

Research And Business Innovation For Sustainable Development: Prospects And Challenges For Today's Intellectuals

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Abstract

The study investigated the role of research and business in enhancing sustainable development by making brief comparison between G7 industrialized countries versus Nigeria and South Africa. Four objectives were stated to guide the study. In pursuance of the objectives, data were collected via secondary source. Specifically, the Secondary Data on the steps of the Research Process is got from Asika. The Secondary Data on Some Business Problems is got from Enikanselu, Ojodu, and Oyande,. The Secondary Data on the Structure of Output for the Group of 2 Industrialized Countries compared with South Africa and Nigeria is got from Ibadode . Among others, the findings reveal that South Africa outperformed the G7 industrialized countries in structure of output 2 out of 5 times, and equal them in one. Among others, it was recommended that backed by national policy, the intellectuals in the Developing countries as strategic managers, administrators and economic policy makers should use the five stages of research process to solve typical business problems and then strive to equal or outperform the G7 countries in structure of output.

Keywords: Sustainable Development, Industrialize, Research, Business Innovation.

INTRODUCTION

.A business is a venture that has the objective of making profit (Drucker, 2000). The profit motive implies that a business enterprise will thrive to breakeven and exceed the breakeven point in both physical and monetary units. Profitability is the positive difference between total revenue and total cost. If the difference is negative, it is called a loss. At breakeven, total revenue is equal to total cost.

If a business enterprise is to survive and grow business innovation becomes very necessary. Drucker (2005) observe that innovation is a function of entrepreneurship. Entrepreneurship is one of the four factors of production. The three others are land, labour and capital. Entrepreneurship involves creating new business ventures and bearing their risks.

Business innovation is a type of management function. The other five functions of management are planning, organizing, staffing, leading and controlling (Koontz, O'donnel and Weihrich, 2000). Innovation is could be in form of the production of new and better product. It also entails charging lower prices for the products to achieve market penetration. It may also entail rendering after sales services so as to retain existing customers and attracting new ones

In this paper, the independent variables are Business Innovation and Research. Research means to search again. It means to take a cursory look at a phenomenon of interest. The aim of doing a Research work is to provide an answer to a research problem, formulating hypothesis, identifying the independent and dependent variables, collecting, analyzing, interpreting data, summarizing the major findings, concluding, recommending and writing the report (Unyimadu, 2005). Besides, the dependent variable is Sustainable Development which is the increase in the Socio-Economic of a society from a lower to a higher stage.

Sustainable Development is the process of satisfying the needs of the present generation without jeopardizing the needs of the future generations (Jhingan, 2008).

Economic Development goes beyond Economic Growth. Economic Development goes beyond Economic Growth in that it incorporates the distribution of the proceeds from the growth and the Economic Changes in the standard of living of the people and also improvement in Societal Welfare. This is reflected in the improvement in the techniques used in Production, Poverty Alleviation, and Improvement in the provision of infrastructural facilities such as Housing, Roads, Electricity Supply, Airport, Railways and improved transportation facilities (Anyanwu and Oaikhenan, 2000). An improvement in Sustainable Development will show by the ability of the country to cope with the numerous development challenges to ensure future bright prospects for the citizens.

1.2 Objectives of the Study

The objectives of the study are to:

- 1) Determine the stages of the Research Process.
- 2) Identify some Business Problems.

- 3) Analyze the structure of output for the Group of 7 Industrialized countries compared with South Africa and Nigeria.
- 4) Modify the System's Cybernetic Model of the Transform of the Process of Research and Business Innovation

2 Review of Related Literature

Research is the process of finding out the solution to a problem. It is a clear activity with the purpose that its result will contribute to, or constitute the solution to a real problem. Research methods are the design, techniques are procedures used in carrying out a research work

In this paper, both research and business innovation is seen as the second function of the entrepreneurship. Entrepreneurship is the act of creating new enterprises. Innovation is defined as the provision of better economic goods and services it is not enough for the business enterprise to provide just any economic goods and services. It must provide better and more economic goods and services, it is not necessary for a business enterprise to grow bigger but it is necessary that it constantly grows better. A business enterprise is a venture that is set up to make profit. Profit is the positive difference between total revenue and total cost. A business enterprise breaks even at the point where total revenue equals total cost. Breaks even points could be in booth physical units and in monetary units. Beyond the breakeven point the business enterprise will begin to make profit. Profitability is an important factor of performance. Performance is the extent to which a business enterprise is able to achieve the organizational goals and objectives. Goals are long term aims while objectives are short terms aims at a point in a business enterprises mission.

