



## Perceived Quality of Projects in Gombe State by Lecturers and Project Managers

MUHAMMAD, Sa'ad Yidi

*Building Technology Education Department,  
School of Technical Studies,  
Federal College of Education (Technical), Gombe. Gombe State, Nigeria.*

### ABSTRACT

*This research work is titled "Perceived Quality of Projects in Gombe State by Lecturers and Project Managers". The study adopted a descriptive survey research design, the population comprised 20 respondents and purposive sampling was used. The study has 3 purposes, 3 research questions that are in line with the purposes, and one hypothesis was formulated. The study used mean to analyze the data collected for the 3 research questions and a t-test was used to test the null hypothesis. The findings of the study revealed that the lecturers and the project managers agreed that; Materials, tools and equipment, Cost of the Building project, Adherence to standards, Designer, and method of design, and Supervision of the construction work among others are the major determinants of Quality on construction project. The study also revealed that; Withdrawal of the license of any professional found wanting regarding defects in building construction projects, Introduction of awards of excellence for Quality Building Construction to professionals and artisans, and Training and retraining of professionals and artisans in the construction industries should be emphasized, Adherence to standard among others are some of the ways of improving Quality on Building Construction work. Lastly, recommendations were made.*

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### INTRODUCTION

The definition of quality depends on the people defining it; some view it as conformance to specification. Others view it as performance to standards or value paid for the price. According to Bamisile (2004) Quality is defined as the customer's needs and expectations which must be translated into clearly defined and measurable requirements for building construction projects. Battikha, (2002) opined that quality is a critical factor in determining project acceptance and resultant contractual payment levels. This has made participants in the construction industry to become notably conscious of the role of quality as an essential means to achieve client satisfaction and gaining competitive advantage in the industry. In an attempt to show the importance of quality in construction, Bello, Soyingbe and Akinwamide (2012) stressed that the growth of a nation and its

development status is generally determined by the quality of its infrastructure and construction projects.

Harris and McCaffer, (2001) also opined that quality management practices include all the means employed by managers in an effort to implement their quality policies. These activities include quality planning, quality control, quality assurance and quality improvement. For any construction work, there are factors that determine its success. Quality is one of the most important factors, and it determines the success of a project. Bowen, Cattel, Hall, Edward, and Pearl (2007) asserted that little evidence exists of successful project where the three project parameters have been balanced and there is a need to embrace time, cost and quality management as a human activity system.

Corresponding author: Muhammad, Saad Yidi.

✉ [saadyidi@gmail.com](mailto:saadyidi@gmail.com)

*Building Technology Education Department, School of Technical Studies, Federal College of Education, Technical, Gombe*

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### **Statement of Problem**

Building collapse today in Nigeria has become a topical issue, and this cannot be unconnected to the fact that the quality in most of the construction projects is thrown aside. This has been affirmed by Oyegbile, Tat, and Olutoge (2012) who revealed that over the last 10 years, the incidence of building collapse in Nigeria has become so alarming and does not show any sign of abating. Similarly, Longtau, Justina, Majidadi and Gillian (2016) stated that challenges exist of Poor construction quality requiring positive and prompt attention from stakeholders in the construction industry, and standards are not adhered to and that clients are, many a times, dissatisfied with projects executed. Stakeholders in the construction industry have different perception of quality control. This has contributed to the quality of construction projects in Nigeria leading to increasing cases of building collapse. Also Bowen, Cattel, Hall, Edward, and Pearl (2007) has shown that most construction project are procured on the basis of only two of these parameters i.e. time and cost and overlook the relative importance of quality. In a research by Bamisile (2004), he opined that Nigerian public at large, believe that most building projects fails to offer value for money, construction projects are said to cost too much, take too long to complete and too prone to failure. These problems of building failure and their likes therefore prompted the researcher to embark on this research on the topic "Perceived Quality of Projects in Gombe State by Lecturers and Project Managers".

### **Purpose of the Study**

The general purpose of this study is to find out the perceptions of lecturers of Building Technology Education in Federal College of Education (Tech.) Gombe, and Project Managers on Determinants of Quality on Building construction projects in Gombe state, specifically the study sought to:

1. Find out the Perceptions of Lecturers of Building Technology Education in Federal College of Education, (Technical), Gombe on the Determinants of Quality on Building Construction Projects in Gombe State.

