

## **ECONOMIC DEVELOPMENT AS A FUNCTION OF CONSTRUCTION PROJECT PERFORMANCE**

**Ayodeji OKE<sup>1</sup>, Adedayo OGUNGBILE<sup>2</sup>, Luqman OYEWOBİ<sup>3</sup> and Callistus TENGAN<sup>4</sup>**

<sup>1</sup>Department of Construction Management & Quantity Surveying, Faculty of Engineering and Built Environment, University of Johannesburg, Johannesburg, South Africa, 2028, PH (+27) 0-84-915-5117, Email: emayok@gmail.com.

<sup>2</sup>Department of Quantity Surveying, School of Environmental Technology, Federal University of Technology, P. M. B 704, Akure, Nigeria, PH (+234) 80-693-79330, Email: Adedayo\_johnson@ymail.com

<sup>3</sup>Department of Quantity Surveying, School of Environmental Technology, Federal University of Technology, P. M. B 65, Minna, Nigeria, PH (+234) 80-338-23132, Email: l.oyewobi@futminna.edu.ng

<sup>4</sup>Department of Building Technology, Bolgatanga Polytechnic, P. O. Box 767, Bolgatanga-Ghana, PH (+233) 208248998, Email: callyclarke@gmail.com

### **ABSTRACT**

Poor performance of construction projects is one of the major cause for concern in the construction industry. Many of the construction projects executed in Nigeria experienced several challenges ranging from simple to complex issues. This paper therefore, examines factors affecting the performance of construction projects, their effects on the economic development and the impact of the factors on the economic development of the nation. The study identified a set of factors believed to affect project performance through extensive review of literature which form the basis for questionnaire survey. A total of 200 questionnaires were self-administered to professionals in the Nigerian construction industry, out of which 148 were retrieved and considered fit for analysis. The survey findings indicate that the most important factors affecting project performance are: project design cost, project complexity, unavailability of resources, quality of equipment and raw materials, while on-time completion, client satisfaction and productivity were considered to be the main measures of construction project performances. Improvement in technology and extension of infrastructures, were the most important indices of economic development. It is recommended that project owners must work collaboratively with all the professionals involved in carrying out construction project in order to facilitate good performance. More so, stakeholders in the construction industry including professionals and regulatory bodies should be proactive in discharging their responsibilities bearing in mind the effect of construction project performance on economic development of the country. .

**Keyword:** Construction, Development, Economic, Performance, and Project

### **1. INTRODUCTION**

Every activity is success driven and construction project is for no reason an exception. The indistinct definition of project success and the different views of participants towards this concept, has made it difficult to tell whether a project is successful as there is a lack of unanimity. Time, cost, human resources and materials to be used for construction project have long been the success criteria used to evaluate the quality performance of any construction project (Collins, 1996). The failure of any construction project is mostly related to the performance problems and there are many reasons and factors which are attributed to such problems. A large number of performance indicators such as time, cost, quality, client satisfaction, client changes, business performance, health and safety could be related to various dimensions and used in measuring and evaluating project performance (Cheung, Suen & Cheung 2004). Chan and Kumaraswamy (2002) opined that construction time is very important because it often serves as an essential benchmarking for measuring the performance of a project and the competence of the project organization. Until recently, maintaining steady cost projection on construction projects had been an issue of serious concern, both to the client and project contractors. Construction project development involves several parties, many processes, diverse phases and stages of work and abundant deal of input from both the public and private sectors, with the major goal being to bring the project to a successful completion. (Takim & Akintoye, 2002). The construction industry is vital for the growth of the economy of any nation. In many ways, the speed of the economic growth of any country can be measured by the rate of development of physical infrastructures, such as buildings, roads and bridges. According to Collins (1996), as construction gets more complex, a more sophisticated method is necessary to deal with commencing, scheduling, funding, designing, approving, executing and completing a project. The level of success in carrying out construction project development activities will rest heavily on the class of the decision-making, financial, the time set for the project to be completed and organizational performance of the respective parties.

