, Perceived Economic situation, Risks, Lack of Qualified Personnel, Lack of Customer Responsiveness, Lack of Information on Markets, Intra-Organisational Rigidities, Lack of Information on Technologies, Increased Competition, Overall Market Growth, Marketing and Sales Skills, Availability / Cost of Finance, Skilled Labour Shortage, Availability/Cost of Overdraft,

⁴Abdullahi, G. L. "National Board for Technology Incubation–Federal Ministry of Science and Technology." Official Phamphlet (2005):1-7.

⁵Lalkaka, Rustam, and Pier Abetti. "Business incubation and enterprise support systems in restructuring countries." Creativity and innovation management 8, no. 3 (2009): 197-209.

⁶Ndagi, Abdulmalik. "Role of Technology Incubation on Entrepreneurship Development in Nigeria: a Case Study of Minna Technology Incubation Centre." International journal of advanced studies in economics and public sector management 5, no. 3 (2017): 132.

Management Skills, Availability of Premises, Implementing Technology, Acquisition of Technology and Access to Overseas Markets, Poor Knowledge Sharing or Networking, Inadequate Funding of Research and Development or Using New Technologies and Lack of Protecting Knowledge / Intellectual Property⁷.

Review of Empirical Studies

Ndagi⁸ examined the role of Technology Incubation on Entrepreneurship Development in Minna Technology Incubation Centre. The study used exploratory case study approach. The findings include establishment of Forty three new ventures, one thousand four hundred and ninety-one jobs were created, value addition on nine entrepreneurs' products and a number of community improvement initiatives. The paper recommendations include recognition of technology incubation as an entrepreneurship development programme, promotion and development of technology incubation to fast track entrepreneurship development in Nigeria, harmonization of technology incubation and entrepreneurship development agencies in the country etc.

Ogunlela⁹ explore the impact of National Directorate of Employment Programmes on graduate employment and unemployment in Kaduna State of Nigeria, using both secondary data as well as oral interview. The study found out that the impact of NDE on graduate employment in Kaduna State has not been particularly positive and much still needs to be done. Only modest achievement in the area of generation of graduate employment has so far been recorded, calling for a thorough reappraisal of its programme in order to overhaul the system.

Ogundele, Akingbade, and Akinlabi (2012) examined the contribution of Skill Acquisition and training on unemployment reduction through youth empowerment and social welfare service improvement will be much significant if encouraged at all the level in the state especially at local and community level. This position approximate¹⁰, who opined that nongovernment organization, can play a vital role in Training and Skill Acquisition. This is evident from the success story of project YES as findings revealed that the scheme has contributed to the economic uplift of the youths by providing them with vocational skill acquisition and counseling services aimed at reorienting their attitudes towards self and societal development.

Akpama, EsangAsor, Osang¹¹observed that acquisition of vocational skills lead to a significant reduction of poverty among young adults who participated on

⁷Musa, Baba'umma, and Bello, 212

⁸Ndagi, 98

⁹Ogunlela, 172

¹⁰Ohize, Emanuel Jose, and MuhammedJebbaAdamu. "Case study of youth empowerment scheme of Niger state, Nigeria in poverty alleviation." AU Journal of Technology 13, no. 1 (2009): 47-52.

¹¹Akpama, Simon Ibor, ObalUsangEsang, Love Joseph Asor, and William OtuOsang. "Non-formal education programmes and poverty reduction among young adults in Southern Senatorial District, Cross River State, Nigeria." Journal of Educational and Developmental Psychology 1, no. 1 (2011): 154-161.

skills acquisition programmes. Entrepreneurial studies are inter-disciplinary training that focuses on the tools needed to start a new business or vocation. Because Nigeria is fast becoming a predominantly youthful society with high rate of unemployment, it requires training the youth in entrepreneurship skills in technical vocational education and training to tackle unemployment which has reached alarming proportions.

