AN EXAMINATION OF THE FACTORS AFFECTING POOR PERFORMANCE OF CONSTRUCTION WORKERS IN BUILDING INDUSTRY

(A Case Study of Ilorin Metropolis)

BY:

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CERTIFICATION

This project has been read and approved by the undersigned on behalf of the Department of Building Technology, Institute of Environmental Studies as meeting the requirement for the award of (HND) Higher National Diploma in Building Technology.

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ABSTRACT

This study was intended to study an examination of the factors affecting poor performance of construction workers in building industry.

This study was guided by the following objectives; To identify factors contributing to poor performance among construction workers, Asses impact of this factors on project outcome, To propose strategies to improve workers productivities and performance.

The construction industry is one of the largest industries in Nigeria. But the majority of the construction projects have suffered from delays. Lower than expected labor productivity has been a frequent cause of delay in construction projects. Although measuring labor productivity is easy and straightforward, controlling it is often not so. This study makes on attempt at identifying top factors that influence labor productivity. The uniqueness of this research is that it is one of the very few attempts in capturing the perception of construction workmen directly, instead of managers or supervisions. The results should be useful for construction project managers in improving labor productivity at their sites. A survey of construction workmen has been conducted to gauge their perception of what influences their efficiency at work. Therefore, the population of a study was made up of total members of stall in the organizational. The total population of this research work is seventy of workers in Ilorin Metropolis. A sample occurs when a number of sampling units are drawn from a population and possible to cover the include population of the study, seventy respondents were selected as the sample size. The sample random selection method was used. This is done for fair representation of people within the selected areas. In relation to the factors with lower influence on employee performance these are: overcrowded work areas, crew interference, lack of on-site cleanliness, inspection delays and poor materials quality. Even though with a slight effect, a new negative factor appears in this research: lack of on-site cleanliness. In relation to poor materials quality, its lower value could be related to the increase in national regulations related to EC quality control requirements directed to construction materials manufacturers.

DEDICATION

This project specially dedication to Almighty God for His love, protection, guidance and supports for me especially in my academic career. Also, to my beloved parents for their care and full support during my course, may Almighty God bless them abundantly (AMEN).

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The construction industry has a high impact on the economy of any country (Leibing2011). However, the construction industry is getting to be more and more complicated because of the construction process itself and the large number of parties involved in the construction project (i.e. clients, users, designers, regulators, contractors, suppliers. subcontractors and consultants) (Mohamed, Briand, and Maida 2012).

In general, the performance in construction projects is considered to be the indicator for the project management success or failure. In construction project, four determinants are used to measure the performance, namely:

1) The quality of the work?
2) The delivery of project on time?
3) Project completion within the estimated budget?
4) Level of client's satisfaction.?

A project may be regarded as a successful Endeavour when it satisfies the cost, Lime and quality limitations. However, the history of construction industry Filled with construction projects that completed with cost overrun, time overrun and poor quality (Neoga 2008).

In Nigeria, 70% of the projects suffered delays in their execution according to the survey performed by Odeyinka and Yusuf (2020). Hundred percentage of road construction projects in Palestine suffered from delay and cost diverge (Mohamed and Briand 2012.

Mohamed et al. 2012).

The construction industry is one of the largest industries in Nigeria. But the majority of the construction projects have suffered from delays. Lower than expected Worker productivity has been a frequent cause of delay in construction projects. Although measuring Worker productivity is easy and straightforward, controlling it is often not so (Cheng et al. 2011).

This study makes an attempt at identifying top factors that influence Worker productivity using Ilorin Metropolis as a case study. The uniqueness of this research is that it is one of the very few attempts in capturing the perception of construction workmen directly. Instead of managers or supervisors. The results should be useful for construction project managers in improving Worker productivity at their sites Mbachu and Nkando (2017).

Kim et al (2008) A survey of construction workmen has been conducted to gauge their perception of what influences their efficiency at work. The factors identified this way were ranked using the Relative Importance Index (RI) method from the level of importance assigned by the respondents on a 0-3 scale.

Puspassari (2005) Furthermore, a survey of managing engineers. who are involved directly with construction Worker in producing construction works, has been used to identify the measures to improve Worker productivity at the site. These factors were also ranked based on their effectiveness rated by the participants of the survey using RI. These measures identified in the second phase of the study were mapped with the factors they mitigate. These results should assist project management teams to extract the optimum amount of work from construction Worker. They can use the measures

recommended in this study proactively to keep productivity at optimum levels and also identify the early signs of deteriorating productivity.