Oke & Abiola-Falemu (2009) revealed that the quality of materials and workmanship in Nigeria building industry is not satisfactory and that the problem is in the use of inappropriate materials supplied to site and inefficient of workmen. The active management of human resources is the key towards attaining the greater construction workers productivity thus undertaking the construction projects within their predefined limits and scope. The building construction industry in Nigeria is a fast emergent sector of the economy which was documented to have a growth rate of more than 20% between 2006 and 2007 (Oke & Abiola-Falemu, 2009). This recorded growth has, however not been proportionate with the growth of Nigeria's total Gross Domestic Product (GDP) as the total contribution of the construction industry to the nation's GDP remains very low at 1.83% in 2008 (Oke & Abiola-Falemu, 2009). The key influences that have added to the growth in the construction and property sector include extraordinary demand for buildings from corner to corner of all sectors of the economy; the concentration on infrastructure improvement by state and federal governments; the acceptance of privatization and commercialization as tools of federal government policy and efforts at controlling regulations concerning to how the constructions business is done in the country (Trade Invest Nigeria, 2012).

The construction industry is composite in its nature because it involves huge numbers of parties as clients, contractors, professionals, investors, and supervisory bodies. In spite of this intricacy, the industry plays a key role in the development and accomplishment of the general public's goals. It remains one of the major industries with a contribution of 10% to the Gross National Product (GNP) in developed countries (Navon, 2005). Nigeria is no exclusion of this; the native construction industry is one of the focal economic driving sectors, supporting the country's economic activities. Though, various indigenous

construction projects report poor performance due to various obvious project-specific causes such as: unavailability of materials, unwarranted alterations of design and sketches, poor organization amongst participants, ineffectual monitoring and feedback, and dearth of project management expertise.

Kim and Wileman (2003), stated that international construction projects performance is affected by more complex and dynamic factors than domestic projects; frequently being exposed to serious external uncertainties such as political economical social and cultural risks, as well as internal risks from within the project. Mostly, performance measurements may have one or more pointers, and could be swayed by several project features. This research work examined the factors that affect the performance of construction projects and the measures of construction project performance. The research work evaluated the indices of economic development and in general accessed the effect of construction project performance on the economic development of Nigeria.

## **2. CONCEPT OF PROJECT PERFORMANCE AND ECONOMIC DEVELOPMENT**

Akanni, Oke and Akpomimie (2015) opined that the success of performance determines the success of construction projects. Performance measurement is well-defined to be the process of appraising performance with a distinct goal in focus. It is an indication of the present state and more importantly, what it is expected to look like at completion (Arditi & Gunaydin, 1997). Furthermore, it was stated that measurement could guide stable progression toward creating goals and ascertaining shortfalls or unproductivity. To address performance linked issues, numerous researches have been done in various countries of the world. Chua (1999) developed a categorized model for construction project success for diverse project objectives. In the study, Chua (1999) found that four main project aspects influences quality objectives, namely; project characteristics, contractual arrangements, project participants, and interactive processes. However, Chua (1999) lectured that time, cost, quality objective in addition to project satisfaction have a tendency to be the most significant keys to measure the complete performance of a project. In addition, as indicated by many studies, most project records cost or time overrun during their tenure of execution. According to Arditi and Gunaydin (1997), achievement of satisfactory levels of quality in the construction industry has been a long-term problem. The last three decades have witnessed innovative studies on improving quality performance of construction projects. Many emphasized that the management of quality is a vital matter in the delivery of construction projects and similarly maintained the significance of evaluating performance for the reason that it will point out status and path of a project. Performance can be measured by making a comparison of the difference between the expected and what is in point of fact received. Love, Tse and Edwards (2005), stated that clients would generally be satisfied with the performance of a professional when the value of service delivery goes beyond or at minimum is at par with the expected result. Quality, plus project success, in construction projects should be capable of being regarded as fulfillment of expectation of those contributors and investors involved in such developments. Compliance to good performance standards in construction projects is very important if the administration and implementation of such projects is to be an accomplishment. Consultants needs to be aware of their weaknesses or shortages and make conforming modifications to fulfill the expectations of clients to realize contractual improvement. Arditi and Gunaydin (1997) found that organization guarantee to uninterrupted quality enhancement, organization leadership in certifying extraordinary practice; in-depth training of all workforces; proficient coordination to stimulate quality concerns at the corporate level; and effective teamwork amongst parties taking part in the

project are universal factors that affect quality. Stakeholders need to meet their requirements collectively and individually for successful construction project performance to be achieved.

