



Automotive Parts Industrial Park: A Panacea for Nnewi Automotive Industrial Cluster

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Abstract Having observed that no country will successfully surmount its economic challenges by relying only on natural resources, but rather on commerce, advancement in technology, and manufacturing, the paper advocated for the development of an automotive parts industrial park in Nnewi, Nigeria. Defined as a physical concentration of related or similar businesses and allied institutions, an industrial park is a tract of land earmarked and developed for industrial purposes, and enhancement of economic development. The Nnewi automotive parts industrial park is aimed at bringing supporting automobile parts manufacturing companies together, to deliver support services, vehicle components, and raw materials required by the teeming automobile manufacturing companies in Nigeria. With supporting literature, the paper discussed the concept and need for the industrial park, and also advised that to forestall the risk of failure for the capital intensive project, the Federal Government and the relevant agencies must be fully committed to its success, through the provision of the necessary infrastructures like adequate power supply, very good and reliable modes of transportation, portable water, services, utilities, and other logistics. The need for the incorporation of Science, Technology and Innovation (STI) in the development of the proposed park was recommended, before the numerous benefits and challenges of automotive parts industrial parks were discussed.

Keywords industrial park; manufacturing; Nnewi; Nigeria; automobile parts; competitive advantage; vehicles; science, technology and innovation; Foreign Direct Investment; industrial cluster

1. Introduction

The Nigeria's economy which relied heavily on petroleum as the major source of its income nose-dived, and eventually went into recession in 2016, due to the decline in the international price of crude oil. This is because a nation cannot sustain economic growth and development by depending only on its natural resources, but by technological advancement, commerce and manufacturing.

Obioma, Anyanwu, and Kalu [1], noted that there is a direct correlation between exportation levels and the economic success of a country, as a very few countries have been able to grow and accumulate wealth without investing in their manufacturing industries, and a strong and thriving manufacturing sector usually precipitates industrialization. They explained that by increasingly adding value to products before they are sold, revenues are boosted, thereby raising average earnings per input, as manufacturing sector is more sustainable and less vulnerable to external shocks than mere commodities.

Therefore, to restore the economy on the path of growth once again, the Federal Government of Nigeria decided to diversify the economy. Apart from agriculture, another main area of diversification is manufacturing, as the country's low industrial base is a major problem that has received very little attention and intervention. Hence, the need for industrial parks which will not only generate appreciable employment for the teeming masses, but will also attract direct foreign investments and economic growth.



According to Weldesilassie et al [2], the concept of industrial park can be traced back to the industrial revolution of the 18th century when countries formed industrial areas to facilitate industrialization. They observed that these industrial areas vary depending on their causes of formation, and can be developed into industrial parks.

Also known as trading or industrial estate, an industrial park is a tract of land earmarked and developed for industrial purposes, and enhancement of economic development. Often located away from the city centre, it encourages infrastructure growth and industrialization through the provision of an enabling environment for governments, corporations, universities, investors, and individuals to collaborate, for promotion and transfer of technology. According to Vidova [3], “An industrial park is based on a philosophy of integration of relatively different functions (production function, and that of services, relaxation and education, too) into an industrial area with majority of industrial production and services with high economy turnover and high employment.”

However, Weldesilassie et al [2], stated that the United Nations Industrial Development Organization in 1997 defined industrial parks as “a tract of land developed and subdivided into plots according to a comprehensive plan with or without built-up (advance) factories, sometimes with common facilities and sometimes without them, for the use of a group of industrialists”.

Well-planned industrial parks all over the world contribute immensely to the gross domestic product and economic developments of nations; this is because they are strategic hotbeds for creativity, growth, job creation, and innovation. According to Eugenia and Georgeta [4], with regards to overall development strategy, industrial parks can be a solution for increasing the local competitiveness through its provisions– institutional framework, modern services in administration, financial consultancy, training, technical guidance, information services, shared facilities, research and own infrastructure designed to meet the needs of companies they gather, by providing them with modern services for the business deployment and development. They explained that “a concentration of a variety of activities and services to support the industry can influence investors' decision to switch to such a region.”

Apart from Innoson Vehicle Manufacturing Company, Anambra Motor Manufacturing Company, and Peugeot Automobile of Nigeria, there are many other vehicle manufacturing and assembling plants that are springing up in Nigeria, as a result of the Government’s special intervention in the auto manufacturing sector with the National Automobile Industry Development Plan (NAIDP), conceived by the Federal Ministry of Industry, trade and Investment (FMITI). However, the sector may not achieve the desired goals without the development and establishment of an automotive parts industrial park which will provide the raw materials’ inventories required by the automobile companies, enable the government to concentrate the required infrastructure and facilities in the park thereby act as a vital incentive for the investors, attract foreign investors, and also create new jobs that will eventually decrease the high rate of unemployment in the country.

