**MAINTENANCE POLICY OF PUBLIC ASSETS AND ECONOMIC DEVELOPMENT OF NIGERIA**

 **Ambakederemo, Bomiegha1, Ekenta, Chukwuemeka2**

**Department of Estate Management, Rivers State University,**

**Port Harcourt, Nigeria**

**bomia.ehiokioya@gmail.com**

 **Abstract**

*Maintenance policy of Public Assets and its relationship with Economic Development has always remained an area of interest to research scholars. This empirical study is a relationship study that focused on Sharks Football Stadium in Port Harcourt, Rivers State, Nigeria. The population of study consists of 154 questionnaires, which was distributed to staff of the Rivers State Ministry of Youths & Sports and the Rivers State Sport Council. The multiple regression analysis technique, using the SPSS software was implored in the analysis. The predicting variable, maintenance policy revealed a positive regression coefficient of 0.339 and a P value of 0.000 which is less than alpha of 0.05, thereby necessitating a rejection of the stated null hypothesis of “there is no significant relationship between maintenance policy of public assets and economic development of Nigeria”. The study therefore recommends regular maintenance policy reviews to ensure adequate and regular inspection of facilities, adoption of a maintenance management programme for planned, effective and corrective strategies; training and retraining of technical personnel to upgrade competence as well as adequate budgetary provision to cater for maintenance costs and ensure the usefulness of the facilities at all times.*

***Keywords:*** *Predictor variables, maintenance policy, Regression Coefficient, Variation, Upgrade Competence, budgetary provision, corrective strategies.*

**1.1 INTRODUCTION**

Maintenance policy of public assets in Nigeria leaves much to be desired. This is because the public assets which are capital intensive to construct are left to rot away due to lack of inadequate maintenance effort. The value derivable from the assets optimum performance or full capacity utilization declines. Public assets are provided by government to serve social needs of the people; they also have revenue earning potentials when properly harnessed. Examples of such assets relevant to this study are the sporting and cultural facilities such as football stadium, civic centres, museums, libraries etc. These public assets need proper maintenance if the objectives for their initiation and construction must be realized.

Maintenance, as posited by Bamgboye (2006) is ‘’ the art of bringing back the life span of the item”. Physical assets require regular maintenance to sustain their usefulness. Maintenance encapsulates efforts, actions and activities aimed at ensuring sustainability of the life span of an infrastructure. According to Oyedele (2012), Infrastructure is generally a set of interconnected structural elements that give rise to the framework supporting an entire structure of development which is a means of attaining a set of objectives.

Sound Infrastructure is a source of wealth creation when sufficiently maintained. Unfortunately, governments in developing countries such as Nigeria are faced with immense challenge of maintaining infrastructure to deliver and sustain basic services to the citizens and to foster economic growth, World Bank Group (2016).

Furthermore, Abumere (2012) and Bobou (2017) remarked that the poor state of infrastructure arising from poor maintenance poses serious challenge to economic developmental efforts. Studies have revealed that Nigeria lacks both critical mass of maintenance personnel and strategic planning framework of the maintenance system from the inception of the public assets, through operations to the commissioning, Bobou (2015). According to Alani (2012), the lack of maintenance of Public Sector Assets in the country is the bane for infrastructure – driven national development”. Iruobe, (2011) and Tijani (2016) categorically blamed the absence of a clear – cut assets maintenance policy in the country, while Sani (2012) opined that maintenance is very essential to ensure that infrastructural facilities or public sector assets are functioning at optimum level, at minimum cost of repairs and providing a safe environment for all user. It is true that as public assets are maintained, the desired lifespan are maintained and the potentials to add value to economic development is assured.

1.2 **Statement of the Problem**

Most stadiums in Nigeria today are poorly maintained, causing them to perform below installed capacity as revenue dwindled to the detriment of desired economic development. This has elicited concern among researchers such as Bobou, Gumus and Ogungbemi (2017), Adenuga, Olufowobi and Raheem (2010), Onyenuga, Akinsola, Hussaini, Fatokun (2012), Uma (2014) and several others, whose studies were aimed at proffering sustainable solutions to the phenomenon.

