

GEARING SMALL SCALE INDUSTRIES TOWARDS GREATER CONTRIBUTION FOR NIGERIA'S INDUSTRIAL DEVELOPMENT

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Abstract

This paper highlights how small scale industries could accelerate growth and development of industrial sector in Nigeria. The paper previews in brief the pattern of industrial development in Nigeria. It discusses the problems facing small scale industries in Nigeria and stresses the roles to be played by institutions in improving technology acquisition. The paper also recommends that clear industrial policies should be developed to improve this sector of the economy.

Introduction

Some countries in the world are highly industrialized; others are on the verge of becoming industrialized, while some are just beginning to lay the basics and fundamental infrastructural facilities for industrial base. Countries of Western Europe, North America and Japan can be considered as highly industrialized, while others such as China, South-East Asia and Eastern Europe are becoming increasingly industrialized. Other areas such as Latin America, Middle East and Africa are busy laying the infrastructural details necessary to enable them achieve higher industrial growth and development.

Technologically, Nigeria's pattern of growth and development seemed to differ from the Western Europe and the industrialized countries where there are five to six technicians, to one engineer. In the Nigerian situation, the engineer does not have more than one or two technicians to work with. The situation is worsened by the lack of respect for manual skills and technical manpower as well as overall industrial growth and development in the country.

While engineers in developed industrialized countries have more technicians to work with and do not handle highly responsible jobs immediately until after they gain experience in the job. Within Nigerian context quite often graduate engineers acquire responsibilities at an earlier age, particularly those working in the public sector, who a times may be required to be competent or knowledgeable in a wide variety of specialties; and be expected to comment on the work of consulting engineers or specialists in some areas.

In some respects it makes our engineers and technologists more responsible, but in others it loads them with so much responsibility that they may have less or little time for thinking of development or research and such alike.

An Overview of Industrialization Effort in Nigeria

The task for growth and development of industries are quite enormous and are based on the level of infrastructures available for development such as good roads; electricity and water supplies; transportation system; telephone and other communication system.

In Africa four countries seem to have the potentials for developing rapid industrial base. These are Egypt in North Africa; Kenya in East Africa; South Africa for the Southern African region, and Nigeria for the West African sub-region. Each of these countries has started in sporadic industrial pattern with textile and food and drink industries; some pharmaceuticals and chemical industries, petroleum in Nigeria and hard mineral such as gold and diamond in South Africa. Egypt has vast cotton plantation while Kenya has tea and coffee plantation; of course there are many other smaller industries that these basic ones have assisted to give rise to.

Nigeria in particular, which is the subject of this paper, has taken some strides toward laying the basic infrastructure for petroleum industry including some refineries located at Port-Harcourt, Warri and Kaduna, with some pipeline for crude as well as refined products, it has started construction of an Iron and steel mill at Ajaokuta, with iron reduction plants at Oshogbo, Jos and Katsina, it has a number of textile mills located in Lagos, Aba, Kaduna, Kano, Funtua and Gusau to mill and weave into cloth the vast cotton growth in the dry savannah areas of the country. It has a number of hides and

skins tanneries especially in Kano for preparation of the hides and skins for the export market. There are a number of construction related industries such as block-making and burnt bricks industries in scattered location such as Ibadan, Minna, Jos', Kaduna, Maiduguri, Funtua and kano (Baguada) with others to produce doors and window frames; roofing Materials; ceramic materials for bathrooms, carpets, household furniture and such alike.

Nigeria's industrial growth is now moving towards petro-chemical industries, with the refineries producing some chemical by-products that could serve as inputs for plastic industries such as plastic shoes; tyres; plastic containers, polythelene bags and jars for drugs and cosmetic products. Efforts are also geared towards the development of small and medium sized industries with a number of institutions emphasizing loans and advances to these sectors. These include commercial banks; people' bank; national fund for reconstruction (NERFUND); National directorate for employment (NDE) state - small industries credit scheme among others. This is based on the emphasis that small scale and medium sized industries serve as the catalyst for industrial growth through providing some of the basic inputs required by large scale industries that can provide products such as brake clutch- system; the mirrors and glasses; the upholstery and seatings; the tyres and tubes; plugs and wires; ignition system and batteries etc. for use in the automobile industries.

