Lapai Journal of Economics; Volume 3, No.1; 2019
Print ISSN: 2659-028X
Online ISSN: 2659-0271
Published by Department of Economics, IBB University Lapai, Niger State, Nigeria

Industrialization as a Tool for Entrepreneurship Development in Nigeria

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Abstract
The study examines the impact of industrialization on entrepreneurship development in Nigeria using Nigeria as a reference point by covering only North Central of Nigeria. The study used the survey research designs as well as the structured and applied regression model on variables such as improved productive input and entrepreneurship development. Findings of the study revealed that there is significant relationship between industrialization in form of improved productive input and entrepreneurship development using SMEs in North Central Zone, Nigeria. This implies that industrialization in the form of improved productive input contributes significantly to entrepreneurship development in North Central Nigeria among SMEs owners. The study recommends that North Central, Nigeria should start to embrace entrepreneurship and practices of innovation; risk taking, creativity and financing should be properly encouraged to ensure industrialization in terms of improved input. Government should re-strategize to ensure that every member of the society is productive by providing them with productive inputs as well as encourage domestic consumption and use of made-in-Nigeria good. Entrepreneurship development should be encouraged in North Central, Nigeria to bring effective productive input.

Keywords: Industrialization, Entrepreneurship Development, Expansion of Industry, Productive Input, Domestic Consumption.
JEL Classification: L26, O14

1. Introduction

Industrialization is an important and powerful instrument for stimulating entrepreneurship development in developing countries like Nigeria. The substantial and significant progress Nigeria has made in terms of industrialization from-independence has brought various ways

and innovation in aiding entrepreneurship development. Industrialization has been seen as a veritable channel of attaining lofty desirable conception and goals of improved quality of life and the populace (Jalilian, Tribe, & Weiss, 2000). This is because; industrial development involves extensive technology- based development of the productive (manufacturing) system of the economy. Industrialization is a generic name for a set of economic and social processes related to the discovery of more efficient ways for the creation of value in order to ensure the development of entrepreneurs (Jalilian, Tribe, & Weiss, 2000). Industrialization is a way to ascertain that entrepreneurs develop new product, assume risk and finance the most profitable business using productive input such as labour, raw material, capital and domestic consumption that are available to the society through the art of industrialization.

Over the years, Nigerian government has implemented polices that bring industrialization in terms of expansion of industry, productive input such as labour, raw material, capital and domestic consumption in order to ensure that entrepreneurs discover ways to developed their skills such as risk taking, innovation, entrepreneurship training, finance and creativity. Yet, entrepreneurs in Nigeria are skill adopting old ways of doing business without taking risk, innovating product or services and providing adequate training that will ensure creativity in order to finance the business properly. However, the main objective of this study is to examine the impact of industrialization on entrepreneurship development in North Central, Nigeria.

2. Literature Review

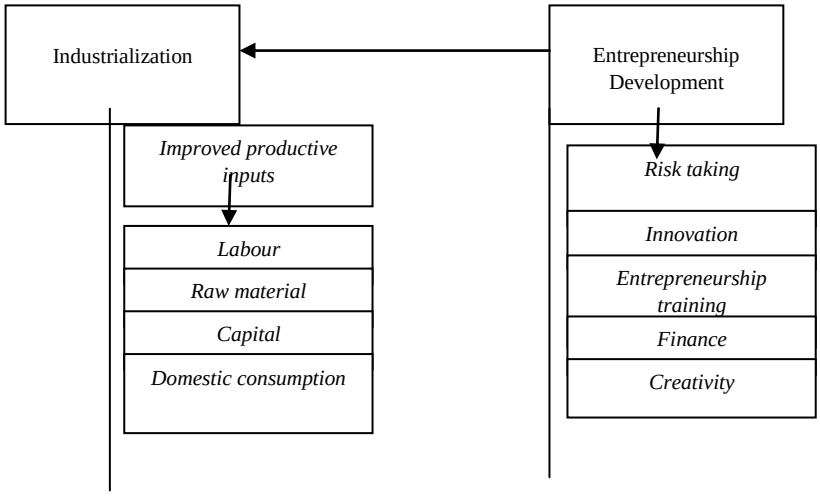
Industrialization is an essential aspect of long-run development in nations that have achieved socio-economic development, though with some attendant environmental consequences (Aneta, 2006). Industrialization is to increase output using the more mechanized system of production. Industrialization is the process of building up a nation's capacity to convert raw materials and other inputs to finished goods for other production or for final consumption (Anyanwu, Oyefusi, Oaikhenan and Dimowo, 1997; Ekpo, 2005).