## 2.1 Factors Affecting the Construction Project Performance

There are three stages a typical construction project undergoes, which are; pre-construction stage, construction stage and post construction stage. Beside these stages, a numerous of activities are performed to attain the output and intents of the owner. It is therefore of importance for the construction project team, to measure and make an evaluation its performance on the all activities and practices all through the duration of the construction project (Love et al., 2005). Love et al., (2005) opined that performance of a project can be measured as a product of the process along with the presence of the process. Unsuitability of the selected procurement system as seen in Dissanayaka and Kumaraswamy (1999), is one of the main reason for the poor performance of the construction industry. Chan and Kumaraswamy (2002) stated that a crucial benchmarking in the measurement and evaluation of project performance and project organization's efficiency is construction duration. People, quality, time, cost, health and safety, environment, communication, client satisfaction and a controlled system were identified by Chan and Kumaraswamy (2002) as important projet performance elements in the identification of the factors affecting construction project effort. It was obtained by Stewart (1967) that human factors played an important role in determining the performance of a project. The factors affecting construction performance are majorly classed to include **Cost Factors** which includes profit rate of project (Andi & Minato, 2003), project design cost (Andi & Minato, 2003), waste rate of material (Cheung et al., 2004), cost of variation order (Ssegawa, Mfolwe, Makuke, & Kutua, 2002), and cost of reworks (Ssegawa *et al.*, 2002); **Time Factors** which includes unavailability or late arrival of resources to site, average delay in regular payment (Aibinu & Odeyinka, 2006; Kim & Wileman, 2003), time needed to rectify defects (Aibinu & Odeyinka, 2006), and planned time for construction (Aibinu & Odeyinka, 2006); **Quality Factors** which are quality of equipment and raw materials, unavailability of competent staffs (Aibinu & Odeyinka, 2006), conformance to specification, and quality assessment system in organization (Achi, Onukwube & Ajayi, 2007); and **Productivity Factors** which are project complexity (Achi, Onukwube & Ajayi, 2007), management-Labour relationship, sequencing of work according to schedule (Aibinu & Odeyinka, 2006), and number of new projects per year (Kim & Wileman, 2003).

## 2.2 Measures of Construction Project Performance

A synonym for success, according to Kim and Wileman (2003), is effectiveness, which is the measure of achievement of set objectives. Projects are shaped to achieve objectives and the measure of success id dependent on the extent of achievement of the set objectives with top priorities of the project objectives set at meeting project time, maintaining the proposed budget estimates, technical specification and mission to be performed, all which are the standards for measuring project success. This is in agreement with De wit (1988) findings that overall objectives of the project is key to project success measurement. To be specific, according to some researchers, the concept of success in a construction project is

corresponding to the efficiency and effectiveness measures. The maximization of output for a specified level of input or resources is generally agreed as efficiency, while the achievement of goals or objectives is regarded as effectiveness. Project success in term of efficiency is the adherence to schedule, time, specifications, budget, and basic performance expectations. Hence, efficiency measures can be said to deal with 'time, budget and specifications' (Yasamis, Arditi & Mohammadi, 2002). Consequently, an effective construction project must be in accordance with the set objectives of the project and should in the end meet the clients' goals and objectives. According to De wit (1988), performance measurement can be classified based on the area of measurement and method of measurement. The methods of measurement of success can be in terms of performance; the overall performance in particular the commercial performance at completion of the project. Additionally, De wit (1988) proposed a model of performance measurements in relations to outputs and resources to be measured at different levels of the project. However, outputs are measured to determine the effectiveness as regards to time, budget, specifications, etc. and resources are measured to determine the efficacy in terms of how the available resources have been maximized for the production of output (Yasamis et al., 2002). Hence, moral and economical interest of the stakeholders are adequately incorporated in performance measurement of any given project. It should be a comprehensive measure of client satisfaction during and after project completion, cost maximization on the project in ensuring value for money spent, overall satisfaction of the project team, on-time completion, and resource management (Yasamis et al., 2002).