Business innovation can be defined as the process of ensuring the provision of better goods and services. A very important aspect of business innovation is management innovation.

2.1 Conceptual Clarification

Before we proceed, we must attempt to clearly differentiate between the concept of Research Methods and the concept of Research Methodology. This distinction has become necessary in view of the fact that there is an apparent confusion and controversies in the academic circle, particularly in Nigeria, in the Research nomenclature. The various institutions of higher learning in Nigeria have designated this compulsory course, as either Business Research Methods or Research Seminar or Research Methodology. For the purpose of clarity in the name of this popular course, the various names or titles used are defined and the correct name is recommended (Asika, 2004).

2.2 Business Research Methods

The methods of conducting research are called Research Methods. Various experts in research have recognized three such methods by their different titles. They are:

- a) (1) Descriptive Research Method.
(2) Causal Research Method.
(3) Exploratory Research Method.
Or
- b) (1) Survey Research Method
(2) Experimental Research Method.
(3) Ex-Post Facto Research Method ,(Unyimadu, 2005)).

Note that, to all intents and purposes,

- i) Survey Research is synonymous with Descriptive Research.
- ii) Experimental research is synonymous with Casual Research.
- iii) Ex-Post Facto Research is also synonymous with Exploratory Research.

All these are Research Methods either for Business Administration or for any other area in the disciplines of Management and Social Sciences (Asika, 2004).

2.3 Research Methodology

In discussing and perhaps defining the subject of Research Methodology we must recognize the suffix – OLOGY which is a Greek word, which means the scientific study of something. The prefix theo means concerning GOD. Hence, Theology therefore, means the scientific study of the knowledge concerning God. People trained in the scientific study of knowledge of God are called Theologians (Enikanselu, Ojodu and Oyende, 2009).

Also, Biology is the scientific study of Living things where Bio means Living things. By the same reasoning, Methodology means the scientific study of methods. Consequently, Research Methodology means the scientific study of the Methods of Research in any discipline whatsoever (Asika, 2004).

It is also clear that Research Methods is subsumed under the course Research Methodology. Indeed, Research Methods is a member of the group of scientific study of methods of Research. These are the correct positions of Research Methods and Research Methodology as a course of study and it is also our position in this paper (Asika, 2004).

2.4 Research Seminar

It has also been observed that in some higher institutions in Nigeria, Research Seminar is used as the name of the course, Research Methodology. There is an obvious problem in this nomenclature. Seminar is not the name of a course but the method of teaching a course or subject. The title Research Seminar is a method of delivering lectures in Research Methodology using a seminar style. In a seminar style of course delivery, various topics of a subject / course are assigned to different lecturers bearing in mind their areas of academic interests, expertise and competence. The point is made here that Research Seminar is a method of delivering lectures on the different topics in Research Methodology. Therefore, it is no substitute for the nomenclature of Research Methodology (Unyimadu, 2005).

2.5 What Do We Mean By Development?

Because the term development may mean different things to different people, it is important that we have some working definition or core perspective on its meaning. Without such a perspective and some agreed measurement criteria, we would be unable to determine which country was actually developing and which was not (Todaro and Smith, 2006).

2.5.1 Traditional Economic Measures

In strictly economic terms, development has traditionally meant the capacity of a national economy, whose initial economic condition has been more or less static for a long time, to generate and sustain an annual increase in its gross national income (GNI) at rates of 5% to 7% or more. A common alternative economic index of development has been the use of rates of growth of income per capita to take into account the ability of a nation to expand its output at a rate faster than the growth rate of its population. Levels and rates of growth of real per capita GNI (monetary growth of GNI per capita minus the rate of inflation) are normally used to measure the overall economic well-being of a population – how much of real goods and services is available to the average citizen for consumption and investment (Anyanwu and Oaikhenan, 2000).