Amadi and Abdullah¹² reported from their study that a greater percentage of the sampled youth reported high and moderate levels of their capacity building; implying that the vocational skills acquisition and development was a successful scheme. They however recommended that the constraints that impede the success of the scheme be addressed by policy makers to make the outcome of the skills training more successful. Adofu and Ocheja¹³ investigated the conduct of Skill Acquisition and training in alleviating poverty and unemployment in Kogi state, Nigeria. This relationship between entrepreneurship skill acquisition and poverty/unemployment was analyzed using descriptive statistics. The descriptive tools consisted of the use of percentages and frequencies presented in a tabular form. A chi-square test (χ^2) was employed to test the validity or otherwise of the effect of entrepreneurship skill acquisition on poverty alleviation and unemployment reduction in Nigeria using primary data obtained in six local government areas that made up the four district of the state. The result shows that 65% of the respondents accepted that lack of entrepreneurship skills among youth is responsible for the high rate of poverty/unemployment in Nigeria. The result also revealed that at least 60% of the people that benefitted from the skills acquisition programme can now afford the basic necessity of life. The study therefore recommended that since most of the people that benefited from the programme could afford the basic necessity of life, the government should begin to think of the way of developing the programme to the status of poverty/unemployment eradication programme.

Gap in Literature

More often than not, Scholars focuses their study on different perspective that differs from this study. For instance Ndagi, Sarvanan focuses on implementation Technology Incubation on Entrepreneurship Development, Sarvanan, Gupta and Ghatak focus their study on SMEs and entrepreneur's operations and contributes to African employment and Gross Domestic. Ezeji and Okorie focuses on skills acquisition in national growth as stated by, Kanyenze, et al, focuses on skills acquisition from trainings in vocational and technical skills.

¹²Amadi, Bede Obinna. "Perceptions of capacity building among youths involved in vocational skills development." *Journal of Social and Development Sciences* 3, no. 6 (2012): 214-222.

¹³Ekong, Ududak M., and Christiana U. Ekong. "Skills acquisition and unemployment reduction in Nigeria: A case study of National Directorate of Employment (NDE) in Akwalbom State." *International Journal of Economics and Management Sciences* 5, no. 4 (2016): 1-10.

Isike¹⁴ focuses on entrepreneurship as global and national tool for generating a sustainable economy which is the core value of the National Economic Empowerment Development Strategies (NEEDS). Through such Skills Acquisition, the establishment of small businesses helps to generate substantial amount of employment and income which are essential parts of a country's Gross National Product (GNP) on the one hand and reduce unemployment on the other. For the laudable benefits of entrepreneurship skills acquisition to manifest in our youths' and the general public, skills must be learned through formal or non-formal settings.

But this study focus on commercialization of R&D result enshrine in entrepreneurship innovation. commercialization of R&D result in the context of this study refers to an individual's knowledge and ability to perform specific tasks successfully by transform ideas into tangible products; Entrepreneurship according to this study is the process of perceiving business opportunities, mobilizing both human and material resources and initiating action(s) under an enterprise which is characterized by risk taking, innovation and creativity to meet individual, group or societal needs. Entrepreneurship skills therefore, are business skills which one acquires to function effectively in the turbulent business environment as an independent or self-employed person in order to improve one's economic status and the society at large. The importance of entrepreneurship skills acquisition cannot be over-emphasized since appropriate skills acquisition through entrepreneurship will help to make young school leavers to be self-reliant and boost their economic status.

Theoretical Framework

Institutionalism Theory

Since the 1970s public administration institutions as a research domain has increasingly opened up to contributions from other social sciences such as history, political science and sociology. It has become less normative and more empirical, considering institutions as dependent variables as well as autonomous actors. New schools of thought have emerged in academic circles. Institutional theory is a label that oversimplifies the fact that such schools are not exactly alike: they do not share the same agenda. There are four of such streams: historical institutionalism, sociological institutionalism, new institutionalism, and local order or actor institutionalism. Each develops a more or less specific set of theoretical as well as empirically grounded interpretations. Each also covers major facets of what institutionalization processes are. Political and administrative machineries experience path dependencies. They are embedded in societal environments. They function like specific social systems. In this study, new institutionalism will be used for analysis.

¹⁴Uzodike, UfoOkeke, and Christopher Isike. "Whose security? Understanding the Niger Delta crisis as a clash of two security conceptions." *African Security Review* 18, no. 3 (2009): 103-116.