This study therefore examined the relationship between Public Assets Maintenance Policy and Economic Development in Nigeria, with a view to adding to existing body of knowledge.

**1.3 Purpose of the study**

The main aim of the study is to ascertain the extent to which maintenance policy influences the economic development of Sharks Stadium in Port Harcourt, Nigeria.

**1.4** **Literature Review**

**1.4.1 Maintenance – An overview**

Maintenance deals with assuring that all of the elements of the infrastructure are serviced so they operate efficiently and are reliable and safe. IFMA (2014).

Maintenance includes scheduling and conducting regular, periodic predictive, preventive and corrective maintenance activities.

According to IFMA (2014), a Facility Manager is expected to operate and maintain the facility in a manner that supports the goals of the entire organization and balancing competing requirements. The following areas of focus are relevant for all facility maintenance programmes:

* Providing safe, healthy and productive environments.
* Develop lowest component/system failure with optimum reliability at cost effective rates.
* Anticipate change and make plans ahead for necessary adaptation.
* Ensure compliance with relevant international, national and local codes and regulations.

Maintenance Managers are advised to have a detailed and complete maintenance plan. Planning is important in anticipating both long-term needs and short-term requirements.

**1.4.2** **Benefits of Maintenance**

The planned maintenance of public asset will help to improve the asset’s life and avoid any unplanned maintenance activity. For example, a successful preventive maintenance programme is dependent on the co-operation of all the parties involved i.e. engineering managers and maintenance personnel.

Maintenance decreases asset’s downtime and number of major repairs are reduced. Maintenance has the indisputable benefit of conservation of assets and increased life expectancy of assets, thereby eliminating premature replacement of assets. Above all, maintenance guarantees improved safety and quality conditions for everyone.

**1.4.3 Maintenance of public assets**

Maintenance of public assets such as stadiums will prolong the life span of the facility and sustain its revenue generating potentials. The neglect of maintenance keeps researchers wondering what factors could be responsible for a lack of or improper maintenance of public sector assets.

The poor maintenance of our stadiums have revealed a recurring decimal of sorts and sufficient for researchers to believe that the same inhibiting factors could apply in all cases where maintenance of stadium should rather influence economic development.

For Economic development to be attained in third world countries, there must be sustained level of economic growth stimulated by government spending, hence Muritala & Abajomi (2011) submits that government expenditure and economic development has a positive relationship. Economic Development is therefore relevant in the measurement of progress and quantity of life in developing nations.

**1.4.4 Asset Maintenance Policy**

A study by Oluwatoyin and Olotuah (2015) defines maintenance policy as the ground rules for the allocation of resources (men, materials and money) between alternative types of maintenance action that are available to management. It opined that in order to make a rational allocation of resources, the benefit of maintenance to the organization should be identified vis-à-vis the costs involved. Consideration must be given to issues such as objectives, benefits and policies. It is also required that a maintenance policy be clear, written documents that consider assets life cycle, desired standard of maintenance and length of time that maintenance is required. In formulating maintenance policy, the factors to consider are compliance with statutory requirements, cost, method of financing and method of execution, i.e. if by contracting or by direct labour option, Oluwatoyin & Olotuah, (2015).

According to Henayaningsih et al (2006), the maintenance of building and office facilities aims to maintain or optimize the life of the building or office facilities so as to provide satisfaction or comfort from those served.

The following is the description and definition of maintenance, Adam and Latief 2018:

* restore the physical condition of the building according to the requirements set
* prevent further failures in buildings
* replace the component at the end of the useful life with the latest components
* mitigating the consequences of natural disasters
* Assess the need for maintenance on buildings.