### **2.3 Indices of Economic Development**

Although it contributes less than the manufacturing industry and/or other service industries, the construction industry in Nigeria has continued to occupy an essential position in the country's economy (Aibinu & Jagboro, 2002). The construction industry has contributed a lot to the economic growth and this has necessitated an improved efficiency in the industry by means of cost timeliness and effectiveness, and this would consequentially contribute to cost savings for the country as a whole. As the construction industry in Nigeria is growing on a day-by-day basis, there are many indications that reflects that this growth being seen in the construction industry has a consequential effect on the economy of the nation as a whole (Aibinu & Jagboro, 2002). These indicators are seen in the improvement in technology in the industry, increase in government expenditure towards construction activities leading to creation of more employments opportunities to the youths in the country, the utilization of natural resources that abounds in the country for various construction materials used in the construction industry, Trade diversification within the industry and an increase in entrepreneurship within the industry as many sub-contractors are surging up on a daily basis (Aibinu & Jagboro, 2002). Moreover, the growth of the construction industry in Nigeria has gave way for increased protection of human rights of labour (skilled and unskilled), professionals and contractors involved in construction works, an increase in buildings and infrastructural components, leading to massive and continued urbanization and extension of basis amenities. Also, as buildings, bridges and roads are the product of the construction industry, there is an increase in modern construction products in the country and this is even leading to exportation of finished goods (in this case, construction professionals) to neighboring countries (Aibinu & Jagboro, 2002). These perceived and laudable

improvements in the construction industry serves as notable and important indicators to the importance of construction in the life of the nation's economy.

#### **2.4 Construction Project Performance and Economic Development of Nigeria**

Ever since Nigeria's Independence in 1960, the primary production of the country; agriculture, quarrying and mining (crude oil and gas inclusive) have been the major contributors to the economy amounting to over 80% of government revenue and almost 60% of the GDP and as a result, the economy remains weak, narrow and undiversified. Additionally, 75% of employment in the nation and over 90% of foreign income accrue from these primary production activities (NBS, 2011). On the other hand, building and construction, manufacturing etc. which are the secondary activities with a tradition of having a greater possibilities of generating massive employment opportunities, ability to widen the production base of the country, creating a more sustainable foreign income and government revenues merely account for 4.14% to 2.0% of the GDP (NBS, 2011). However, in the last decade, some meaningful changes have taken place in the output structure of the economy of the nation. An obvious change is the emergence of the telecommunication sector which has caused a substantial and sustained increase in the GDP growth and created a lot of employment to the youths of the country. That said, the economy continues to face a number of challenges that has disadvantaged the economic transformation agenda. A respectable GDP growth was experienced between the year 2006 and 2012 with an annual average of 6.5% (CBN, 2011), but the said growth did not bring an appreciable amount of new employment neither did it reduce the poverty growth rate in the country. Rather, the prevalent security problems, collapsed government systems and structures, and unceasing non-functional infrastructure continued to face the economy.

However, in developing and developed economies, the construction industry can be seen as the economic sector which through adequate planning, design, implementation, maintenance, repair and operation, can transform different available resources that abound in those countries into constructed and useful facilities. The construction products ranges from public and private facilities, residential and non-residential apartments to industrial constructions, and all these facilities play a major and highly visible function in the developmental process of the nations (Kheni, Gibb, & Dainty, 2008). The government acts as the sponsors, regulator, client, users and arbitrator to the construction industry. Licensing requirements, financial institution operating rules, safety legislation, building and related codes, serves as a regulatory environment in which the industry operates (Kheni et al., 2008). (Kheni et al., 2008) further stated that have over 55% of all investment on provision of physical facilities which are infrastructures needed for the economic development of the nations. The effect of this is seen in the amount of employment demands met in the developing countries by the construction industry which amount to between 2% to 6% and other subsidiary activities providing an additional 2% to 4%. On the other hand, the figure stands between 6% to 10% and 4% to 6% respectively in developed countries (Okeola, 2009). The wide influence of the construction industry is therefore no pushover in satisfying the physical, social and economic needs of a nation and also has a significant contribution to the attainment of national goals.