1.2 Statement of Problem

As Worker productivity improvement is a very important issue, many associations, institutions and researchers in developed countries have performed various researches and experiments to find out the factors that directly affects the Worker productivity in construction industry. Their prime target is to find out and clarify these factors and to find out remedial measures to lessen their affects in Worker productivity to improve construction productivity and efficiency. But some of the steps they have taken cannot be appropriately applicable in developing countries like Ilorin metropolis. For example, in the developed countries, the engineers have developed software called Smart Plant Construction, which allows the user to drag and drop components from 3-D model into a work package. These types of software automatically calculate man hours based on preconfigured rules of progress, along with drawings and materials. Also the users can filter materials in the 3-D model in the software to visualize if any materials are needed and required materials are available. It also shows the availability of materials on site, warehouse or in transit (Whitepaper; September, 2007). But in Ilorin metropolis, these types of advanced technologies and sophisticated technologies are not widely available. Also the socioeconomic conditions of this country prevent us from taking or adopting various steps or measures that may make Worker productivity more efficient and economic. Moreover, the working environment at construction sectors in this country is also very unpleasant and inadequate. As a result, it can't help the overall project to produce an efficient outcome.

Again, it goes through different weather conditions throughout the time of a year. This change also affects the Worker productivity. So the factors they have identified might be different than the factors affecting Worker productivity in our country.

1.3 Aim of the Study

The aim is to determine the factors that affect the poor performance in workers in building industry.

1.4 Objectives

Objectives are stated below;

i. To identify factors contributing to poor performance among construction workers

ii. Asses impact of this factors on project outcome

iii. To propose strategies to improve workers productivities and performance.

1.5 Research Questions

The following research questions will be answered in the course of this study

i. What are the identify factors contributing to poor performance among construction workers

ii. What are the impact of this factors on project outcome?

iii. What are the strategies to improve worker's productivity and performance?

1.6 Significant of the Study

This study could be used in solving problem that arise as a result of high poor productivity in Construction Industry. It exposes the researcher to different materials and method of construction available in the industry in other to improve the productivity in Construction Industry. It will enable the industry to known how to improve in its services as per finding alternative approach in solving the problem at hand.

1.7 Scope of Study

The study will focus on identifying factors affecting Worker productivity of construction workers in Nigeria using Ilorin Metropolis as a case study. Specifically, the study will focus on Worker in building construction. Though different construction works (e.g. building constructions, roads and highways, bridges and culverts. dams and barrages. heavy industry and so on) may have different factors that affect Worker productivity, some factors are common in all construction works. Moreover, building construction is the most common type of construction work in Nigeria and it is also a major part of the whole construction industry in our country. Hence, we have chosen this sector for our study. It will also give an overall scenario about the constraints in Worker productivity in the construction sector in Nigeria.

1.8 Limitation of Study

i. The time limit given for the project by the school Authority has limited a wide research on such topic.

ii. Fund to run some expenses for the project is not sufficient which has restricted a wider study

iii. People did not want to divulge information needed for the study because they though the exercise is meant for tax assessment.

1.9 Definition of Terms

Contractor Performance: is defined to embrace construction cost, construction time, construction quality and sustainable development, the philosophy being that the achievement of one aspect of performance should not be at the expense of another.

Performance: commonly refers to the carrying out of works according to requirements set out in a contract. Performance requirements might include: Progressing the works in line with the programme. Completing the works by the completion date.

Construction Project: sometimes just referred to as a 'project is the organized process of constructing, renovating, refurbishing, etc. a building structure or infrastructure

Facility: Facility can be defined as something that is build, installed or established to serve a particular purpose or something that makes action operational or complement an action. It is also defined as circumstanced equipment etc that make it possible or easier to do something.

Development: Development means the process of carrying out construction works which are associated with a change in use of land or with its building or with a change in the intensity of the use of land or with the res-establishment of an existing use (Michael 2012).

CHAPTER TWO

2.1 Review of Related Literature

Increase of productivity was calculated prior to mid-1906's, in the construction industry. Later, decline in productivity has remained of great concern issue in the construction industry all over the world. In 1968, the Construction Roundtable was established due to concern about the increased cost of construction resulting from an increase in the inflation rate and a significant decline in construction productivity. Also in 2012. The United Nations Committee on Housing, Building, and Planning (UNC) published a significant manual concerning the effect of repetition on building operations and processes. The research discovered the necessity for a rise in productivity was perhaps more severe in the construction sector compared to any other sector. It was necessary to implement, as far as possible, industry-wide principles of production throughout the construction process. Though, it was known that careful adaptation would be required to implement the knowledge and experience gained in the manufacturing industry to the building construction industry (Darko,E, 2017).

Past studies and research show the number of factors affecting productivity, there are still anonymous factors need to be further studied even in developed countries. A study by (Polat 2015) stated that policies to rise productivity are not always similar in each country Their study identified different factors affecting labor productivity and grouped them according to their characteristics such as, design, execution plan, material, equipment, labor, health and safety, supervision, working time, project factor, quality, leadership and coordination, organization, owner/consultant, and external factors.

(Hämäläinen, 2020) Classified the productivity factors causing low productivity as industry related factors, labor-related factors, and management-related factors.

Industry-related factors, essentially, are the characteristics of the construction industry, such as the uniqueness of construction projects, varied locations, adverse and unpredictable weather, and seasonality. Labor-related factors include the union's influence, little potential for learning and lack of motivation. Management-related factors usually refer to a lack of management for tools or techniques.