2.5.2 The New Economic View of Development

The experience of the 1950s and 1960s, when many developing nations did reach their economic growth targets but the levels of living of the masses of people remained for the most part unchanged, signaled that something was very wrong with this narrow definition of development. An increasing number of economists and policymakers clamored for more direct attacks on widespread absolute poverty, increasingly inequitable income distributions, and rising unemployment. In short, during the 1970s economic development came to be redefined in terms of the reduction or elimination of poverty, inequality, and unemployment within the context of a growing economy. Redistribution from growth became a common slogan (Iyoha, 2006).

But the phenomenon of development or the existence of a chronic state underdevelopment is not merely a question of economics or even one of quantitative measurement of incomes, employment, and inequality. Underdevelopment is a real fact of life for more than 3 billion people in the world – a state of mind as much as a state of national poverty. Development must therefore be conceived of as a multidimensional process involving major changes in social structures, popular attitudes, and national institutions, as well as the acceleration of economic growth, the reduction of inequality, and the eradication of poverty. Development, in its essence, must represent the whole gamut of change by which an entire social system, tuned to the diverse basic needs and desires of individuals and social groups within that system, moves away from a condition of life widely perceived as unsatisfactory toward a situation or condition of life regarded as materially and spiritually better. No one has identified the human goals of economic development as much as Amartya Sen, perhaps the leading thinker on the meaning of development (Todaro and Smith, 2006).

A model is a representation of reality or an abstraction of reality but not reality itself. Not all the factors or variables in the real system are included in the model to enable the model to be possible to be analyzed, solved and implemented (Taha, 2008). The Leontief's Model that is applicable to all systems has three Elements namely Inputs, Transform and Output. However, the System's Cybernetic Model has two more Elements than those in the Leontief's System namely Feedback and Control. Feedback is the Information from the Inputs to the Transform and Output and Control to know how the system is doing. If it is doing well, continuation will follow; but if it is not doing well, corrective action will be necessary (Nwachukwu, 2000). Control is a System's Element that would entail the setting of target, evaluating of performance, appraising, segregating controllable and

uncontrollable variables, doing variance analysis and continuing if things are okay and corrective action if things are not okay.

The Inputs of the System's Cybernetic System are eight in number namely men, materials, money, time, energy, knowledge, information and infrastructure. By men is meant the human resource. It includes women. It is the labour force that has the skills, competencies and abilities to work (Adebayo, 2008).

Materials are the parts, sub-assemblies, semi-finished goods, inventory, stock and finished goods that go into the production process (Banjoko, 2006). By money is meant both the fixed capital and the circulating capital which is required to procure both fixed and current assets, pay salaries to workers, pay contractors, suppliers, and other external stakeholders, procure raw materials, buy equipment and provide other fixed assets, pay taxes and incur any other expenditure to keep the organization going (Osaze and Anao, 2000). Time is a non renewable resource with the capacity of 60 seconds per minute, 60 minutes per and 24 hours per day (Banjoko, 2006).

Energy is the work done per unit time and if work is measured in joules, and time is seconds, energy is measured in watts (Banjoko, 2006). Knowledge is the ability to understand the phenomena around a person due to the person's level of education, training and development and socialization (Adebayo, 2006). Information is the processed data which is the output of the data processing, and electronic system which is useful for managerial decision making (O'brien, 2000). Infrastructure is the totality of such facilities like water supply, roads, electricity, railways, airports etc.