Construction projects has great influence on the economy of any nation. Abundance in wealth creation, enhanced standards of living and socio-economic development are the some of the benefits of successful completion of construction projects. Countries are assessed as "developed", "developing" and "underdeveloped" grounded on the number and worth of successful construction projects in their domain (Okeola, 2009). The key role of construction sector in aggregate economy has been widely highlighted in the literature. It is stated that

there is a direct relationship between construction output and national output. It is also pointed out that the construction output grows more rapidly than national output when economy grows and vice versa World Bank (2004). This implies that the construction sector is highly integrated with other sectors of the economy through both backward and forward linkages and strongly linked with many economic activities. These linkages are stems for the sector through which it generate higher multiplier effect in the economy (Aibinu & Jagboro, 2002). So that any change in the construction sector will affect other sectors of the economy and finally impact goes to national income. Hence the construction industry is often considered as an engine of economic growth specifically in developing economies (Aibinu & Jagboro, 2002). The construction industry can activate and successfully consume locally produced material and manpower, maintenance of buildings and infrastructures to motivate local employment and improve economic efficiency (Aibinu & Jagboro, 2002). Construction sector thus has a great impact on socio-economic development of a country and this implies that the performance of the construction industry in terms of its products and activities have significant effects on the life of the nation. Therefore, a need to ensure good performance of construction projects and construction professionals.

### 3. RESEARCH METHODOLOGY

A random technique was used for the research with construction clients, construction professionals in contracting firms, consulting firms and government establishments as the targeted population. Questionnaires were self-administered to contractors, consultants and professionals in building industry and were analyzed using Statistical Packages for Social Sciences (SPSS). Questionnaires distributed for this research were designed in two sections. Section A contains demographic information of respondents while Section B has four (4) parts, the first part examined the factors that affect the performance of construction projects, the second part looked at the measures of construction project performances, the third part evaluated the indices of economic development while the last part assessed the effect of construction project performances on the economic development of Nigeria. A total number of 200 questionnaires were administered, 164 were returned, and 148 completely filled and fit for analysis. Mean Item Score (MIS) and Standard Deviation (SD) were calculated for each of the factors and the results were used to rank and determine their importance.

### 4. FINDINGS AND DISCUSSION

From table 1, 87.8% of the respondents are either working in consulting firms, contracting firms or government organizations and also shows that majority of the respondents are contractors.

**Table 1. Respondents' Information**

<b>Factors</b>	<b>Professions</b>	<b>Frequency</b>	<b>Percent (%)</b>
Type of Organization	Not specified	18	12.2
	Contracting	60	40.5
	Consulting	26	17.6
	Government	44	29.7
	<b>Total</b>	<b>148</b>	<b>100.0</b>
Profession	Quantity Surveyor	28	18.9
	Architect	26	17.6
	Builder	18	12.2
	Civil Engineer	44	29.7
	Contractor	14	9.5

	Client	18	12.2
	<b>Total</b>	<b>148</b>	<b>100.0</b>
Years of Experience	1-5	24	16.2
	6-10	20	13.5
	11-15	22	14.9
	16-20	54	36.5
	21-30	20	13.5
	31-above	8	5.4
	<b>Total</b>	<b>148</b>	<b>100.0</b>

87.8% of the respondents are professionals while the remaining 12.2% are clients of the construction industry. Majority of the respondents have up to twenty years work experience with only a few with higher years of experience. However, all the respondents are certified members of their respective professional body. Analysis of factors affecting construction project performance are highlighted in table 2. Four groups of variables were considered, that is, cost, time, productivity and quality. It could be observed that under cost factor, project design cost was ranked first with MIS of 4.36 and SD of 0.865, followed by cost of rework which was ranked second, waste rate of materials was ranked third while profit rate of project and cost of variation order was ranked fourth and fifth respectively. It can also be deduced from the table that project complexity was ranked first under productivity factor, sequencing of work according to schedule was ranked second while management-labour relationship was ranked third and number of new projects/year was ranked fourth.