(Gibb et al. 2016) Classified the productivity factors into two categories: external factors the ones outside the control of the organization management and internal factors related to the productivity factors originating within the organization. From their viewpoint, the nature of the industry, usually the separation of design and construction functions, has affected construction productivity through delay in drawings, design changes, and following rework. Construction clients have sometimes been obstructions to construction productivity because of their lack of suitable knowledge about construction procedures. Moreover, being an outdoor industry, construction performance is extremely affected by weather conditions In addition to the factors disused, health and safety regulations, and codes of practices are other external factors influencing task operations and productivity. In the internal category. Management inadequacies could result in a waste of resources with consequent losses in productivity; adoption of modern technology and training for the laborer would increase productivity

(Murie, et al., 2017) Built an ideal to describe the factors affecting labor productivity In the model, two groups of factors determine the productivity performance, work environment, and task to perform. Work-environment factors refer to how well a job is organized and accomplished. Work to be done or work content, relates to work

required to perform and includes physical components of work, specification requirements, and design details.

Past study showed that task to be completed could affect the labor resources by as much as 15%, whereas work environment can affect labor requirements by an extra 25%.Based on this factor model, more detailed research was done. One study suggested that scheduled overtime always leads to efficiency losses because of the inability to deliver materials, tools, equipment, and information at an accelerated rate (Ginther, 2016).

Surveys and interviews are standard methods that have already been adopted in many productivity studies. (Durdyev, 2017) Conducted a survey of top construction contractors to identify the factors affecting productivity in Singapore. The three items of extreme concern were identified as difficulty in the recruitment of supervisors, difficulty in the recruitment of labors, and a high rate of labor turnover. (Boadu, et al, 2019) undertook a questionnaire of superintendents and project managers to determine all possible factors affecting productivity. An interview conducted with contractors showed that weather and material delivery were the main adverse factors for site productivity. A questionnaire identified rework. Material problems, tools, heavy-equipment availability, crew interference, overcrowded work areas. Instruction, quality-control inspection, and management interventions as the main factors affecting craftsman productivity and motivation.

Another survey with construction personnel (Osei. 2013) was conducted to gauge their opinion about the field of construction, specifically their knowledge about the factors that most affect construction productivity. As a result, a set of comprehensive

factors was identified and classified into six groups: contract environment, planning, site management. Working conditions, working hours, and motivation.

Construction industry is considered to be one of the riskiest and complex industries. However, it plays a major role in the development and achievement of society goals. It is one of the largest industries and contributes to about 10% of the gross national product (GNP) in industrialized countries (Navon 2015). In construction projects, Ajayi (2010) found that the most suitable performance yardsticks to ensure that the project has been performed adequately are: the quality of work, the delivery of the project on time, the productivity rate of the contractor and project completion within the estimated budget (Ajayi 2010). Many of investigated literatures on construction projects suggested that the common critcria for project management success are generally considered to be cost, time and quality (Alhallag2003; Al-Najjar 2008; Arditi, Koksal, and Kale 2000; Frimpong, Oluwoye. and Crawford2003; Nega 2008).

In a study conducted by Ajayi (2010) to highlight the factors affecting the performance of contractors on construction projects within Lagos State. Nigeria form contractors perceptions through a questionnaire survey, it was concluded that the most significant factors are: site conditions, complexity of project, lack of subcontractor's experience, communication between project parties, lack of labours' experience and poor material quality.

Long et al. (2014) grouped the problems of construction projects performance into five groups:

1) Incompetent designers/ contractors.
2) Poor management skills.
3) Social and technological issues,

4) site-related issues,
5) improper techniques and tools.

Poor planning and lack of communication between project parties were concluded by many researchers as key factors negatively affecting performance in construction projects. Siveis et al. (2014) conducted a study to address the main causes of poor contractor performance on construction project in Jordan. They found that the top leading causes are: financial difficulties faced by the contractor, manpower shortage and excessive change orders.

In Gaza strip, the project parties (owners, consultants and contractors) were asked to fill a questionnaire that was developed to address the factors affecting contractor performance in construction projects. The survey was performed by Enshassi Mohamed, and Abushaban (2019) and they found that the main contributors to poor performance in construction proiect in Gaza: borders closure, lack of resources, leadership skills, change in material prices. lack of experience, poor equipment and poor materials quality. Mbachu and Nkando (2017) found that quality and attitude to service is a main factor leading to project management success in South Africa.

Wiguna and Scott (2015) conducted a study determine the factors of cost and time overrun in construction projects in Indonesia through a questionnaire survey. In 22 building construction projects under concern in their study, the contractors agreed on the top affecting factors, namely: high inflation, design changes, defective design, weather conditions and payments delay. Conflict, poor workmanship and incompetence of contractors were found to be among the factors leading to client dissatisfaction in South Africa (Hanson. Mbachu and Nkando 2013). Eighty-four contractors from the West Bank in Palestine were asked by Mahamid (2012) to identify the main factors affecting

contractors' business failure through a questionnaire survey. Forty-four factors were considered in the study and were listed under three groups:

1) financial,
2) managerial and
3) external.