Problems with Small and Medium Sized Industries

In various studies undertaken to identify some of the management problems with small scale enterprises, various writers including Isiaka Olawole (1994), have identified problems such as high employee turnover, low productivity, high incidence of absenteeism and tiredness; increased number of defective items produced; high level of material waste or scrap and increased frequencies and gripes as some of the factors militating against the development of small and medium scale enterprises in the country.

Other vices and problems include the fact that some commercial banks who by CRN's guidelines are supposed to grant certain proportions of their loans and advances to the small and medium sized enterprise either in an effort to meet the target, or out of pure skimming grant these loans and advances to the directors or senior officials of the bank or some other ranking public officials, at the expense of the small and medium sized industries and enterprises themselves.

Probably, another problem with the small and medium scale enterprises and industries is their inability to appreciate that their success depends very much on how far they are able to satisfy their customer' needs and desires. Flow adequate are their products in both quality and quantity; whether they meet their deliveries on time, whether the price charged is right and whether they make any concerted effort to meet their consumers or not, whether their owners have the natural attributes to direct, to lead or to inspire others towards putting in their best.

A substantial number of these enterprises fail short in many ways on these questions; many of them operate on the philosophy that once they produce, the market is there. They do not have adequate record keeping to fall back on, while their cash transactions are hardly recorded, and atimes not recorded correctly.

- These problems and a multitude of others not mentioned make the small and medium scale industries and enterprises not able to contribute more adequately towards the overall growth and development of the Nigerian economy.

At one time the centre for management development which is an arm of the Federal Ministry of National Planning has developed a Nigerian Association of Small Scale Industrialists (NASSI) with a view of providing as avenue for the operators of these small-scale industries to meet and exchange ideas, discuss common problems with a view to identifying possible solutions. However, in recent years, the Association appears lather dormant or inactive.

Need For Co-ordintating Small and Medium Scale Industries' Activities

When one considers that various efforts are undertaken to encourage the growth and development of small and medium scale industries and enterprises one begins to think of the need to co-ordinate these various functions in order to gear them towards the right direction and avoid multiplicity of functions and duplications. Financing small and medium scale industries and enterprises is undertaken by the CBN directing World Bank Assistance through some commercial

banks; other commercial banks not in the project operate their own scheme; the National Directorate of Employment (NDE) operates its own urban employment scheme; the states operate state small industries credit scheme, given out loans to small and medium scale entrepreneurs and industrialists.

The multiplicity of these institutions each centering on small and medium scale industries and enterprises may give rise to a number of duplications, while if each concentrates on particular aspects there may be a better total coverage of the industries and beneficiaries might benefit all the more. This calls for an umbrella organization that could oversee the various institutions specializing in granting of credit facilities to the small and medium sized enterprises and industries with a view to streamlining the activities of each institution in a particular area it wants to emphasize.

Effective and Preventive Maintenance

One of the major factors affecting most industries in this country especially where a lot of machineries are involved is effective maintenance and procurement of spare parts; lots of times equipment could not operate or have broken down because of lack of one or two spare parts which are vital towards its operations. To this end, one will like to recommend to the management of the plants and industries that they must do everything possible to ensure that there is effective maintenance and that maintenance culture is evolved to ensure that maintenance is undertaken as routine to prevent any occurrence of break down of equipment in industry. Industries should liaise with the appropriate training institutions to run specialized courses to ensure adequate manpower are produced that can operate the industrial system effectively and efficiently. One or two industries are known to be, operative maintenance such as Katsina Steel Rolling Company; industries should take a lead from such industries and ensure that they incorporate preventive maintenance within their schedule.

Local Technologies Around

In terms of Local technologies, there are quite a variety of local technologies around, many of them traditional technologies which were inherited from father - to son, while others are technologies that have been adapted from Western concepts and products.