**Table 2. Factors Affecting Construction Project Performance**

<b>Factors</b>	<b>Mean score</b>	<b>Standard Deviation</b>	<b>Rank</b>
<b>Cost Factors</b>			
Project design cost	4.36	0.865	1
Cost of rework	4.12	0.581	2
Waste rate of materials	3.87	0.492	3
Profit rate of project	3.72	0.513	4
Cost of variation order	3.39	0.554	5
<b>Productivity Factors</b>			
Project Complexity	4.31	0.480	1
Sequencing of work according to schedule	3.66	0.404	2
Management-Labour relationship	3.24	0.436	3
Number of new projects per year	2.91	0.567	4
<b>Time Factors</b>			
Unavailability of Resources	4.78	0.398	1
Average delay in regular payment	4.04	0.428	2
Time needed to rectify defects	3.75	0.555	3
Planned time for construction	3.52	0.402	4
<b>Quality Factors</b>			
Quality of equipment and raw materials	4.88	0.258	1
Unavailability of competent staffs	4.57	0.338	2
Conformance to specification	1.81	0.512	3
Quality assessment system in organization	1.48	0.448	4



However, under time factor, unavailability of resources was ranked first as the factor affecting time performance of projects while average delay in regular payment was ranked second, time needed to rectify defects was ranked third and planned time for construction was ranked fourth by the respondents while quality of equipment and raw materials was ranked first while unavailability of competent staffs was ranked second, conformance to specifications was ranked third and quality assessment system in organization was ranked fourth by the respondents under quality factor. It can be generally deduced therefore that quality of equipment and raw materials, lack of competent staffs, delay in payment of workers, project complexity and project design cost are the most important factors affecting construction project performance.

As obtained in table 3, on-time completion was ranked first as the main measure of construction project performance with MIS score of 4.23 and SD of 0.963 while client satisfaction was ranked second followed by productivity which was ranked third. Cost was ranked fourth and resources management was ranked as the least factor to measure construction performance.

**Table 3. Measures of Construction Project Performances**

<b>Factors</b>	<b>Mean score</b>	<b>Standard Deviation</b>	<b>Rank</b>
On-time completion	4.23	0.963	1
Client satisfaction	3.94	0.642	2
Productivity	3.72	0.749	3
Cost	3.53	1.070	4
Resources management	3.22	0.652	5

It can be deduced from table 4 that improvement in technology is the most important indices of economic development, extension of infrastructure was ranked second with MIS value of 4.44 and SD of 0.608 while increase in employment opportunities was ranked third. Government expenditure was ranked fourth, urbanization was ranked fifth while utilization of natural resources was ranked sixth. Increase in export of finished goods was ranked seventh, trade diversification was ranked eighth while Increase in entrepreneurship and human rights were ranked ninth and tenth respectively.

**Table 4. Indices of Economic Development**

<b>Factors</b>	<b>Mean score</b>	<b>Standard Deviation</b>	<b>Rank</b>
Improvement in technology	4.72	0.829	1
Extension of infrastructures	4.44	0.608	2
Increase in employment opportunities	4.13	0.663	3
Government expenditure	3.86	0.551	4
Urbanization	3.38	0.289	5
Utilization of natural resources	3.03	0.755	6
Increase in export of finished goods	2.88	0.597	7
Trade diversification	2.82	0.472	8
Increase in entrepreneurship	2.44	0.618	9
Human rights	2.14	0.330	10

Table 5 shows the effect of performance of construction projects on economic development of Nigeria and it could be revealed that improvement in technology was ranked

first with MIS of 4.2 and SD of 9.57, extension of infrastructure was ranked second while increase in employment opportunities was ranked third. Urbanization was ranked fifth while utilization of natural resources was ranked sixth. Government expenditure was ranked seventh, while trade diversification and increase in entrepreneur were ranked eighth and ninth respectively.