Ile concluded that the top affecting factors are: escalation in construction material cost, payments delay, lack of experience, low margin of profit and political situation.

Frimpong, Oluwoye, and Crawford (2013) concluded the following factors to be among the main factors affecting time and cost performance in construction projects in Ghana: financial difficulties faced by contractor, poor management and poor technical performances. Koushki, Al-Rashid, and Kartam (2015) investigated the time and cost performance construction projects in Kuwait. Four hundred and fifty private residential project owners and developers have been randomly selected for personnel interview. They concluded that the main contributors to poor time and cost performance are related to owners namely: financial difficulties and lack of experience. In order to improve the performance of construction projects, they suggested the followings:

1) availability of adequate funds for project owner,
2) more attention should be paid for time and cost planning at the early stages of the project,
3) improve tender selection methods. To enhance performance in construction project,

Omran, Abdalrahman, and Pakir (2012) recommended improving the leadership skills of project team and leader.

Overall, the above studies demonstrate that poor performance is a global phenomenon in construction projects. Consequently, the improving of the performance in construction projects is an important priority. The above studies indicated that there are

many factors that might affect the different dimensions of project performance. As such, this study builds upon the performed studies to identify a comprehensive list of contributors to poor performance of construction projects and to address how each project party perceives the relative severity of these factors. Key project participants, including The government (policy-makers), owners, contractors, consultants, subcontractors, suppliers, labours, managers, engineers and researchers, could benefit from the findings and recommendations of this study. This knowledge can support the government in improving the projects environment to meet the market conditions; owners in planning and evaluating; contractors and managers in taking risks into consideration; consultants in preparing comprehensive bid documents; and labours in performing their activities.

2.2. Different Factors Affecting Labor Productivity from Previous Studies

Productivity is the outcome of several interrelated factors. Discussed below are various factors affecting labor productivity and are reviewed from past studies.

i. Time: During construction projects, there are many tasks which causes a loss of productivity. Past study shows productivity decreases with working overtime. The most frequently stated reasons are fatigue; increased absenteeism; decreased morale; reduced supervision effectiveness; poor workmanship, resulting in higher rework: increased accidents (Horner and Talhouni, 2016). Working overtime initially result in increased output, but continuing overtime may lead to increased costs and reduced productivity (Hinze, 2015). Time used by a construction laborer on productive activities averages about 30% of the total time available. An employee in the field only works effectively for 3.5 hours of his 8-hour shift and spends 20% of his time on direct value-adding activities (Alinaitwe et al., 2015).

ii. Schedule Compression: When there are early delays in a project compressions of the overall time frame for a later activity are often the way to compensate interruptions and to complete the assigned task on schedule. From a professional scheduling perspective, schedule compression may be possible without accelerating individual work activities by utilizing float in the project's overall schedule. However, on many projects, schedules are not fully resource loaded. As a consequence, a properly updated schedule reflecting the delays may show the project finishing on time without shortening individual activities. Schedule compression may result to force extra labors for the desired task by the contractor because of shortening the overall duration, allowing the contractor to complete the total remaining work.

Schedule compression, when linked with overtime, often results in major productivity losses due to shortages of material tools or equipment to support the extra labor's resulting in difficult for planning and coordinating the task, and unavailability of experienced labors (National Electrical Contractors Association, 2015).

iii. Type of Project: To accomplish substantial productivity every member of a crew requires adequate space to perform task without being affected with/by the other crew members. When more labors are allotted to perform particular task, in a fixed amount of space, it is probable that interference may occur, thus decreasing productivity.

Additionally, when multiple trades are assigned to work in the same area, the probability of interference rises and productivity may be reduced. Interference among the various crews and laborers is due to mismanagement on construction sites. For example, a steel-fixture crew has to wait before fixing the reinforcement rods if the carpenter's

framework is incomplete. The types of activities and construction methods also influence labor productivity (Sanders and Thomas, 2011).

iv. Safety: Accidents have high impacts on labor productivity. Various accident types occur at the site, such as an accident causing death and resulting in a total work stoppage for a number of days. An accident that causes an injured person to be hospitalized results in a work decrease of the crew for which the injured employee worked. Small accidents resulting from nails and steel wires can stop work and, thus decrease productivity (Sanders and Thomas, 2016. Even insufficient lighting shows decreased productivity because sufficient lighting is required to work efficiently and because insufficient lighting has negative effects. Employing a safety officer helps labors to recognize the required safety regulations and to follow them which can reduce the number of accidents, thus increasing productivity.

v. Quality: Inefficiency of equipment and poor quality of the raw material are factors which cause low productivity. The productivity rate of inefficient equipment is low.