Ajayi [5], observed that manufacturing in Nigeria has largely been dominated by a valorization of raw materials and import-substitution type that are capital intensive rather than labour intensive, as the absence of heavy industries and car manufacturing has militated against effective transfer of technology hence the heavy investment in manufacturing. He concluded that there is a general low level of inter-industry linkages-failure on the part of industries to utilize the products/by-products of other industries especially in the production process. The establishment of automotive industrial park will be a great intervention that will reposition and diversify the nation’s wobbling economy, and also make the country a leading automobile manufacturing nation within the next decade. The main objectives of the park will be to enhance the following: governance system, business planning, research and development, investment promotion, small and medium sized enterprises, quality product, enterprise competitiveness, new product introduction, knowledge and technology transfer, linkages to the entire economy, as well as stable employment creation.

2. Development of Nnewi Automotive Parts Industrial Park

The development of an automotive parts industrial park in Nnewi in Nigeria will be an effective tool for the industrialization of the country, and attainment of comprehensive economic development goal. However, adequate feasibility studies should be embarked on by the authorities to guarantee its success and also earn the confidence of both the foreign and local investors.



The Korean Industrial Complex Corporation [6], noted that some countries have developed industrial parks to attract Foreign Direct investment (FDI), without thoroughly studying feasibility. They explained that in such cases, those countries face difficulties in attracting resident enterprises and leave the parks vacant, contrary to expectations; as such failures are attributable to hasty implementation of the projects in a vague hope. Accordingly, Nigeria is expected to thoroughly study feasibility and verify demands for an automotive industrial park development projects prior to initiation of the projects, and strategically plan and implement the projects. The untiring efforts of the member representing Nnewi North and South, and Ekwusigo Local Governments Area in the Federal House of Representatives – Hon. Chris Azubogu and the recent information that Anambra State Government presented a certificate of occupancy for hectares land at Nnewi to the Federal Government of Nigeria for the development of an automotive industrial park is highly commendable. The decision to choose Nnewi as the host community is not unconnected with the already existing manufacturing clusters in the town and its environs.

According to the United Nations Industrial Development Organisation (2017), at the moment, four automobile assembly plants are operating in the South Eastern Part of Nigeria with a capacity of nearly 40,000 vehicles annually. They observed that apart from four companies that have obtained their licenses for vehicle manufacturing but have not commenced operations, that those that are already on ground are “Anambra Motor Manufacturing Company (ANAMMCO) in partnership with the world’s largest bus builder; Yutong of China; Innoson Vehicle Manufacturing Company; a Nigerian brand in partnership with Gonow Group of China; Transit Support Services Ltd. Nigeria in partnership with Shaanxi Automobile Group Co., Ltd. (SHACMAN) trucks, and Peace Mass Transit Ltd. Light Commercial Bus Manufacturing.”

However, to forestall the risk of failure for the capital intensive project, the Federal Government and the responsible agencies must be fully committed to its success through the provision of the necessary infrastructures like adequate power supply, very good and reliable modes of transportation, portable water, services, utilities, and other logistics. Bulama [7], observed that poor infrastructure and inadequate infrastructure services are among the major factors that hinder the continents development, and that without adequate infrastructure Africa will not be able to harness the power of science and innovation to meet development objectives and be competitive in international markets.

Commenting on the need for adequate power supply in manufacturing Ihueze [8], observed that the major problem facing industries in Nigeria is inadequate supply of power to the consumers, which made the manufacturing costs unbearable and their products exorbitant. Many manufacturing set ups that are not capable of generating their own electricity had to fold up, while the surviving ones are producing at highest cost rate with lower standard wages for their staff, thereby creating low standard of living, less productivity and environmental pollution.

As attracting FDI is very competitive among the developing and developed nations, the government cannot have competitive advantage in the automotive parts global market without the provision of diverse incentives like low interest loans, import waivers, tax holidays and reductions, and financial support for local investors in the industrial park.

The park development should also incorporate Science, Technology and Innovation (STI), as the global best practice of industrial park development are knowledge based and also rely on science and technology. Ihueze et al [9], noted that Science and Technological innovations play a vital role in wealth creation, improvement of the quality of life and real economic growth and transformation in any society. They observed that “Evidence suggests that those countries that are able to steer Science, Technology and Innovation processes towards knowledge-based economies, enjoy more economic growth and prosperity than those who do not. In addition, they noted that STI may also contribute to social and ecological dimensions of development through providing solutions for specific problems and by enhancing a knowledge base for self-determined development.