Institutional theory was first originated in American by DiMaggio and Walter W. Powell in 1983¹⁵. New institutionalism perspectives favour a vision of democratic order in which responsibility is a consequence of the institution of the individual, citizens are free, equal and discipline-oriented agents, and governance is enlightened and rule-constrained¹⁶

New Institutional theory streams have become leading and widely shared references in public administration¹⁷. Because they consider public institutions through three different lenses - as pillars of political order, as outcomes of societal values, and as self-constructed social systems - they offer exciting arenas for academic debates as well as they also provide pragmatic or architectonic principles. This means that, Institutional theory is a theory on the deeper and more resilient aspects of social structure. It considers the processes by which structures, including schemes; rules, norms, and routines, become established as authoritative guidelines for social behaviour.¹⁸

Institutionalist claims that, Policy is a product, authoritatively determined, implemented and evaluated by the government institutions: Legislature, presidency, elective officials and the bureaucracies both at local and national level. The further explained that, a policy does not become a public policy until it is legitimized by government entity concerned. Government policies provide legal powers that demand obligations from and command loyalty of its subject¹⁹.

The structure of the various government institutions contribute to the context of public policy implementation. The Constitution serves as the highest kind of policy to which all other policies must subscribe. Laws passed by legislature, executive orders and judicial decisions come second in terms of relevance and priority²⁰.

Assumptions of the Theory are²¹:

1. Social actions
2. Individuals have little impact
3. structure/design affects outcomes

Criticism of Institutionalism Theory/Model

They are sometimes criticized as "structurally biased," though this is a feature of institutional arguments that has distinctive explanatory advantages as well as

¹⁵DiMaggio, Paul J., and Walter W. Powell. "The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields." *American sociological review* (1983): 147-160.

¹⁶ Olsen, Johan P. "Garbage cans, new institutionalism, and the study of politics." *American Political Science Review* 95, no. 1 (2001): 191-198.

¹⁷ Frederickson, H. George. "The repositioning of American public administration." *PS: Political Science & Politics* 32, no. 4 (1999): 701-712.

¹⁸DiMaggio and Walter, 132

¹⁹Frederickson, 707

²⁰Ibid

²¹ ibid

disadvantages²². Institutionalists typically have problems in explaining social and political change, notably in institutions themselves, and often resort to claims about exogenous and unpredictable shocks or the actions of various agents.

Application of institutional theory to the Study; Public policy is determined by government institutions, which give policy legitimacy. Government universally applies policy to all citizens of society and monopolizes the use of force in applying policy. The legislature, executive, ministries, agencies and judicial branches of government are examples of institutions that give policy legitimacy, i.e. policy is authoritatively determined, implemented, and enforced by these institutions. Considers policy as an institutional output (Institutions refers to government institutions). Government institutions have long been a central focus in the determination of public goods. The relationship between public policy implementation and government institution is close because a public policy cannot become a public policy until it is opted, implemented and enforced by some government institutions²³. In the same vein, National policy for Technology incubation is a public Policy because it is opted, implemented and enforced by National Board for Technology Incubation and the implementation of this policy is done through series of Technology Incubation Programme. The aim of the policy therefore is to boost the industrial base of the country through commercialization of Research and Development Result (R&D) from tertiary institution and other research institutions in the country.

Methods

Mix research design employed. The designs are descriptive survey and documentary research design; survey was employed because opinions of the respondents were sought. Survey research design involves the use of questionnaires to generate data in order to answer the research question(s) and/or analyze specific hypothesis. The target populations of this study are the Incubatees/Entrepreneurs and staff of Technology Incubation Centres (TICs). The study population covers two selected (2) Technology Incubation Centre in each Geo-political Zone of the Federation.

The following centres were purposively selected. They are; Ekiti and Lagos State in South West, Kwara and Niger states in North Central, Kaduna and Kano states in North West, Enugu and Abia states in South East, Edo and Cross River states in South-South and Adamawa and Taraba states in North East. These states are selected in order to ensure representative from all geo-political zones in the country. Total number of incubatees' strength in all the 45 Technology Incubation Centres in Nigeria stood at 668 from 2013 to date. A sample of 412 populations was taken from the total number 668 population which represent 62% of the total population.