Old equipment is subject to a great number of breakdowns and it takes a long time for the laborers to complete the work, thus reducing productivity. Poor-quality material used for work is the other factor because poor materials generally lead to unsatisfactory work and can be rejected by supervisors, thus reducing the productivity.

vi. Managerial Factors: Managers skill and attitudes have a crucial bearing on productivity. In many organizations, productivity is low even though the latest technology and trained manpower are made available. Low productivity is because of inefficient and indifferent management. Experienced and committed managers can obtain surprising

results from average people. Employees job performance depends on their ability and willingness to work. Management is the catalyst to create both.

Advanced technology requires knowledgeable laborers who, in turn work productively under professionally qualified managers. It is only through sound management that optimum utilization of human and technical resources can be secured.

vii. Manpower Group: Literature shows that a lack of labor experience is the factor which negatively affects labor productivity and proves that, to achieve good productivity, labor plays a significant role. Contractors should have sufficiently skilled laborers employed to be productive. If skilled labor is unavailable and a contractor is required to complete specific task with less-skilled labor, it is possible that productivity will be affected. The absence of any crew member may impact the crew's production rate because workers will, typically, be unable to accomplish the same production rate with fewer resources and with a different crew member.

Misunderstanding among laborers creates disagreements about responsibilities and the work bounds of each laborer, which leads to a lot of work mistakes and decreases labor productivity. Lack of compensation and increased laborer age negatively affect labor productivity because labor speed, agility, and strength decline over time and reduce productivity (Heizer and Render, 2015).

viii. Motivation: Motivation is one of the important factor affecting construction labor productivity. Motivation can best be accomplished when labors personal ambitions are similar to those of the company. Factors such as payment delays a lack of a financial motivation system, non-provision of proper transportation, and a lack of training sessions are grouped in this topic (DeCenzo and Holoviak. 2016).

ix. Supervision: Generally, projects come across some design drawings and specification changes during construction. If drawings or specifications are with errors and unclear productivity is expected to decrease since laborers in the field are uncertain about what needs to be done. As a result, task may be delayed, or have to be completely stopped and postpone it until clear instruction. There is a 30% loss of productivity when work changes are being performed (Thomas et al., 2016). Work inspection by the supervisor is an essential process to proceed. For example the contractor cannot cast concrete before an inspection of the forms work and steel work thus affecting labor productivity (Zakeri et al. 2016). With non-completion of the required work according to the specifications and drawings, supervisors may ask for the rework of a specific task. Supervisors absenteeism stops the work totally for activities that require their attendance, such as casting concrete and backfilling, further delaying inspection of the completed work which, in turn, leads to delays in starting new work.

x. Material/Tools: Material management is one of the most important factor in construction industry. Productivity can be affected if required materials tools, or construction equipment for the specific are not available at the correct location and time.

Selection of the appropriate type and size of construction equipment often affects the required amount of time it is, therefore, essential for site managers to be familiar with the characteristics of the major types of equipment most commonly used in construction. In order to increase job-site productivity, it is beneficial to select equipment with the proper characteristics and a size most suitable for the work conditions at a construction site. Laborers require a minimum number of tools and equipment to work effectively to complete the assigned task. If the improper tools or equipment is provided, productivity

may be affected (Alum et al., 2016). The size of the construction site and the material storage location has a significant impact on productivity because laborers require extra time to move required materials from inappropriate storage locations, thus resulting in productivity loss.

xi. Project Management Factors: Improper scheduling of work, shortage of critical construction equipment or labor, may result in loss of productivity. Improper planning of project-initiation procedures generally leads to lost labor productivity.

Additionally, poor site layout can contribute to a loss of productivity. Laborers have to walk or drive a long way to lunch rooms, rest areas, washrooms, entrances, and exits, affecting overall productivity (Association for the Advancement of Cost Engineering (AACE) International Recommended Practice No. 25R-03. 2014).

xii. Natural Factors: Various natural factors affecting labor productivity collected from previous study are weather conditions of the job-site and geographical conditions.

Others factors such as fuel, water, and minerals also affect productivity to certain extent. Productivity is found to be highly affected if weather recorded are 100 be extreme (too cold, heavy rainfall, too hot.

xiii. External Factors: Weather conditions are significant factor to consider for completion of any construction project. Adverse winter weather, such as winds and rains, reduces productivity, particularly for external work such as formwork, T-shape work, concrete casting, external plastering, external painting, and external tiling.

Adverse weather sometimes stops the work totally (Sanders and Thomas. 2012)

xiv. Political Factors: Law and order, stability of government, etc. are essential for high productivity in the construction industry. The government's taxation policies influence willingness to work and expansion of plants. (A. Kumar, as cited in Desai, 2014).

2.3 Identification of Possible Factors Affecting Productivity in Building Construction

Based upon the Literature Review, this study extracts various factors affecting labor productivity in construction from the previous research studies. Some similar factors were merged together, and some new factors were added. Factors does not take into consideration any values. They are arranged on general criteria.

CHAPTER THREE

3.0 Research Methodology

"Survey research is defined as collection of different data by asking people questions (Fowler, 2016).