3. Methodology

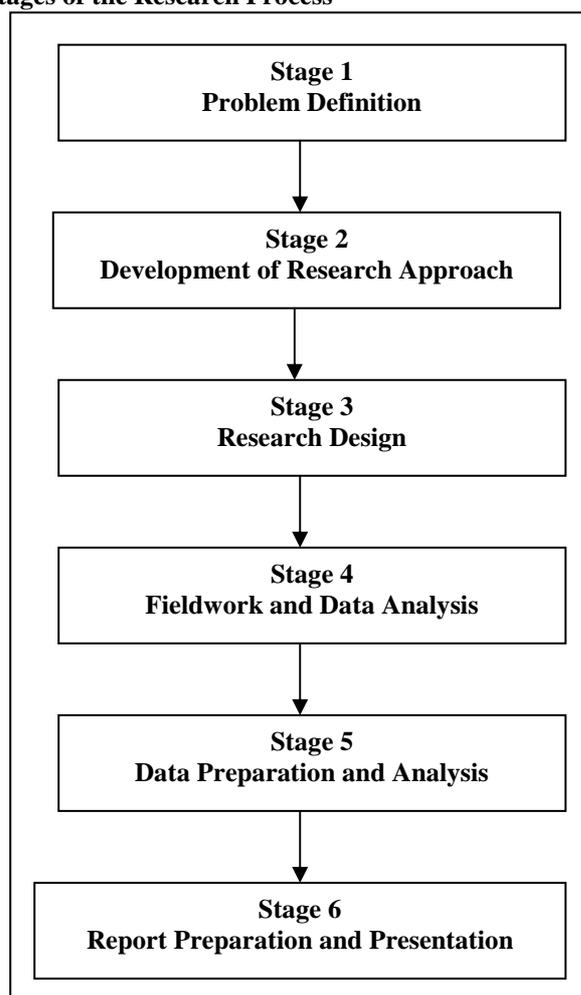
The Research Design chosen in the study is a combination of the use of Secondary Data, Content Analysis and Model Modification. The Secondary Data on the steps of the Research Process is got from Asika (2004). The Secondary Data on Some Business Problems is got from Enikanselu et al (2009). The Secondary Data on the Structure of Output for the Group of 2 Industrialized Countries compared with South Africa and Nigeria is got from Ibadode (2006). All the Secondary data instruments are reliable as their sources are properly published by renowned Authors.

Yomere and Agbonifoh (2000) have observed that it is at the analysis stage of a Research Project that meaning is given to the Data that has been collected. If the Data is not properly analyzed, it will not be possible to discuss the findings let alone to summarize the major findings, conclusion and make recommendations. A System's Cybernetic Model is to be modified of the Transform of Sustainable Development.

4 Data Analysis and Model Solution

Figure 1 shows the stages of the Research Process.

Figure 1 : The stages of the Research Process



Source: Asika, N.C. (2004). *Research Methodology: A Process Approach*. Shomolu, Lagos: Mukugamu and Brothers Enterprises, page 2.

From figure 1 it is shown that there are six stages namely Problem definition, Development of Research Approach, Research Design, Fieldwork and Data Collection, Data Preparation and Analysis and Report Preparation and Presentation.

Table 1 shows some Typical Business Problems.

Table 1 Some Typical Business Problems

- 1) A high level of Labour Turnover,
- 2) A reduction in Sales Turnover,
- 3) A reduction in profits
- 4) Deteriorating Working Capital
- 5) Low quality of Finished Products
- 6) High Debt Ratio
- 7) Increase in Work Place Injury

Source: Enikanselu, S.A., Ojodu, M.O., and Oyende, A.I. (2009). *Management and Business Research Seminar*. Sabo-Yaba, Lagos: Enykon Consults, Page 47.

From Table 1, it is shown that Some Typical Business Problems are 7 in number starting from A high level of Labour Turnover, a reduction in Sales Turnover to Increase in work Place Injury.

Table 2 shows the Structure of Output for the Group of 7 Industrialised Countries compared to South Africa and Nigeria.