**1.4.5** **Problems of Non- Maintenance of public assets**

When facilities are left without maintenance, a minor issue can develop into a major problem. Infrastructure insufficiency is one of the criterion for the classification of Nigeria as the poverty capital of the world and non-maintenance of our facilities further aggravates the negative ranking. Nigerians have always perceived public assets as government property which does not belong to anybody Adeleye (2009) as cited in Uma et al., (2014). Many public facilities are left to suffer decay without any positive actions from the masses to encourage the sustainability of asset. As a result, public assets or facilities do not perform to reach expected life span due to lack of maintenance.

**1.4.6 Economic Development**

According to Agarwal (2020), Economic Development elevates people from low standards of living into proper employment with suitable shelter, and guarantees sustainability which means meeting the needs of the present without compromising future needs. Economic Development is a policy intervention that aims at improvising the well-being of people. Economic growth is an aspect of development which is measured by the increase in a country’s total output or real Gross Domestic Product (GDP) or Gross National Product (GNP). The Gross Domestic Product of a country is the total value of all final goods and services produced within a country over a period of time.

Maintenance policy in this study suggests the entrenched practice of regularly and consistently keeping a building, machine, facilities, equipment, infrastructure etc. in good and working condition. In support of this assertion, Suwaibatul Islamiah, et al (2012) posited that maintenance culture is the values, way of thinking, behavior, perception and the underlying assumptions of any person or group or society that considers maintenance as a matter that is important and practices in their life. If a nation must develop, it is imperative that installation as well as maintenance of its existing facilities be given priority. This is more so for developing nations like Nigeria where there is a huge gap between the supply and demand for such facilities due to high rate of population growth and other factors (Dabara, et al 2015). Nigerian government, according to Eli, et al., (2006), took certain economic steps towards being among the best twenty economies in the world by the year 2020. Attaining sustainable infrastructural development by successive governments and cultivation and practicing maintenance culture are essential in achieving this vision.

**1.4.7 Challenges to Performance Measures of Public Facilities in Nigeria.**

Iwarere and Lawal studied “Performance Measures of Maintenance of Public Facilities in Nigeria”. It identifies financial scandal, poor maintenance culture, incompetent management, lack of training of maintenance personnel, irregularity in power supply as major problems that hinder the performance measures of maintenance of public facilities. Hauwa et al., 2015 examined Public Private Partnership and Nigeria’s Infrastructural Development: a panacea for Economic Growth. The paper found that the task of infrastructural provision is too important to be left in the hands of government alone. Oluwatoyin and Olatuah (2015), made an assessment of maintenance policies and strategies in public secondary school buildings, Ogun State, Nigeria. All these studies are with a view to proffering sustainable solutions to the daunting problem of lack of maintenance policy.

**1.5 Methodology**

The study employed the quantitative research techniques using a cross sectional survey design; while correlation techniques will be used to ascertain the variations in the criterion variables. Both questionnaire and interviews will be used to collate date.

1.**6 Data Analysis**

 **Table 1** **Percentage of the respondents’ opinion on public asset maintenance policy**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **Opinions** | **Strongly agree** | **Agee** | **Undecided**  | **Disagree** | **Disagree Strongly** | **Total** |
|  | Response in Percentages | No. %  | No % | No % | No % | No % | No % |
| 1 | My organization has a maintenance policy concerning its public assets. | 31 20.1 | 17 11.0 | 0 0.0 | 46 29.9 | 31 20.1 | 154 100 |
| 2 | My organization’s maintenance policy is a preventive type. | 60 39.0 | 20 13.0 | 6 3.9 | 47 30.5 | 21 13.6 | 154 100 |
| 3 | My organization’s maintenance policy is a written document. | 53 34.4 | 16 10.4 | 4 2.6 | 79 51.3 | 2 1.3 | 154 100 |
| 4 | My organization’s policy on maintenance helps to extend asset lifetime. | 30 19.5 | 32 20.8 | 5 3.2 | 47 30.5 | 40 26.0 | 154 100 |
| 5 | Public asset maintenance policy has a significant influence on economic development. | 38 24.7 | 12 7.8 | 2 1.3 | 81 52.6 | 21 13.6 | 154 100 |
| 6 | Maintenance policy on public asset in my organization is also targeted at employment generation. | 80 51.9 | 8 5.2 | 0 0  | 65 42.2 | 1 0.6 | 154 100 |
| 7. | Maintenance policy has a direct relationship with economic development in Nigeria. | 72 46.8 | 48 31.2 | 0 0 | 30 19.5 | 4 2.6 | 154 100 |