2. Find out the Perceptions of Project Managers on the Determinants of Quality on Building Construction Projects in Gombe State?
3. Find out the Perceptions of Lecturers of Building Technology Education in Federal College of Education (Technical), and Project Managers in Gombe State on the ways of improving Quality on building Construction Projects in Gombe State.

### **Research Questions**

The following four research questions were posed to guide the study as follows:

1. What is the Perception of Lecturers of Building Technology Education on the Determinants of Quality on Building Construction Projects in Gombe State?
2. What is the Perception of Project Managers on the Determinants of Quality on Building Construction Projects in Gombe State?
3. What is the Perception of Lecturers of Building Technology Education and Project Managers in Gombe State on the ways of improving Quality on building Construction Projects in Gombe State?

### **Research Hypothesis**

In order to guide the study, a null hypothesis was formulated as follows:

**H<sub>01</sub>:** There is no significant difference between the opinions of Lecturers of Building Technology Education in Federal College of Education (Tech.) Gombe and Project Managers in Gombe state on the Determinants of Quality on construction projects in Gombe state.

### **METHODOLOGY**

The study adopted descriptive survey research design, the instrument used for data collection was structured questionnaire which was based on 5-point Likert scale, and contained 30 items. The population for the study comprised 7 project managers of 7 construction companies and 17 lecturers from building technology education department, federal college of education (technical) Gombe, Gombe state. Therefore the total population comprised of 24. Purposive sampling was used, that is; the entire population was used. For the 3 research questions, the data collected were analyzed using

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Corresponding author: Muhammad, Saad Yidi.

✉ [saadyidi@gmail.com](mailto:saadyidi@gmail.com)

Building Technology Education Department, School of Technical Studies, Federal College of Education, Technical, Gombe

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mean and standard deviation, and t-test was used to test the null hypothesis. Class limit and class interval were used to help in the decisions so as to accommodate all the decimals as follows; from 0.50-1.49 = Strongly Disagreed, from 1.50-2.49 = Disagreed, from 2.50-3.49 = Undecided, from 3.50-4.49 = Agreed and from 4.50-5.00 = Strongly Agreed. For the null hypothesis, if the value of t-cal is equal to or greater than the value of t-tab at 0.05 level of significance the null hypothesis is

rejected. On the other hand if the value of t-cal is less than the value of t-tab at 0.05 level of significance the null hypothesis is accepted.

## RESULTS

The results found from the data collected and the tested hypothesis was presented in tables, where the mean values and the decision taken on every item and the null hypothesis were clearly indicated.

**Table 1:** Mean of Perceptions of Lecturers of Building Technology Education on the Determinants of Quality on Building Construction Projects in Gombe State.

S/N	Items	Mean (x)	SD (σ)	Remarks
1.	Materials, tools and equipment	3.70	1.17	Agreed
2.	Cost of the Building project.	3.56	1.13	Agreed
3.	Adherence to standards	3.50	1.05	Agreed
4.	Designer and method of design.	3.60	1.14	Agreed
5.	Involvement of quality team	3.80	1.21	Agreed
6.	Method of Construction	3.70	1.17	Agreed
7.	Time taken for the construction project.	3.50	1.05	Agreed
8.	Supervision of the construction work	3.55	1.13	Agreed
9.	Laboratory test on materials	3.70	1.17	Agreed
10.	Training of the site operatives.	3.50	1.05	Agreed

Table 1 shows the Mean of perceptions of Lecturers of Building Technology Education in Federal College of Education, (Technical), Gombe on the Determinants of Quality on Building Construction Projects in Gombe state.

It was revealed that all the 10 items were agreed upon by the respondents as the major determinants of Quality on Building Construction Projects in Gombe State, with all the items having Mean between of 3.50 to 3.80.

**Table 2:** Mean of Perceptions of Project Managers on the Determinants of Quality on Building Construction Projects in Gombe State.