The traditional technologies include cloth dyeing; pottery and pot making; mat weaving; art making such as ear-rings and bangles typified by Bida crafts and many others. These traditional crafts can produce durable products and more or less use similar mechanism as the western modernized systems. The only difference is that they are much smaller in scale and usually are one-man business atimes with some apprentices to assist. The important of these arts and crafts is that they provides the concept of the technology and all that is required is to produce them on bigger scales or made more mechanical to reduce the amount of human labour involved; in fact some small scale industries are taking these crafts and developing them on a more modern concept utilizing the traditional technology but now producing more operations at the same time, such as having more looms to weave cloth, making the looms bigger, using wooden frames unlike the twigs often used in traditional type looms. And example of these were set up in Minjibir and one or two other districts in Kano State during the 1960s to produce woven cloth of varied colours for curtains and uniforms at competitive prices. Likewise traditional pottery skills are utilized on modern kilns and rottery plates to produce cups, jugs, dishes etc at the famous Abuja pottery operated by Ladi Kwali and others.

Some few Nigerian are venturing to improve on these skills. For instance, the famous "Adire" cloth in the Western part of Nigeria is locally woven in varied colours and spots using local dyes and techniques. These are also, commonly done in Sokoto area and some other locations all over the country. They are complemented by Okene cloth which is woven in many attractive colours and is commonly used in the areas as bed-sheet or rapper cloth.

In modern times the advent of things like television and satellite disk to receive broadcast from the satellite stations have thrown some challenges to our young technologists and inventors though unrecognized. Quite a few of them realize that the television set requires an antenna of aerial to function and atimes these are costly. They have come up with a cheaper device which only involves a long standing stick or iron rod plus a florescent tube with a cable to connect the tube to the set. That works most of the time and the owner of the television set gets a beautiful reception.

In fact an ingenious fellow has development a local device which when connected to the TV set can receive satellite receptions especially, if the area has a number of satellite dishes nearby.

Institutional Bases to Improve on Technology Acquisition

Both Nigerian universities and the government have identified the need for increasing the strides toward improving steps that could enhance Nigeria's efforts towards acquiring the necessary skills and technical expertise required by industry to boost (the country's industrial growth and development. Nigerian universities have been setting up Faculties of Technology in addition to those of Engineering to enable them produce fresh graduates in both traditional engineering fields as well as newer areas such as mass communication experts, petroleum engineers, and geologists; nuclear physicists and such alike. The government has set up universities of technologies to concentrate on courses and subjects that are having some bearing on technological development of the country. This is in addition to a number of polytechnics and technical colleges scattered all over the country aimed at producing the technical manpower necessary to keep the industrial wheel of the country moving. In addition, most of the polytechnics and universities insist on industrial attachments for their students to enable them gain practical experience and relate what they learn in theory to what is obtained in practice.

Inventions and Innovations within the Institutions

Also one finds within Nigerian institutions especially those technically biased such as (the polytechnics and well established universities such as Ibadan, Lagos, Ahmadu Bello and University of Nigeria at Nsukka, quite a variety of new inventions and/or innovations of equipment that could serve as labour saving devices. For example, the department of electrical engineering at Kaduna polytechnic has developed a traffic control light system which could serve a three-road inter-section. 'Flic gadget has been installed at one of the roads within the institution. Similarly, it has developed a local cordless microphone. Even though one can say that these technologies are already abundant in the market, the ones developed - only serve as versions of existing technologies.

Other researchers have come up with a water mobile boat developed at Kwara Polytechnic. Where they married the concept of bicycle to a boat whereby, the peddler of the canoe sits and paddles like he does on a bicycle and as he paddles the canoe moves forward.

There are many researches, products and proto-types within the old established universities and polytechnics, like, Yaba College of Technology, Ibadan Polytechnic, Auchi and Calabar Polytechnics. On similar lines, there were many researches undertaken by industrial development centres located in different states around the country who have produced, simple machines that could be used by small-scale entrepreneurs for better performance as (they are more adaptable to our local conditions and environment. Other research institutes, like. Federal Institute for Industrial Research (FIIR) and Product Development Agency (PRODA) have also done extensive work in *terms of* development of new products and-simplification of existing processes towards industrialization, there are many proto-types that have been developed by these institutes.