In cost performance factors, it can be concluded that project design cost is actually the most effective factor that affect cost performance of projects, followed by cost of rework and waste rate of materials. The result obtained contradicts with what was observed by Aibinu and Odeyinka (2007) that waste rate of materials is one of the most essential elements to be considered by contractors when achieving cost performance. Also, Yasamis et al. (2002) obtained that cost of rework is the main factor that affects cost performance. In productivity performance factors, it is believed with the information given that project complexity has greater influence on the project performance, followed by sequencing of work according to schedule, management-labour relationship and number of new projects per year. The result align with Shen and Tam (2002), as project complexity affects the productivity performance of construction projects. The results from time factor shows that unavailability of resources was considered by the professionals to be the actual factor that affects time performance. The result is along the lines of that of Koushki, Al-Rashid and Kartam (2005) that unavailability of resources has direct effects on project performance most especially time. The results gotten for quality factor indicates that quality of equipment and raw materials is the major factor affecting quality factor of a project, followed unavailability of competent staff while conformance to specification and quality assessment system in organization was considered as the least of the factors affecting quality performance of a project.

**Table 5. Effect of Construction Project Performance on Economic Development**

<b>Factors</b>	<b>Mean score</b>	<b>Standard Deviation</b>	<b>Rank</b>
Improvement in technology	4.42	0.957	1
Extension of infrastructures	4.33	0.829	2
Increase in employment opportunities	3.81	0.656	3
Increase in export of finished goods	3.54	1.007	4
Urbanization	3.38	0.453	5
Utilization of natural resources	3.70	0.718	6
Government expenditure	3.29	0.968	7
Trade diversification	2.51	0.812	8
Increase in entrepreneur	2.22	0.638	9

From the above discussion, it can be deduced that on-time completion is the major measure to ascertain the level of performance of a construction project. This result agrees with Chan and Kumaraswamy (2002) that on-time completion if very important in measuring construction project performance. It was further stated that measurement of construction project performance can be made in the direction of speed of construction, construction time and time overrun. However, improvement in technology is the actual factor used in measuring the economic development of Nigeria. This result is in line with Aibinu and Jagboro (2002) while (Aibinu & Odeyinka (2006) obtained that Infrastructure is basic essential services that should be put in place to enable development to occur. In addition, effective construction projects brings about extension of infrastructure, improvement in technology, increase in employment opportunities and urbanization, and all these enhance rapid growth in economic development of a country.

## 5. CONCLUSION AND RECOMMENDATION

Ensuring good performance in construction projects involves all participating people and parties to be fully aware of their individual roles on the project. It stems down from how the clients is assured of what the intentions and goals are and effectively communicating the specific roles to the professionals, the designer whom will in turn, accurately represent it and on to the contractor whom will work with the available information and faithfully reproduce the requirement on the project site. However, to achieve good project performance practice and project effectiveness, all persons concerned must be fully involved and should not be limited to some specific persons. Also, the effective involvement of enforcement by government agency, regulatory bodies must be ensured. Without adequate effective enforcement by government agency and/or regulatory bodies and availability of proof of contractors' credentials for competence assurance capability to the client before awarding the contract, there will be a continued gap between the level of awareness and the performance of construction projects in the country which will definitely affect the economic development of the country. The outcome of this study is of great relevance to the construction industry. The study reveals that the bulk of the responsibility revolves between the owner of the project and the participating professionals in the construction project. Both needs to cooperate with the other to ensure the attainment of the same goal as their roles are inter-dependent. From the manufacturer of the building components to the contractors, consultants, and clients, the cooperation and working together of the parties involved would ensure that the desired performance of the project is attained.

It is recommended that human resources in the construction industry be improved through appropriate and unceasing training programs to enhance construction projects performance. By so doing, the workforce can be updated with increased knowledge and improve their familiarity with emerging and more effective project management processes and techniques. There is a hierarchy of relative importance concerning elements required for measuring construction project performances, all these elements have to be fully integrated by Nigerian professionals for effective project performance. Good governance remains an important national asset, its high time Nigerian government start practicing good corporate governance in order to achieve all the factors considered to be the indices of economic development. This study is useful not only for government agencies and parastatals concerned with physical development of the country but other participants in the construction industry. These include contractors, professionals, regulatory bodies and other stakeholders with indirect link to construction activities It is time Nigerian construction industry becomes a force worthy of reckoning on the international stage. In view of this, it is recommended that government should put all the identified factors and indices into consideration, most especially improvement in technology, extension of infrastructure, increase in employment opportunities as well as government expenditure and urbanization, as these are the main factors considered to enhance economic development of the country.

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