Source: Survey Data, 2021

Table 1 represent respondents’ views on public asset maintenance policy. To the first opinion, 20.1% of the respondents indicated strongly agree, 11% indicated agree, 0% were undecided, 29.9% indicated disagree while 20.1% indicated strongly disagree.

To the second view, 39% of the respondents indicated strongly agree, 13% indicated agree, 3.9% indicated undecided, 30.5% indicated disagree, while 13.6% of respondents indicated strongly disagree.

To the third opinion, 34.4% of respondents indicated strongly agree 10.4% indicated agree, 2.6% indicated undecided, 51.3% indicated disagree, while 1.3% indicated strongly disagree.

To the fourth opinion, 19.5% of total respondents indicated strongly agree 20.8% indicated agree, 3.2% indicated undecided, 30.5% indicated disagree, while 26% indicated strongly disagree.

To the fifth opinion, 24.7% of the respondent indicated strongly agree 7.8% indicated agree, 1.3% indicated undecided, 52.6% indicated disagree, while 13.6% indicated strongly disagree.

To the sixth opinion, 51.9% of the respondent indicated strongly agree 5.2% indicated agree, 0% indicated undecided, 42.2% indicated disagree, while 0.6% indicated strongly disagree.

To the seventh opinion, 46.8% of the respondent indicated strongly agree 31.2% indicated agree, 0% indicated undecided, 19.5% indicated disagree, while 2.6% indicated strongly disagree.

**Table 2 Percentage of the respondents’ opinion on maintenance management of public assets**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| S/N | Opinions | Strongly agree | Agee | Undecided  | Disagree | disagree Strongly | Total |
|  | Response in Percentages | No % | No % | No % | No % | No % | No % |
| 1 | My organization’s maintenance management practice is not cost intensive. | 31 20.1 | 29 18.8 | 6 3.9 | 44 28.6 | 44 28.6 | 154 100 |
| 2 | Planned maintenance of public sector assets is an essential practice in my organization. | 47 30.5 | 8 5.2 | 6 3.9 | 71 46.1 | 22 14.3 | 154 100 |
| 3 | The practice of maintenance management is necessary strategy in all public sector organization. | 23 14.9 | 79 51.3 | 4 2.6 | 44 28.6 | 4 2.6 | 154 100 |
| 4 | Maintenance management of public assets has significant influence on Economic Development of Nigeria | 92 59.7 | 12 7.8 | 2 1.3 | 43 27.9 | 5 3.2 | 154 100 |
| 5 | Maintenance Management in my organization ensures the actualization of maintenance objectives. | 55 35.7 | 29 18.8 | 2 1.3 | 64 41.6 | 4 2.6 | 154 100 |
| 6. | Maintenance Management prolongs the useful life of public assets in Nigeria. | 33 21.4 | 15 9.7 | 0 0 | 81 52.6 | 25 16.2 | 154 100 |

Source: Survey Data, 2021

Table 2 represent respondents’ views on maintenance management of public assets. To the first opinion, 20.1% of the respondents indicated strongly agree, 18.8% indicated agree, 3.9% were undecided, 28.6% indicated disagree while 28.6% indicated strongly disagree.