It also involves the application of scientific methods to solving problems, mechanization and a factory system, division of labour, growth of the money economy, and increased mobility of labour force both geographically and socially (Zurekas, 2001). In this study, industrialization is conceptualized as a process of ensuring advanced productive input such as labour, raw material, capital and domestic consumption into an economy in order to ensure the development of such economy

Entrepreneurial development is productive transformation of an entrepreneur and the ability to identify business opportunities, harness the necessary resources and willingness to initiate and sustain appropriate actions towards actualization of business objectives (Ndechukwu, 2001; McOliver, 1998; Ameashi, 2006). Paul (2013) noted that entrepreneurship is more than starting a business. It is also a process through which individuals identify opportunities, allocate resources, and create value. Entrepreneurship is the manifest ability and willingness of individuals, on their own, in teams, within and outside existing organizations, to perceive and create new economic opportunities, –introduce their ideas in the market in the face of uncertainty and other obstacles, by making decisions on location, form and use of resources and institutions (United Nations Conference on Trade And Development 2005).

Entrepreneurship is "at the heart of national advantage" (Porter, 1990). In this study, entrepreneurship development is conceptualized as a process of risk taking, innovation, entrepreneurship training, finance and creativity in order to provide adequate good and services that have not existed before or adding value to the existing products, ideas or goods and services.

2.1 Conceptual Model



Source: The Researcher

The researchers conceptualize this model by indicating the concept of industrialization and concept of entrepreneurship development. The model explains that entrepreneurship development contributes to industrialization which implies that entrepreneurship development is a function of industrialization. The model further realizesing that industrialization is a way of ensuring improved productive inputs in a country by bring about effective labour, good raw material, capital and domestic consumption in order to help entrepreneurship develop by taking risk to invest their capital, innovating product, ideas, goods and services and receive training that makes them effective in discovering new business opportunities and finance the new business by being creative.

The simple theory of industrialization states that two general assumptions are necessary to achieve this. First, output is produced both by skilled and unskilled labour. Second is that households derive benefits from both income (generated from both skilled and unskilled labour) and human capital (generated from the education obtained by children)(Acemoglu, 2008). The theory believes that industrialization is a sure ground for economic growth that ensures entrepreneurship development in making them to produce products with new features and quality.

Jackin (2004) examined the impact of industrialization on entrepreneurship development in the United States of America. He used the survey research method and administered questionnaire to small and medium scale enterprises. The population of the study was the entire SMEs owners in the United States but the researcher determined the sample size by using accidental method of selecting only 300 respondents that participated on the research. The study used regression and the finding showed that there was a significant relationship between industrialization and entrepreneurship development.

In their contribution, Jelilov, Enwerem and Abdurahman (2013) studied the impact of industrialization on economic growth: The ten (10) selected Economic Community of West Africa (ECOWAS) Experience members' states (2000-2013) namely; The Republic of Nigeria, The Benin Republic, Cape Verde, Cote D'voire, The Gambia, Ghana, Guinea Bissau, Mali, Niger and Senegal. The study set three major objectives which included investigating the effect of fiscal and monetary policy on Gross Domestic Product, determining the relationship between government spending and industrial development and to determine the effect of budget on investment or employment generation. The study only utilized secondary data from their respective countries. The study specified a workable model in which GDP was the dependent variable while industrial output, foreign direct investment, interest rate, foreign exchange rate and inflation rate were independent variables. the ordinary least square (OLS) technique, F-test was used as analytical techniques. The study revealed that industrialization has a negative impact on economic growth in Nigeria in the long run. This was confirmed by the F-test value (559.02).