The data collection process used in this research had the option of two basic methods: questionnaires and personal interviews. A questionnaire was preferred as the best effective and suitable data-collection technique for the study. It was concluded that the questionnaire was described as a self-administered tool with web-design questions an appropriate response. A questionnaire in a web-survey format comparatively requires less duration and saves cost for the researcher while permits respondents to response the questionnaire at their personal ease. However, for this approach the reply rate is usually lower as compared to face-to-face interviews. Data was collected from literature reviews from books, journals, articles, seminar conferences, and websites which emphasize building construction's labor productivity. A survey was given to employees from different trades involved with the construction project.

3.1 Research Design

Research design is defined by S. Donald as the specification of producers for couching and analyzing the data necessary to help solve the problem at hand such that the difference between the cost of obtaining various level of accuracy and the expected value of the information associated with each level of accuracy is maximized.

Research design is an overall frame-work upon which this research work is based. It is also known as the master plan within which the various data gathering tools are used. Therefore, the research design used for this project is "sample survey". Sample survey is used to get the necessary information and conclusion without wasting much time. The

result collected through the design are represented quantitatively and this desired information's obtained by questioning directly the members of the group which is being studied.

3.2 Population of the Study

This can be defining as the total number of people living in a particular country or geographical area at a particular time. Therefore, the population of the study was made up of total members of staff in the organizational. The total population of this research work is 70 of workers in Ilorin Metropolis.

3.3 Sample of Data Collection

A sample occurs when a number of sampling units are drawn from a population and possible to cover the include population of the study, 70 respondents were selected as the sample size. The sample random selection method was used. This is done for fair representation of people within the selected areas.

3.4 Method of Data Collection

The purpose of data collection procedure is to get data for the problem defined. Data collection consists of presenting a stimulus to a respondent or subject and recording his or her response.

Data is classified in the Primary and Secondary data. Primary data is collected specifically for the research needs at hand, secondary data on the other hand, are already published data collected for the purpose of other than specific research needs at hand. Secondary data can be very cheap and fast, since they can be readily gathered from published sources.

In this research work, both secondary and primary data are employed.

1. **Primary Data:** This has been recorded by an actual eye witness or participant in an event or the customer object which is available for examination. It is regarded as firsthand information that goes beyond what I was told. The source of primary data used by the researcher is the interview and observation method.

2. **Secondary data:** This has been recorded by someone who obtained his data indirectly even if he talked to an actual observer or an actual participant in an event. This information would still be regarded as coming from primary sources because of the information passed on from one person to the other causes distortion. Secondary data's less reliable than primary data. The sources of data used by the researchers are relevant to textbook, company newsletter, prospectus magazines and lecture notes.

3.5 Method of Data Analysis

Having administered the questionnaire to the appropriate respondents data are presented in tabular form showing the result of each question. Both qualitative and descriptive method was used in analyzing the data obtained.

The chi-square statistical method was employed in testing the validity and reliability of hypothesis formulated.

The chi-formula

$$X^2=\frac{\sum(oi-ei)\,2}{Ei}$$

Where Oi = Is answered frequency

Ei: is the expected frequency

$\sum$ is the summation

CHAPTER FOUR

4.1 Introduction

This chapter based on the analysis of the research questionnaire. Thus the questionnaire consists of twenty questions which was divided into two sections. Section one deal with the characteristic demographic of the respondents. Questionnaire was distributed. Collected collated and present in the tables below;

4.2. Data Presentation, Analysis and Interpretation

Section A

Table 4.2.1: Distribution of respondent by sex

Variable proportion	**No of Respondents**	**Percentages**
Male	53	85
Female	17	15
Total	**70**	**100**

Source: Field work, 2025

From the table above, fifty-three (53) out of the seventy (70) respondents are makes and this is representing eighty-five percent (85%) of the respondents, this indicate that the make gender is somewhat more innovative the environment compared with their female counterparts representing seventeen (17) out of the seventy (70) respondents which made up of fifteen percent (15%).

Table 4.2.2: Ages of Respondents

Variable proportion	No of Respondents	Percentages
18-27	10	40
28-37	15	30
38-47	20	20
48 above	25	10
Total	**70**	**100**

Source: Field work, 2025

From the table, we can see that most of these respondents are within the range of twenty-eight (28) to thirty-seven (37) i.e. 40% this shows that majority of the respondents are relatively young in age, they are age that is they think quickly and fact and at the same time they are dynamic in relation with the change in the environment. Also from above. We can see that twenty-five (25) out of the seventy (70) responses fall within forty-eight above (48) years and representing ten percent (10%).

Table shows that the thirty-five (35) people i.e. forty percent (40%) believe that there are factors around which under or aid the achievement of the organization objective.

Table 4.2.3: Marital Status of Respondents

Variable proportion	No of Respondents	Percentages
Single	30	70
Married	40	30
Total	**70**	**100**

Source: field work 2025

From the table we can see that forty (40) out of the seventy respondents are married people which represents thirty percent (30% and it means that they have more

responsible matured minds in the organization to implement and formulate strategy which (30) of the seventy respondents are single and represent seventy percent (70%).