What these proto-types need are some form of effort to commercialize their products whereby, some industries can produce them on massive scale and market them in the country and abroad.

Developing Clear industrial Policies

There is need for clear industrial policies that should emphasize both large scale industrial development as well as the development of small-scale industries that could serve to provide some of the inputs such as parts and packaging materials and labels to industries around or that could serve as consumers of finished products from bigger industries, such as bread and cake making for the flour industry or shirts and garments tailoring and manufactures for the textiles industry. Such clear linkages could assist in the development of the small-scale industries, so as to make them relevant, and synchronized within the overall development process of the nation. Even if, we have an industrial policy, it has to keep abreast with the realities of the situation, adapt to structural changes within the economy as well as globally.

While the highly industrialized nations are gearing more toward service-based economy with more efficient industrial base; developing countries like Nigeria needs to undertake more strides toward establishing and industrial base, rooted in the growth of large industrial supported by small and medium scale and enterprises which could provide more employment and the necessary linkages in terms of utilizing the product from the large scale industries, such as plastic industries, tyre industries and some pharmaceutical industries to make use of by-products from the petrochemical industries or doors and windows frames; cars and motorcycle body frames; iron rods, bars and wires to make use of products from the iron and steel mills etc.

It is necessary for the growth of an industrial base from which Potential industries could easily growth and serve not only the home market but the export market which in turn could be given positives assistance to grow and exploit their potential. We have seen many countries protecting the infant industries especially in Asia and Japan, where industries identified to be growing industries that are important to the export market offered the necessary protection while they grow. It is necessary to emphasize protection of our infant industries and gear them towards exports with a view to providing their own needs for raw material imports as well as contribution to the coffers of the nation in foreign exchange.

Recommendations

The following suggestions are proffered to boost the industrial sector of the economy.

- i. The government should exert effort to create a conclusive and enabling environment for the emergence "of indigenous industries to more the economy forward by altercating both indigenous investors.
- ii. Government industrial incentives should be directed toward reducing investment and transaction costs in the provision of adequate infrastructural facilities and soft loan for proper and effective industrial development.
- iii. Funds for development finance should be made available and adequate through organized institutions for easy access to the entrepreneurs.
- iv. Government established institutions that encourage and influence business function such as business incubation centres, industrial development centres and the like should be re-organized and empowered to promote real growth of Nigerian Industrial sector.
- v. Entrepreneurs should be encouraged to enter into partnership to eliminate the problem of under capitalization and inadequate finance and gain more technical expertise through synergy in order to sustain the survival and growth of their business
- vi. Similarly, entrepreneurs should form and enter into joint venture agreement, resource sharing and out sourcing, merger of different types and forms, franchising, collaborative research and development , transfer of technology etc. to foster, economic and technological growth.
- vii. The government should permit and encourage export of locally manufactured products, licensing, turn-key-projects, management contract, build-operate and transfer project in an attempt to benefit from advanced technology of developed economy.
- viii. Finally, Government through higher institutions of learning and research institutes should devote more time and resources for research and development.

Conclusion

This paper has discussed numerous problems associated with small, medium and large industries in the country including high employee turnover, high level of material waste and lack of adequate management knowledge and expertise by the operations of small and medium scale industries, lack of adequate training and employee moral boosting by the large scale industries and such alike.

The paper has discussed some of the potentials for new products developed by our technical institutions which need to be commercialized to realized their value and exploit their potentials.

It has developed the need for co-ordinating the activities of the various institutions that are concerned and responsible for granting of financial credit or other assistance towards the growth of small and medium scale enterprise with a view of making them more functional and geared towards the overall growth and development of the nation.

It emphasized the need for an effective maintenance culture that will inculcate the idea of having routing maintenance as part of the overall organizational efforts towards ensuring a smooth industrial system.

This paper finally emphasizes that development and growth of the nation is very much synonymous with industrial growth and development. A!! impediments of industrial growth and development therefore, need to be tackled; problems analyzed with a view to finding solutions to them in order to enhance our overall efforts towards industrial growth and its contribution towards overall growth and development of the nation at large, so that Nigeria can be part of the industrialized nations of the world catering for the grater ECOWAS sub-region.

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