Technological innovation is the process through which new and improved technologies are developed and brought into widespread use; it is usually associated with product and process innovation, and will play a vital role with science to achieve a sustainable industrial and economic development of the automotive parts industrial park as depicted in figure 1.



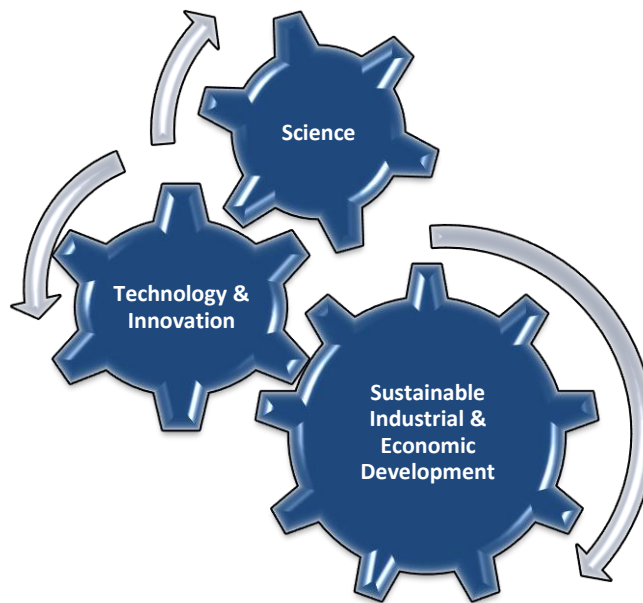


Figure 1: The Link of Science, Technology Innovation on Industrial and Economic Development

According to Sener and Saridogan [10], there are many factor and actor triggering technology and innovation in the economy. As could be observed from figure 2, innovation is an engine of economic growth and national welfare which results from firms, individuals, universities, state-supported researches and the efforts of the civil society. For this reason, it is pertinent to adopt innovation system to provide an environment for economic agents to create and to produce new technologies and innovations in the park.

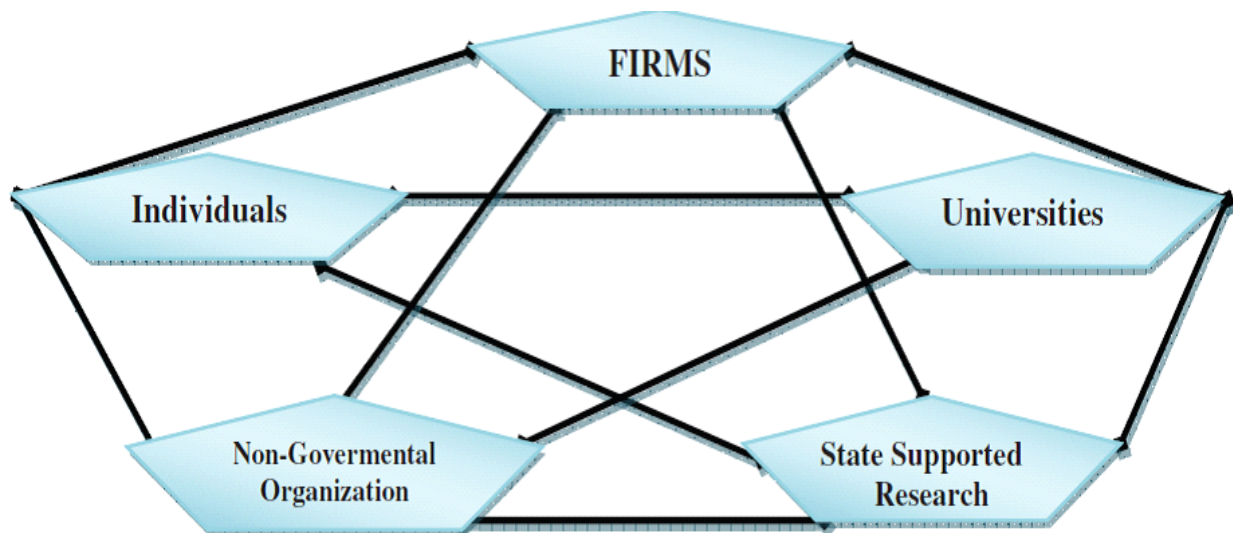


Figure 2: Sources of Innovation as a System [9]

Figure 3 shows the national innovation systems affecting the development of science technology and innovation. In the system, there is a supportive and interactive network to provide innovative environment for economic agents in not only the micro and macro economies, but also national and global level. It is a very important market condition, institutional and structural conditions to produce technology and innovations resulting in competitiveness of the park.