Two method of data collection were used in this study; primary and secondary. The primary method consists of two sources: Quantitative data and the qualitative data, Quantitative data are numerical data and the closed-ended

²²ibid

²³ ibid

questionnaire was used to generate the data. Qualitative data on the other hand are the opinion of the respondents through the interviews and open-ended questions were used to obtain information.

Secondary data was sourced from documented materials such as incubatees' monthly progress report, National Policy on Technology Incubation in Nigeria. Academic Journals articles on Technology development and innovation, Technology Incubation Programme, skill acquisition, Public Policy Formulation and Implementation hand book, conference materials/articles on National Council on Science and Technology. Materials are sourced from National Board for Technology Incubation library in Abuja, National library of Nigeria, Centre for Entrepreneurship Development (CED) Abuja and internet using Google search.

For the purpose of this study, two statistical techniques of data analysis were utilized; they are descriptive and inferential data analysis: The descriptive statistics was used to present and interpret quantitative data. Descriptive statistics are; frequency table, figure and chart.

The Statistical Package for the Social Sciences (SPSS) was used to present and analyze the data. That is, SPSS was used to compute frequency table and corresponding chart. In analyzing the data collected using the questionnaire. The descriptive statistics such as, tables, frequencies, percentages were used to present the data drive from the research questions.

Weighted Mean score was used to analyze the research hypothesis under a defined rule: Decision rule was applied to accept or reject the research hypothesis:

1. Accept any element with weighted mean score value of 3.5 and above, and
2. Reject any element with weighted mean score value of less than 3.5 and below.

This means that, research hypothesis with more 3.5 weighted mean score value was accepted as being valid while research hypothesis with less 3.5 weighted mean score value was rejected as being invalid. Three points Likert scale of weighted Mean Score were used to analyzed the data. The 'agree, disagree and undecided' response patterns were employed, and weight were assigned to each response. 'Agree = 3, Disagree = 2 and Undecided = 1'

Mode for calculating Weighted Mean Score is as follows:

$$\frac{\sum \text{Total Weighted Score}}{\text{Total Number of Responses}}$$

Result and Discussion

Government infrastructures (laboratories, mechanical & technical workshop) have effectively aids commercialization of Research & Development (R&D) result.

Table 10: Calculation of Critical Value of Weighted Means Score

Variable	Agreed	Disagreed	Undecided	Total Number of Respondents/Score	Weighted Mean
Responses	287	86	21	394	1054/387
Grading	3	2	1	-	-
Total Value	861	172	21	1054/394	2.68
Decision	-	-	-	-	Accepted

Self-Computation

Table 10 above show the result of the calculated value of weighted means score which stood at 2.68. This means that, the calculated value is significant because, the result is greater than 2.49. Therefore the study accepts the propositions which stated that Government infrastructures (laboratories, mechanical & technical workshop) have effectively aids commercialization of Research & Development (R&D) result. The study concludes that, the Government infrastructures such as production units, laboratories; mechanical & technical workshop, quality control lab, equipment, electricity supply and water supply have enhanced the commercialization of R&D Result. This means that, infrastructural provided has led to the commercialization of pharmaceutical equipment, integrated process machine, trade-medical equipment, Neem oil extraction machine, car security tracker, digital change over, software development, agricultural incubators, diesel sludge extractors, palm kernel oil crushing machine, tricycles assorted fabrications, industrial stove, grinding machine, acha processing machine, milling machine pounding yam machine, power inverter & generator power booster, paints production, produces agro based machines, asbestos ceiling, organic fertilizers, mobile rest room fabrication.

Research proposition II

Loans and grants to incubatees' have effectively aids commercialization of Research & Development (R&D) result

Table 4.11: Calculation of Critical Value of Weighted Mean Score

Variable	Agreed	Disagreed	Undecided	Total Number of Respondents/Score	Weighted Mean
Responses	200	191	3	394	985/394
Grading	3	2	1	-	-
Total Value	600	382	3	985/394	2.50
Decision	-	-	-	-	Accepted

Self-Computation

Table 11 above show the result of the calculated value of weighted means score which stood at 2.50. This means that, the calculated value is significant because,

the result is greater than 2.49. Therefore the study accept proposition which stated that, Loans and grants to incubatees' have effectively aids commercialization of Research & Development (R&D) result. The study concludes that, loans and other financial institutions support have enhanced commercialization of Research & Development (R&D) result. This shows that, loans and grants received by incubatees' have enhanced their capacity to commercialize more innovative products.