Finally, Lukman (2013) studied the rate of industrial development in developing nations, considering the case of Nigerian small and medium scale business enterprises (SMEs) in order to unlock the potentials that are eminent in the manufacturing sector. A total of 600 SMEs owners and managers were administered questionnaires. The analysis of this research work was based on the opinion of the successful 517 respondents. The result obtained from this research suggested that there were no special techniques employed by the SMEs other than the fact that they were able to manage the situation and still ensure business profitability despite the huge economic deficiencies present in the economy

3. Methodology

This study used primary data by administering questionnaire to owners of SMEs. However, the population of this study was 9580 SMEs owners in North Central Zone of Nigeria. North Central Nigeria is Nigeria because they are centre of Nigeria and the headquarter of Nigeria is located in Abuja. According to Small and Medium Enterprises Development Agency of Nigeria Survey, (SMEDAN) 2013 and this was reduced using Yamane Taro (1967) formula as stated below:

384. The study covered a period of 13 years from 2005-2017 and this period was chosen because it involved the period Nigerian Government started to encourage industrialization. However, this period was also chosen because government of Nigeria made entrepreneurship education compulsory in all institutions of learning in 2006 which was also included at this period. The study is significant to Nigerian Government because it will assist her to ensure proper industrialization in ensuring that productivity input are available for entrepreneurs to use and develop new product or create new ideas in the market. The

study will also benefit entrepreneurs since it would assist them to identify business opportunities through the process of industrialization in Nigeria. The study is also significant because it would fill a research gap in knowledge and help students who want to further carry out research in this area of interest.

Simple random sampling was used to administer questionnaires to respondents because it allows for equal opportunity of the respondents selected. The questionnaires were administered to the respondents in each state of the North Central Zone. The questionnaire was administered on based on proportional method as shown in the table below:

Table 3.1: Proportion of the sample size

State	Population	Proportion	Sample size
Benue	1167	1167 x384/9580	47
Kogi	844	844 x384/9580	34
Kwara	226	226 x384/9580	9
Nasarawa	1120	1120 x384/9580	45
Niger	1357	1357 x384/9580	54
Plateau	2180	2180 x384/9580	87
FCT	2690	2690 x384/9580	108
Total	9580	-	384

Source: Researchers Computation

The questionnaire used five point Likert scale with strongly agreed represented by 5, agreed by 4, undecided by 3, strongly disagreed by 2 and disagreed by 1.the questionnaires were administered to ascertain the return rate as presented on the table below:

Table 3.2: Return Rate of the Respondents

Responses	Questionnaires Administered	Questionnaire Returned	Percentage (%)
Male	119	96	34.53
Female	265	182	65.46
Total	384	278	100

Source: Field Survey, (2019)

The table shows that 34.53% of the respondents are male owners of SMEs-and 40.48% of the respondents are female owners of SMEs.

The study also tested for reliability and it is shown in the table below:

Table 3.3: Scale Reliability of Variables

Variables	Items	Cronbach's Alpha
Productive Input		0.87
Entrepreneurship Development		0.92

Source: researcher's computation (2019)

Based on the result shown in the table above, the variables have Alpha value above 0.7, which means that all variables in the instrument are deemed reliable which implies that a minimum Cronbach's Alpha value of 0.7 is stated to be reliable (Ritter, 2010). The

regression analysis is used to determine whether there is a relationship between industrialization and entrepreneurship development. The model is stated below:

$PRII = \alpha + \beta_1 ED + \mu$ ……...1

Where:

PRII= Improve Productive Input (productive input of labour, Raw material use in production of modern goods, capital and domestic consumption).
a = constant
β_1 = Coefficient
ED= Entrepreneurship Development (innovation, creativity, risk taking and finance).
μ = Error term

4. Data Analysis

Tables 4.1: Assessing the Improve Productive Input

Items	SA	%	A	%	U	%	DA	%	SDA	%	Total
1	101	36.33	89	32.01	11	3.95	21	7.55	56	20.14	278
2	118	42.44	77	27.69	5	1.79	19	6.83	59	21.22	278
3	122	43.88	59	21.22	10	3.59	19	6.83	68	24.46	278
4	114	41.00	79	28.41	5	1.79	29	10.43	21	7.55	278

Source: Fieldwork, 2018

From the above table, 1 represents that productive input of labour has improved because of industrialization, 2 represents that raw material use in production of modern goods has improved, 3 represents that capital was available everywhere even on the internet due to industrialization and 4 represents that domestic consumption was encouraged because of industrialization.

Table 4.2: Mean of Improve productive Inputs

Variables	5	4	3	2	1	FX	N	Mean	X-Ẋ	$(X-\dot{X})^2$	Sectoral Mean	Sectoral SD
Labour	101	89	11	21	56	278	992	3.56	0.01	0.0001		
Raw material	118	77	5	19	59	278	1010	3.63	0.08	0.0064		
Capital	122	59	10	19	68	278	972	3.49	-0.06	0.0036	3.55	0.011
Domestic Consumption	114	79	5	29	21	278	980	3.52	-0.03	0.0009		

Source: Author's Computation

The table above also explains the acceptability of the variables used in the analysis: productive input of labour has improved because of industrialization, raw material use in production of modern goods has improved, capital was available in the bank due to industrialization and domestic consumption was encouraged because of industrialization and the analysis confirmed this, implying that at a mean value of 3.55 and a standard deviation of 0.011 signify that improved productive input is unique since the sectoroal mean is more than average and also all the mean are within the acceptable level.