Table 4.2.4: Academic Qualification of Respondents

Variable proportion	No of Respondents	Percentages
O level	5	5
OND	10	10
HND	15	15
B.sc	20	35
Others	20	35
Total	**70**	**100**

Source: Field work, 2025

Table shows the qualifications of the works and out of the seventy (70) responses. Twenty (20) people have (B.sc) qualification representing thirty-five percent (35%) this means that this function in the organization is important and should have handled by expert. Also we have five (5) people with O' Level qualification which represent 5% because this function is peculiar to the highly skilled workers in an organization other like OND with ten (10) responses and ten percent (10%) HND with fifteen (15) and formulation and implementations of strategies in their own field.

Table 4.2.5: Department of Respondents

Variable proportion	No of Respondents	Percentages
Administration	10	15
Suppliers	20	35
Workers	40	60
Total	**70**	**100**

Source: field work 2025

From the table we can see that forty (40) out of the seventy respondents are workers People which represents thirty percent (60%) and it means that they have more responsible matured minds in the organization to implement and formulate strategy which (20) of the seventy respondents are suppliers and represent seventy percent (35%).

Section B

Table 4.2.6: Does the environment stimulate the formulation of strategy in your environment?

Variable proportion	No of Respondents	Percentages
Yes	50	73.33
No	20	26.67
Total	**70**	**100**

Source: Field work, 2025

Table, shows that 50 out of the 70 respondents believed that environment stimulate the formulation of strategy in their organization and this indicates 73.33% whereas 8 respondents believe that the environment does not stimulate the formulation of strategy in the organization they represented 26.67%.

Table 4.2.7: How often do you analyze the environment to know the threat, opportunities, strength and weakness faced by your organization?

Variable proportion	No of Respondents	Percentages
Monthly	15	10
Quarterly	15	20
Bi-annually	20	25
Yearly	20	45
Total	**70**	**100**

Source: Field work, 2025

From the table, twenty (20) out of the seventy respondents believed that the environment is analyzed yearly which represents fourty-five (45) percent while fifteen (15) respondents believed that is done monthly and quarterly respectively. And these represent 10percent (10%). While the remaining 20 is saying that the environment is analyzed bi-annually and it represent twenty-five percent 25%.

Table 4.2.8: Are there other factors around that affect employee productivity in your industry?

Variable proportion	No of Respondents	Percentages
Yes	45	83
No	25	17
Total	**70**	**100**

Source: Field work, 2025

From the value forty-five (45) respondents agree that there are many factors that has impact on the performance employee and this represent eighty-three percent (83%) whereas twenty-five (25) respondents are saying that no factor has impact on the performance of their organization and this represents seventeen percent.

Table 4.2.9: Does the time factor have impact on organizational performance?

Variable proportion	No of Respondents	Percentages
Yes	50	73.33
No	20	26.67
Total	**70**	**100**

Source: Field work, 2025

Table, shows that 50 out of the 70 respondents believed that time factor has impact on organizational performance and this indicates 73.33% whereas 10 respondents believe

that effective communication have impact on organizational performance they represented26.67%.

Table 4.2.10: What are the Factors that affect worker's performance in building industry?

Variable proportion	No of Respondents	Percentages
Manpower	40	60
Quality control	30	40
Total	**70**	**100**

Source: Field work. 2025

From the table, twenty (40) out of the seventy respondents believed that Manpower has impact on employee performance which represents fourth (60) percent While the remaining 30 is quality control analysis have impact on employee performance twenty-five percent 25%.

Table 4.2.11: How can the problem facing Worker in building Industry can be curbed?

Variable proportion	No of Respondents	Percentages
Increase Laborer	15	83
Staff Motivation	55	17
Total	**70**	**100**

Source: Field work, 2025

From the value forty-five (55) respondents agree that staff motivation will increases the employee performance and this represent eighty-three percent (83%) whereas 15 (17) respondents agreed that increases laborers in the industry will have impact on employee performance and this represents seventeen percent.

Table 4.2.12: What is the impact of Workers performance on building industry?

Variable proportion	No of Respondents	Percentages
Increase Productivity	50	73.33
Improve Industry Income	20	26.67
Total	**70**	**100**

Source: Field work, 2025

Table, shows that 50 out of the 70 respondents believed that Workers performance enhances productivity and this indicates 73.33% whereas 8 respondents believe that Workers Performance Improve industry income they represented 26.67%.

Table 4.2.13: How does worker's performance affect Building Industry?

Variable proportion

Variable proportion	No of Respondents	Percentages
Enhances Quality Delivery	45	65
Increases income	25	35
Total	**70**	**100**

Source: Field work, 2025

From the table, twenty (45) out of the seventy respondents believed that the worker's performance enhances quality delivery which represents 65 (45) percent while fifteen (25) respondents of 35 percent are of the idea.