S/N	Items	Mean (x)	SD (σ)	Remarks
1.	Materials, tools and equipment	3.45	1.10	Undecided
2.	Cost of the Building project.	3.65	1.16	Agreed
3.	Adherence to standards	3.60	1.14	Agreed
4.	Designer and method of design.	3.50	1.05	Agreed
5.	Involvement of quality team	3.60	1.14	Agreed
6.	Method of Construction	3.75	1.19	Agreed
7.	Time taken for the construction project.	3.91	1.25	Agreed
8.	Supervision of the construction work	3.75	1.19	Agreed
9.	Laboratory test on materials	3.55	1.13	Agreed
10.	Training of the site operatives.	3.75	1.19	Agreed

Table 2 shows the Mean of perceptions of Project Managers on the Determinants of Quality on Building Construction Projects in Gombe state. The indicated that all except item 1 out of the 10 items were agreed upon by the

respondents as the major determinants of Quality on Building Construction Projects in Gombe State, with all the items having Mean between of 3.50 to 3.91. While item 1, that is; "Materials, tools and

Corresponding author: Muhammad, Saad Yidi.

✉ [saadyidi@gmail.com](mailto:saadyidi@gmail.com)

Building Technology Education Department, School of Technical Studies, Federal College of Education, Technical, Gombe  
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equipment”, the Project Managers are Undecided on it, with mean of 3.45.

**Table 3:** Mean of Perceptions of Lecturers of Building Technology Education and Project Managers in Gombe State on the ways of improving Quality on Building Construction Projects in Gombe State.

S/N	Items	Mean (x)	SD( $\sigma$ )	Remarks
1.	Withdrawal of license of any professional found wanting regarding defects in building construction project.	3.50	1.05	Agreed
2.	Introduction of award of excellence for quality building construction to professional and artisans.	3.85	1.23	Agreed
3.	Training and retraining of professionals and artisans in the construction industries should be emphasized.	3.60	1.14	Agreed
4.	Adherence to standard.	3.80	1.21	Agreed
5.	Selection of good designer and design.	3.75	1.19	Agreed
6.	Proper supervision of the construction work.	3.50	1.05	Agreed
7.	Laboratory test on materials.	3.55	1.13	Agreed
8.	Involvement of quality team	3.65	1.16	Agreed
9.	Time taken for the construction project.	3.45	1.10	Undecided
10.	Method of Construction	3.80	1.21	Agreed

Table 3 showed the Mean of perceptions of Lecturers of Building Technology Education in Federal College of Education (Tech.) Gombe and Project Managers in Gombe state on the ways of improving Quality on Building Construction Project in Gombe State. The findings revealed that all except 9 out of the 10 items were

agreed upon by the respondents as the ways of improving Quality on Building Construction Project in Gombe State, with Means of 3.50 to 3.85. While item 9 which is “Time taken for the construction project”, the respondents are Undecided on it, with mean of 3.45.

**Table 3:** t-test for the significant difference between the opinions of the Lecturers of Building Technology Education and Project Managers on the Determinants of Quality on Building Construction projects in Gombe state.

Respondents	N	X	SD	df	t-cal	t-critical	Decision
Lecturers	17	36.11	11.27	22	0.08	2.07	Accepted
Project managers	7	36.51	11.45				

The result for t-test on the difference between the opinion of Lecturers of Building Technology Education in Federal College of Education (Technical) Gombe and Project Managers in Gombe state on the Determinants of Quality on Building Construction projects in Gombe state shows that the value of t-calculated is less than the value of t- critical, this shows that there is no significant difference between the opinions of the Lecturers and that of Project Managers in Gombe state on the Determinants of Quality on Building Construction projects in Gombe state. This implied that the null hypothesis

was accepted, while the alternate hypothesis was rejected.

#### FINDINGS

The following are the major findings of the study:

1. The study revealed that; Materials, tools and equipment, Cost of the Building project, Adherence to standards, Designer and method of design, Involvement of quality team, Method of Construction, Time taken for the construction project, Supervision of the construction work, Laboratory test on materials and Training of the site operatives

Corresponding author: Muhammad, Saad Yidi.

✉ [saadyidi@gmail.com](mailto:saadyidi@gmail.com)

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- are agreed by the Lecturers and the Project Managers as the major Determinants of Quality on Building Construction Projects in Gombe State. While item 1 which is "Materials, tools and equipment", the Project Managers are undecided on it.
2. The study also revealed that; Withdrawal of license of any professional found wanting regarding defects in building construction project, Introduction of award of excellence for Quality Building Construction to professional and artisans, Training and retraining of professionals and artisans in the construction industries should be emphasized, Adherence to standard, Selection of good designer and design, Proper supervision of the construction work, Laboratory test on materials, and Involvement of quality team Method of Construction are agreed upon by the Lecturers and the Project Managers as ways of improving Quality on Building Construction in Gombe State. While on the item "Time taken for the construction project", the respondents are Undecided on it.