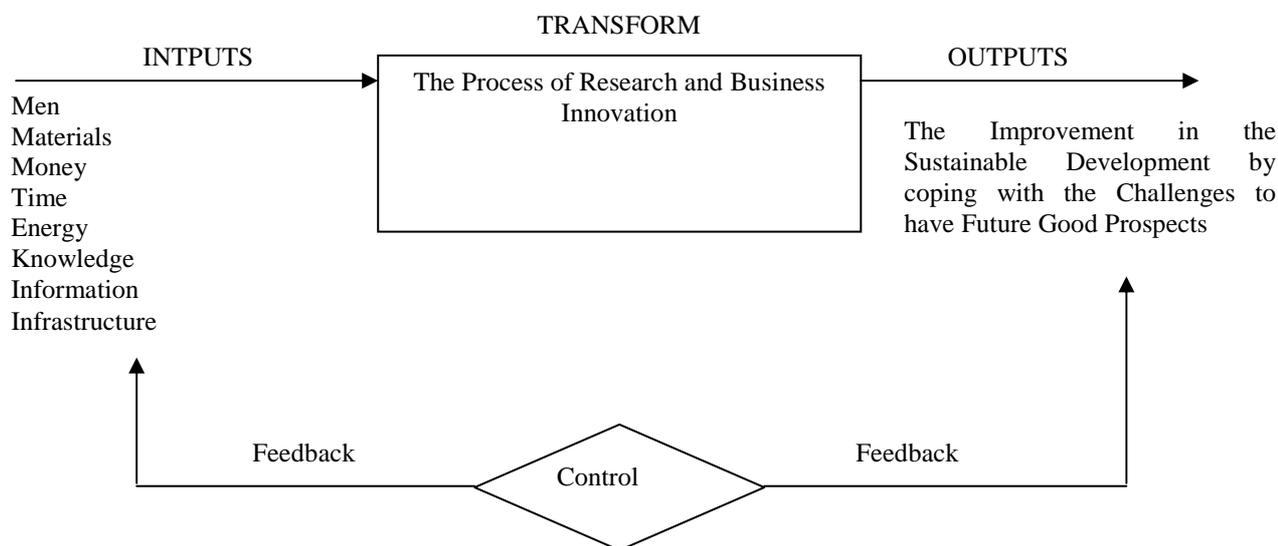
Country	GDP (2003) \$ million	% of GDP			
		Agriculture	Industry (excluding manufacturing)	Manufacturing	Services
Canada	856,523	3	15	17	65
France	1,757,613	3	6	18	73
Germany	2,403,160	1	6	23	70
Italy	1,468,314	3	8	20	69
Japan	4,300,858	1	9	21	69
U.K	1,794,8781	1	10	17	72
U.S	10,748,547	2	8	15	75
Mean	3,361,413	2	9	19	70
South Africa	159,886	4	12	19	65
Nigeria	58,390	26	45	4	24

Source: Ibadode, A.O.A (2006). “The Instrumentality of Manufacturing in translating Poverty to Prosperity”, *Inaugural Lecture*, series 82, University of Benin, May 18, page 5.

From Table 2, it is shown that the mean of the 7 Industrialized countries is lower in % contributions of Agriculture or Industry (excluding manufacturing) to GDP than those of South Africa and Nigeria and same as South Africa in % contribution of Manufacturing to GDP and more than them in GDP, % contribution of service to GDP.

Figure 2 shows the System’s Cybernetic Model of the Transform of the Process of Research and Business Innovation.

Figure 2 The System’s Cybernetic Model of the Transform of the Process of Research and Business Innovation.



Source: Adapted from O’Brien, J.A. (2008). *An Introduction to Computers in Business Management*. Homewood, Illinois: Richard Irwin, Page 10.

From figure 2, it is shown that the System’s Cybernetic Model has five elements namely inputs: Men, Materials, Money, Time, Energy, Knowledge, Information and Infrastructure; Transform of the Process of Research and Business Innovation; Output of the Improvement in the Sustainable Development by coping with challenges to have future good prospects. 5

5 FINDINGS

The findings reveal that:

- a) The stages of the Business Process were six in number starting in Problem Definition and ending in Report Preparation and Presentation.
- b) Some Typical Business Problems were given as 7 in number starting with a reduction in Labour Turnover and ending with an Increase in Work Place Injury.
- c) South Africa outperformed the G7 Industrialized countries in Structure of Output 2 out of 5 times, equaled them one.
- d) The System's Cybernetic Model has five elements namely Inputs, Transform, Output, Feedback and controls.

6 CONCLUSION

The finding that the first out of 6 stages of the Research Process was Problem Identification implied that this stage was the starting and important stage. The finding that the first typical Business Problem was a high level of labour Turnover implied that when many workers are leaving a Business Organization meant that they were very much dissatisfied. The finding that South Africa outperformed Nigeria by bracketing once with the mean of the G7 countries implied that South Africa was an emerging economy while Nigeria was not. The finding that the System's Cybernetic Model had five elements two of which namely control and Feedback implied that it was more sophisticated than the Leontief's model.

7 RECOMMENDATIONS

It is recommended that backed by National Policies, the Intellectuals in the Developing Countries as Strategic Managers, Administrators, Economic Planners and Economic Policy Makers should use the five stages of the Research Process to solve typical business problems, ensure equaling or outperformed the G7 countries in structure of output and use the System's Cybernetic Model of the Transform of the Process of Research and Business Innovation to improve the Sustainable Development of their countries by coping with the numerous challenges to ensure the future good prospects of their economies.

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