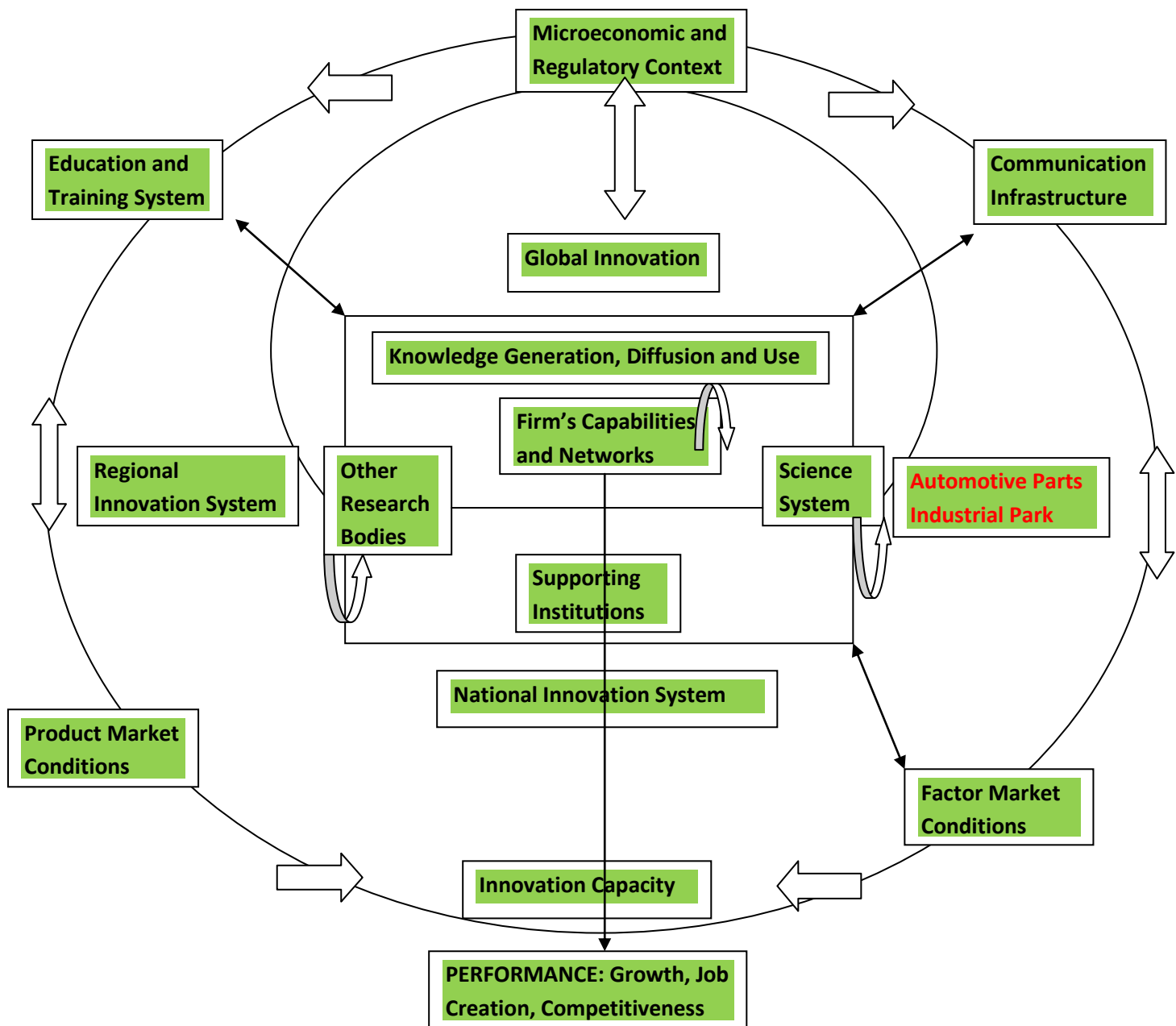


Figure 3: Actors and Linkages in the Innovation System

The growth to be achieved by the adoption of STI in the automotive parts industrial park will open new vista of opportunities for achieving competitive advantage, job creation, sustainability, enhanced product quality, as well as throughput reduction.