### DISCUSSION ON THE FINDING

The findings of this study revealed that Materials, tools and equipment, Cost of the Building project, Adherence to standards, Designer and method of design, Involvement of quality team, Method of Construction, Time taken for the construction project, Supervision of the construction work, Laboratory test on materials and Training of the site operatives are agreed by the Lecturers of Building Technology Education in Federal College of Education (Technical) Gombe and the Project Managers as the major Determinants of Quality on Building Construction Projects in Gombe State. This agrees with the findings of Senthil, Doddurani, Shobana and Kalidhass (2016) who Identified Factors affecting quality on Building Construction Project to include; Design codes & standards, Financial issues, Materials and equipments, Inspection, Method of execution. This also agreed with the findings of Ian (2014), who found the barriers to Project Quality in the Firm to include; Lack of effective

supervision, Lack of proper equipment available for use, Lack of a Quality Assurance team to lead the process, thereby setting unrealistic deadlines.

The study also revealed that; Withdrawal of license of any professional found wanting regarding defects in building construction project, Introduction of award of excellence for Quality Building Construction to professional and artisans, Training and retraining of professionals and artisans in the construction industries should be emphasized, Adherence to standard, Selection of good designer and design, Proper supervision of the construction work, Laboratory test on materials, and Involvement of quality team and Method of Construction are agreed upon by the Lecturers of Building Technology Education in Federal College of Education (Technical) Gombe and the Project Managers in Gombe state as ways of improving Quality on Building Construction in Gombe State. This finding is in line with recommendations given by Ian (2014) who recommended that; Managers of the various construction firms should be encouraged to used quality management techniques in the execution of projects, Encouraging the integration of quality management practices and ensuring quality system are well instituted, Construction companies should employ quality officers as part of their integrated teams in the management of their projects, Construction firm should institute training procedures or refresher courses in quality management as part of their annual plan for their employees. It is also in line with findings of Senthil, Doddurani, Shobana and Kalidhass (2016) who stated that; the following recommendations are very helpful to attain the best quality in construction, thus are; All the labours in the construction industry need to complete the work within the prescribed time, Resources play a major role in the field of construction, and the experience of the workers determines the quality of the job, Inspection and monitoring must be done to avoid mistakes in construction, Inventory level should be monitored to avoid shortage of materials during the work.

### CONCLUSION

This study worked on the Perceptions of Lecturers of Building Technology Education in and

Corresponding author: Muhammad, Saad Yidi.

✉ [saadyidi@gmail.com](mailto:saadyidi@gmail.com)

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Project Managers on Quality of Construction Projects in Gombe State. The drew conclusion that; Materials, tools and equipment, Cost of the Building project, Adherence to standards, Designer and method of design, and Supervision of the construction work among others are the major determinants of Quality on construction project. it was also concluded that; Withdrawal of license of any professional found wanting regarding defects in building construction project, Introduction of award of excellence for Quality Building Construction to professional and artisans, Training and retraining of professionals and artisans in the construction industries should be emphasized, Adherence to standard, Selection of good designer and design, Proper supervision of the construction work, Laboratory test on materials, and Involvement of quality team Method of Construction are the best ways of improving Quality on Building Construction Project in Gombe State

#### RECOMMENDATIONS

Based on the findings of the study, recommendations were made as follows:

1. License of any professional found wanting regarding defects in building construction project should be withdrawn.
2. There should be award of excellence for Quality Building Construction to professional and artisans.
3. Training and retraining of professionals and artisans in the construction industries should be emphasized.
4. Adherence to standard should also be emphasized.
5. There should be Selection of good designer and design of any Building Construction work.
6. There should be proper supervision of the construction work.
7. There should be laboratory test on materials before construction work commenced.
8. There should be involvement of quality team in any Building Construction work.

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Corresponding author: Muhammad, Saad Yidi.

✉ [saadyidi@gmail.com](mailto:saadyidi@gmail.com)

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