To the second view, 30.5% of the respondents indicated strongly agree, 5.2% indicated agree, 3.9% indicated undecided, 46.1% indicated disagree, while 14.3% of respondents indicated strongly disagree.

To the third opinion, 14.9% of respondents indicated strongly agree 51.3% indicated agree, 2.6% indicated undecided, 28.6% indicated disagree, while 2.6% indicated strongly disagree.

To the fourth opinion, 59.7% of total respondents indicated strongly agree 7.8% indicated agree, 1.3% indicated undecided, 27.9% indicated disagree, while 3.2% indicated strongly disagree.

To the fifth opinion, 35.7% of the total respondents indicated strongly agree, 18.8% indicated agree, 1.3% indicated undecided, 41.6% indicated disagree, while 2.6% indicated strongly disagree.

To the sixth opinion, 21.4% of the total respondents indicated strongly agree, 9.7% indicated agree, 0% indicated undecided, 52.6% indicated disagree, while 16.2% indicated strongly disagree.

1.7 **Discussion of findings**

**1.7.1 Public Asset maintenance Policy and Gross Domestic Product**

Our hypothesis empirically measured the relationship between Maintenance Policy of public assets and Economic Development of Nigeria using the Gross Domestic Product as the measurable outcome. The test results revealed that over 11.5% of the outcome of the Gross Domestic Product of Nigeria is accounted for by the maintenance of public assets. It also revealed a regression coefficient of 0.339 which is positive and a p-value of 0.000 which is less than alpha of 0.05. We can therefore state that when these assets are maintained regularly, they would in turn generate revenue for the government. For example, before any competition is being organized, the governing body for sports would carry out an inspection of the sporting facilities and it is the results of such inspection that would determine whether such stadium would be used or not. Therefore, the maintenance of public assets do not only prevent the easy dilapidation, but would enhance optimum usage and thus attract revenue generation.

Maintenance of public assets is keen in the promotion of economic stability and rise in the Gross Domestic Product of a nation. This also mean that with adequate maintenance, the sustainability of public infrastructure would be guaranteed.

**1.7.2 Maintenance Management and Gross Domestic Product**

This hypothesis reveals that maintenance management has a significant effect on economic development. This was reflected in the coefficient of 0.54, a coefficient of determinant of 0.292 which revealed that 29.2% of the outcome of Gross Domestic Product is accounted for by effective maintenance management of public facilities. These outcomes were crowned with a p-value of 0.000 which is less than alpha of 0.05.

Public sector assets in this context can range from transportation facilities, real estate facilities and recreational facilities such as parks, arenas and stadiums. A Sport Facility Manager is responsible for managing and maintaining sport and recreation facilities. Job responsibilities range from capital and operations management to leasing, construction, planning, designing, and marketing. Management must coordinate not only the facility but the employees of the facility to ensure operations run smoothly. When these activities are carried out effectively, there is every tendency of economic development. Thus, adding value to the gross domestic product of the country.

**1.0 Conclusions and Recommendations**

The paper focused on maintenance policy of public assets and its relationship with economic development, a study on Sharks Football Stadium in Port Harcourt, Rivers State of Nigeria. Of greater concern is the revelation that maintenance practice is very poor in Nigeria due to lack of deliberate policy on same and most public facilities and infrastructures suffer years of abandonment and decay with attendant loss of much desired revenues as well as social benefits. Revenues from public assets are expected to boost government revenues through personal income taxes, value added taxes and hire of stadium for events. The findings from the study were helpful in the recommendations proffered.

**Recommendations**

The empirical finding on this study, reveals that public assets maintenance policy substantially influenced the outcome of the Gross Domestic Product by 11.5% which was used as the measurable value for economic development, while other factors are responsible for the remaining 88.5%. This exhibited a positive regression coefficient of 0.339. This therefore calls for the standardization of pubic asset maintenance policy to sustain maintenance action that will prolong asset life span, appreciate asset value and boost revenue earning potential in Nigeria.

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