Research Proposition III

Capacity buildings (training) for incubatees have effectively aids commercialize Research & Development (R&D) result

Table 12: Calculation of Critical Value of Weighted Mean Score

Variable	Agreed	Disagreed	Undecided	Total Number of Respondents/Score	Weighted Mean
Responses	179	212	3	394	964/394
Grading	3	2	1	-	-
Total Value	537	424	3	964/394	2.44
Decision	-	-	-	-	Rejected

Self-Computation

Table 12 above show the result of the calculated value of weighted means score which stood at 2.44. This means that, the calculated value is not significant because, the result is less than 2.5. The study reject the proposition which stated that, Capacity buildings (training) for incubatees have effectively aids commercialize Research & Development (R&D) result. The study concludes that, incubates has not benefited much on Capacity buildings (training) from Government, NGOs, World Bank, SMEDA, AFDB, NDE's empowerment programme and skill acquisition in Nigeria. We canState Government, NGOs, World Bank, SMEDA, AFDB, NDE's.

Discussion of Findings

Finding from the study reveals that, Government infrastructures (laboratories, mechanical & technical workshop) have effectively aids commercialization of Research & Development (R&D) result. The study concludes that, the Government infrastructures such as production units, laboratories; mechanical & technical workshop, quality control lab, equipment, electricity supply and water supply have enhanced the commercialization of R&D Result. This finding corroborated with the study conducted by Musa, Musa, and Bello (2019) whose study revealed that, Technology Incubation Policy and Programme has significant achieve its objectives of nurturing technology development in Nigeria.

Finding from the study reveals that, Loans and grants to incubatees' have effectively aids commercialization of Research & Development (R&D) result. The study concludes that, loans and other financial institutions support have

enhanced commercialization of Research & Development (R&D) result. This shows that, loans and grants received by incubatees' have enhanced their capacity to commercialize more innovative products. This finding in line with the study conducted by Musa, Hussaini and Akilu (2018) which study also revealed that, National Technology Incubation Policy has enhanced Technology Development in Nigeria.

Finding from the study reveals that, government effort with aids of other sister agencies has provided capacity buildings (training) for incubatees which invariably enhanced commercialization of Research & Development (R&D) result. The study concludes that, incubates has benefited much on Capacity buildings (training) from Government, NGOs, World Bank, State Government, NGOs, World Bank, SMEDA, and NDE. This finding in conform with the study conducted by Musa, Baba'umma, and Bello (2019) which also revealed that, National Policy on Technology Incubation has enhanced Skill acquisition in Nigeria.

Conclusion and Recommendations

This study concludes that, National Policy on Technology Incubation to a large extent has enhanced commercialization of Research & Development (R&D) result and Patenting of the commercialized products. Government funding of National Policy on Technology Incubation has increased the capacity of Technology incubation centres. The centres currently have 846 production Units (Workshop) with about 742 incubatees currently admitted and operational. Other incentives provided are; laboratories, Free utilities, Technical Training on production, marketing, booking keeping and Bankable business plan; Sponsorship trade fair and exhibition, bank loan and Grant has effect on their innovation. Government effort has driven companies that have become key players in the nation's economy; Federal Government of Nigeria have serious provided platforms for synergy between the major stake holders in Government, Industry and the Academia.

The study recommends that;

- i. Government should further provide funds for the provision of more infrastructures so as to ensure technological transformation through commercialization of R&D.
- ii. Financial Institutions in Nigeria should provide loan and grant to all the incubatees admitted in technology incubation centres. This would further strengthen their capacity to produce quality product that can compete globally.
- iii. State Government, NGOs, SMEDA, AFDB, NDE should step up their effort to support federal government in reducing the problem of unemployment in the country through sponsorship empowerment programme for youth and women in Nigeria. They should provide funds to incubatees to train youth and women on various skills.