3. Benefits of the Automobile Parts Industrial Park

The development of the automotive parts industrial park will offer the country the competitive advantage to participate actively as a viable vehicle manufacturing nation, as it can provide enhanced infrastructure, facilities and services more economically and rapidly when compared with the small and medium scale enterprises, thereby enhancing the speed with which manufacturers will commence production. The cost of conducting



surveys and environmental impact assessments to determine locations that are suitable for setting up automobile parts manufacturing plants by investors will also be eliminated.

ReferenceforBusiness [11], noted that “A well developed concentration of related business spurs three important activities: increased productivity (through specialized inputs, access to information, synergies, and access to public goods), more rapid innovation (through cooperative research and competitive striving), and new business formation (filling in niches and expanding the boundaries of the cluster map)”.

The automotive industrial park will ultimately lead to the rapid development of the host communities; if the necessary infrastructures like railways, roads, electricity etc are provided by the government thereby play a major part in positioning the nation to achieve its vision of transforming the rural areas to industrialized towns that will add value to agrarian products. Mazur et al [12] pointed out that “the presence of cluster structures in the regional economy can successfully combine the interests of business, government, science and education, which, in particular, explains the popularity of this approach to the development of the regions”.

It will enhance the ease of doing business as unnecessary bureaucratic bottlenecks and infrastructural shortcomings will be considerably reduced, thereby leading to an influx of foreign investors which will eventually increase FDI. It will also serve as a one stop shop for manufacturers as it will provide them with spaces, infrastructures, utilities and the needed facilities. Other benefits include:

- Standardization and improved products’ quality
- Reduced cost of innovation due to cluster
- Rapid industrialization
- Reduction in over-dependence on imported automobiles
- Boost in Gross Domestic Product
- Faster return on investment
- Availability of support facilities
- Availability of infrastructure
- Mutual cooperation
- Increased employment opportunities etc.

4. Challenges of the Automobile Parts Industrial Park

Despite the numerous benefits of an automotive parts industrial park some challenges can also be recognized, although many of them can be surmounted by proper design and planning. The major challenge can be that of setting realistic goals at the onset and designing possible strategies towards achieving the goals, this is because a poorly planned industrial park will lead to industrial slum that will constitute many problems like heavy gridlocks, improper facilities and infrastructures, as well as industrial nuisance.

Although the concentration of facilities which leads to cost reduction is a major benefit of industrial parks, there is also the challenge and risk of over-investing in infrastructures above the essentials, hence the need for methodical financial and physical planning as well as execution. Commenting on the challenges of automotive industrial parks, Petrov [13], observed the following:

- The excessive concentration of businesses in domestic relationships and environmental conflict beyond the cluster may lead to technology obsolescence and decrease of their competitiveness in the domestic and foreign markets;
- The cluster’s reserved character may cause the elasticity reduction of participating enterprises;
- The absence of competitors in an isolated cluster “destroys” the need for constant updating of the production and sales process;
- The uniqueness of each cluster leads to considerable complication of efficiency assessment of its functioning, because there is no opportunity for comparison with other clusters;
- The correlation between the entire cluster consequences and the performance of its each member.

Usually even with adequate planning and design it takes several years to complete a standard automotive park, as apart from the completion of the various structures and infrastructures it still requires the installations of utilities and equipment, selection of rightful occupants, as well as other exigencies, efforts must be put in place



to ensure adherence to international best practice, as faulty executions will shatter the dreams of the stakeholders by leaving it in an unfinished state thereby leading to uneconomic investments.

Efforts must also be put in place to ensure strict compliance to regulations and adherence to rules after completion as well as proper maintenance mechanisms as without sufficient care and discipline, the industrial park might degenerate and become completely surrounded by uncontrolled growth of business enterprises, thereby turn a well-conceived project into a congested industrial slum and a large traffic cul-de-sac.

5. Conclusion

The Automotive parts industrial park is a master plan for innovative and creative development as it is a worthy system of enhancing technological and industrial scheme, while considering the required infrastructure, facilities, resources and market conditions. When properly designed and developed, it will attract major automobile parts manufacturers from both locally and abroad, thereby leading to an appreciable increase in FDI. The importance of developing an automotive parts industrial park cannot be over-emphasised as apart from the provision of raw materials to the teeming vehicle manufacturing and assembling companies in the South Eastern part of Nigeria, it will also enable the region to attain the enviable height of concentrated buoyant automobile economic activities in cooperation with infrastructure knowledge, and also lead to creation of more jobs.

The completion of the automotive industrial park at Nnewiwill positively affect the country's economic policy, enhance the GDP, give Nigeria a reputable place among automobile manufacturing countries, and ensure that the Government will not direct its efforts in sustaining individual companies, but will develop a lasting relationship with the investors and industrialists at the park, thereby impacting positively on the economy.

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