From the table, twenty (20) out of the seventy respondents believed that the Communication is the means of transferring information within the manager and its subordinate which represents (30 percent while fifteen (15) respondents believed that is

non and they represent 15 percent (20%) not certain. While the remaining 20 is saying that the Communication is the means of transferring information within the manager and it's subordinate and it represent 20 percent.

4.3 Discussion of Findings

So far from the data gathered, presented and analyzed the researcher was able 10 examine and ascertain factors that affect the poor performance of a construction workers in building industry. The questions were presents in tabular form and findings from the above data are presented as follow.

From the data presented and analysis. It shows that many of the respondents agreed employee performance is important to the industry performance could be used to motivate workers.

CHAPTER FIVE

Summary, Conclusion and Recommendation

5.1 Summary of Findings

In relation to the factors with lower influence on employee performance these are: over crowded work areas, crew interference, lack of on-site cleanliness, inspection delays and poor materials quality. Even though with a slight effect, a new negative factor appears in this research: lack of on-site cleanliness. In relation to poor materials quality, its lower value could be related to the increase in national regulations related to EC quality control requirements directed to construction materials manufacturers. The qualitative research approach shows how Project Management Teams and Site Managers working for the constructing company have different points of view when planning and acting upon a productivity factor. For example, Project Management Teams do not seem to consider inspection delays, project changes and lack of project information, while, at the same time, they happen to be very important and out of control for Site Managers. This contradiction implies that there is potential for employee's productivity improvement through coordination among these construction professionals.

5.2 Conclusion

According to the quantitative analysis, construction productivity factors with stronger influence on site performance are the following: faulty works, equipment unavailability project changes during execution, materials unavailability, lack of project information and poor workmanship. Nevertheless, following qualitative results, some of these factors are not taken into account when carrying out the planning but are considered by site managers during on-site interventions. This is the case of faulty works, materials

unavailability project changes during execution and poor workmanship. Their impact on productivity is generally negative, even though in the case of project changes during execution, performance might improve if the alteration suggested allows a good execution.

5.3 Recommendation

Based on the findings of this study, the following general recommendations are suggested to enhance the performance in construction industry:

i. Continuous communication and coordination between workers are important

ii. Trainings to improve managerial skills of all workers are required.

iii. The employers should Strengthen Communication Protocols.

iv. Identify and Align Goals with Performance.

iv. The culture of the industry should highly be emphasized.

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16th June, 2025.

Dear Respondents,

QUESTIONAIRE ON AN EXAMINATION OF THE FACTORS AFFECTING POOR PERFORMANCE OF CONSTRUCTION WORKERS IN BUILDING INDUSTRY.

The student of the fore mentioned school and department is currently conducting research on the "An Examination of the Factors Affecting Poor Performance of a Construction Workers in Building Industry." The student is final year students of the above mentioned department.

Please you are required to be objective in answering the questions below in their appropriate places. However, every information given towards the success of this research work will be held in strict confidence and will be used for academic only. Thank you.

_____

BILIAMINU RIDWAN
HIND/23/BLD/FT/0015

QUESTIONNAIRE

INSTRUCTION: Please tick (4) the answer you consider appropriate. The questionnaire w be in two parts. Section A and Section B

Section A: Biodata of The Respondent

1. Sex of respondent: (a) Male (b) Female
2. Age of respondent (a) 15-20 (b) 20-25 (c) 30 and above
3. Religion: (a) Muslim (b) Christian
4. Marital Status: (a) Single (b) Married (c) Others
5. Occupation: (a) Civil servant (b) Trade (c) Student

Section B: Question On Problem Facing Constructions workers

KEY WORD: Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D) and StronglyDisagree (SD).

S/N	QUESTIONS	SA	A	N	D	SD
1.	The environment stimulate the formulation of strategy in your environment?					
2.	How often do you analyze the environment to know the threat, opportunities, strength and weakness faced by your organization?					
3.	Are there other factors around that affect employee productivity in your industry?					
4.	What are the Factors that affect worker's performance in building industry?					
5.	How can the problem facing Worker in building Industry can be curbed?					
6.	What is the impact of Workers performance on building industry?					
7.	How does worker's performance affect Building Industry?					

Section C: Question on Possible solution to the Construction workers poor performance

KEY WORD: Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D) and Strongly Disagree (SD).

S/N	QUESTIONS	SA	A	N	D	SD
1.	The staff payment should be duly pay on time					
2.	Project team leader must be committed to his responsibilities and monitor the project progress closely especially on cost, time and quality					
3.	Employer should manage his financial resources and plan cash flow by utilizing progress payment.					
4.	Employer should give fullcooperation to workers or when their expertise help are needed					
5.	Give prompt feedback/action when matters are raise by one of the project participants					
6.	For sites management and supervision, administrative and technical staff should be assigned as soon as project is awarded to make arrangement to achieve completion within specified time with the required quality and estimated cost					
7.	Employer must be committed to his responsibilities and monitor the project progress closely especially on cost, time and quality					