Tables 4.3: Assessing Entrepreneurship Development

Items	SA	%	A	%	U	%	DA	%	SDA	%	Total
1	110	39.56	99	35.61	2	0.71	17	6.11	50	17.98	278
2	111	39.92	101	36.33	3	1.07	17	6.11	46	16.54	278
3	107	38.48	74	26.62	10	3.59	19	6.83	68	24.46	278
4	98	35.25	125	44.96	5	1.79	29	10.43	21	7.55	278

Source: Fieldwork, 2019

From the above table, 1 represents that SMEs used to create their product by adding values, 2 represents that SMEs created value of the product, 3 represents that SMEs assumed greater level of risk in business and 4 SMEs finance productivity new business opportunities in North Central, Nigeria.

Table 4.4 Mean of Entrepreneurship Development

Variables	5	4	3	2	1	FX	N	Mean	X-Ẋ	$(X-\dot{X})^2$	Sectorial Mean	Sectorial SD
1	110	99	2	17	50	278	1036	3.72	0.01	0.0001		
2	111	101	3	17	46	278	1048	3.76	0.05	0.0025		
3	107	74	10	19	68	278	967	3.47	-0.24	0.0576	3.71	0.0926
4	98	125	5	29	21	278	1084	3.89	0.18	0.0324		

Author's Computation

The table above also explains the acceptability of the variables used in the analysis: SMEs used to create their product by adding values, SMEs created value of the product, SMEs assumed greater level of risk in business and SMEs finance productivity new business opportunities in North Central, Nigeria and the analysis confirmed this, implying that at a mean value of 3.55 and a standard deviation of 0.011 signify that entrepreneurship development is unique since the sectorial mean is more than average and also all the mean are within the acceptable level.

Table 4.5: Regression Result

Dependent Variable: PRII
Included observations: 278

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.216661	0.011393	0.849288	0.0000
ED	0.314238	0.314259	1.311290	0.0000
R-squared	0.774831	Mean dependent var		1.189655
Adjusted R-squared	0.674611	S.D. dependent var		1.224519
S.E. of regression	0.212915	Akaike info criterion		0.119214
Sum squared resid	10.29858	Schwarz criterion		0.163492
Log likelihood	0.656790	Hannan-Quinn criter.		0.036842
F-statistic	1241.155	Durbin-Watson stat		1.311372
Prob(F-statistic)	0.000000			

Decision Rule 5% level of significance; Source: Data output using E-view, 2019

From the regression result, entrepreneurship development coefficient is positive and significant in achieving improved productive input in North Central, Nigeria. The p-value of 0.00 is less than the t-statistic value of 1.31 and the standard error value of 0.31 is less than the t-statistic value. This implies that there is a significant relationship between improve productive input of industrialization and entrepreneurship development in North Central, Nigeria.

From the analysis, the study found that there is significant relationship between industrialization in the form of improved productive input and entrepreneurship development using SMEs in North Central Zone, Nigeria. This implies that industrialization in the form of improved productive input contributed significantly to entrepreneurship development in North Central Nigeria among SMEs owners. The study is in line with the study of Jackin (2004) who found that industrialization significantly led to entrepreneurship development. The study is also in tandem with simple industrialization theory which states that output is produced both by skilled and unskilled labour. And industrialization is a sure ground for economic growth that ensure entrepreneurship development in making them to produced productive with new features and quality.

5. Conclusions and Recommendations

The study concludes that there is significant relationship between industrialization in the form of improved productive input and entrepreneurship development using SMEs in North Central Zone, Nigeria. This implies that industrialization in the form of improved productive input has contributed significantly to entrepreneurship development in North Central Nigeria among SMEs owners. The study recommends that North Central, Nigerians should begin to embrace industrialization and the practices of industrialization should be properly encouraged to ensure entrepreneurship development. Government should ensure that every member of the society is productive by providing them with productive inputs as well as encourage domestic consumptions and use of made-in-Nigeria goods.

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