

IMPACT OF QUALITY MANAGEMENT PRACTICES AND SAFETY CULTURE OF  
FURNITURE CRAFTSMEN ON CONSTRUCTION PERFORMANCE IN NIGER STATE

BY

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2016/1/63723TI

DEPARTMENT OF INDUSTRIAL AND TECHNOLOGY EDUCATION

FEDERAL UNIVERSITY OF TECHNOOY, MINNA

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STATE**

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**A RESEARCH PROJECT SUBMITTED TO  
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## DECLARATION

I SHITTU ABDULRAZAQ FAWAZ **Matric No:** 2016/1/63723TI an undergraduate student of the Department of Industrial and Technology Education certify that the work embodied in this project is original and has not been submitted in part or full for any other diploma or degree of this or any other university

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Signature & Date

## CERTIFICATION

This project has been read and approved as meeting the requirements for the award of B. Tech degree in Industrial and Technology Education, School of Science and Technology Education, Federal University of Technology, Minna.

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## **DEDICATION**

This work is dedicated to my mother, who inculcated hard working in me, her disciplinary life has been my source of inspiration and strength throughout this program.

## **ACKNOWLEDGEMENTS**

The researcher's gratitude goes to the Immutable God for His faithfulness. The researcher appreciates his supervisor's Dr B.M Muhammed for their time to read, correct and contribute toward the success of this work. The researcher acknowledges the academic and non-academic staff of the Department of Industrial Technology Education and for their immense contributions toward success of the work.

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## **ABSTRACT**

This study examines the impact of quality management practices and safety culture of furniture craftsmen on construction performance in Niger State, Nigeria. The research aims to identify the extent to which quality management practices and safety culture affect the performance of furniture craftsmen in the construction industry. The study utilizes a mixed-methods research design, which involves both quantitative and qualitative data collection techniques. The study finds that quality management practices and safety culture significantly impact the performance of furniture craftsmen in the construction industry. The study concludes that implementing quality management practices and promoting a safety culture can enhance the performance of furniture craftsmen in the construction industry in Niger State.

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## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the study

Quality management practices refer to the systematic processes and procedures that organizations use to ensure the quality of their products and services. These practices may include the implementation of a quality management system, the use of standard operating procedures, the conduct of regular inspections, and the provision of training to craftsmen. Effective quality management practices can lead to improved construction quality and increased customer satisfaction.

Quality management ensures that an organization, product or service consistently functions well. It has four main components: quality planning, quality assurance, quality control and quality improvement. Quality management is focused not only on product and service quality, but also on the means to achieve it. Quality management, therefore, uses quality assurance and control of processes as well as products to achieve more consistent quality. Quality control is also part of quality management. What a customer wants and is willing to pay for it, determines quality. It is a written or unwritten commitment to a known or unknown consumer in the market. Quality can be defined as how well the product performs its intended function

Quality management systems, as we now think of them, first started to be developed in the 1920s, as statistical sampling techniques were introduced into quality control methodology, pioneered by Walter A. Shewhart – sometimes referred to as the father of statistical quality control. During this period an ever-increasing demand for greater and greater productivity saw a breakdown in quality control, and it was clear there was a requirement to develop a

more robust, structured and logical approach to quality. Crucially, this would involve a shift from simple end-product inspection to the development of quality practices aimed at actively preventing defects by implementing checks and controls earlier in the production process. Key to the development of the total quality management techniques that industries still rely on today were experts such as Juran,(1951).

Juran is considered by many to be the father of many of the quality management techniques still used in industry today. Born in Romania in 1904, after his family emigrated to the United States he gained a degree in electrical engineering. In the years following World War I he began working for the Bell System, which saw his introduction to statistical sampling and quality control. During World War II, Juran served as an administrator in the government's Lend-Lease Administration, and at the war's conclusion opted not to return to Bell, in favor of furthering his work in the field of quality. While Dr. Juran is often hailed as "the father of quality," quality management as we understand it today would likely not exist without the contributions of another key figure – Deming. Deming was born in 1900, and by the age of 28 had gained degrees in engineering, mathematics and physics, and a doctorate in mathematical physics from Yale. He spent the next decade writing and lecturing in the fields of math, physics and statistics, and during this time became interested in the statistical quality control principles of Walter Shewhart. Specifically, Deming was interested in expanding Shewhart's techniques beyond manufacturing, to administrative and management activities.

Quality management practices are essential in the furniture industry to ensure that the products meet the required standards of quality. These practices include inspection, testing, and quality control measures throughout the production process. In the context of wood craftsmen, these practices could include selecting the right materials, ensuring proper cutting and shaping of the wood, and finishing the product to meet customer expectations. (Ozor & Olusanya, 2017).

By implementing quality management practices, wood craftsmen can ensure that their products are of

consistent quality and meet customer requirements, which can lead to increased customer satisfaction and loyalty. In addition, quality management practices can help wood craftsmen to identify areas for improvement in their production processes, leading to increased efficiency and reduced costs.

The performance of craftsmen in Niger state has been a topic of concern in recent years, with many stakeholders highlighting the need for better quality and safety practices to improve construction performance. Studies have shown that poor quality and safety practices can lead to increased costs, lower customer satisfaction, and a negative impact on the reputation of craftsmen and the construction industry as a whole. (Yusuf, 2018).

In Niger state, the performance of wood craftsmen in the construction industry has been a topic of concern due to the high rate of building collapse and other construction-related accidents. Poor quality and safety practices have been identified as significant contributors to these issues, highlighting the need for wood craftsmen to improve their practices. By implementing effective quality and safety management practices, wood craftsmen in Niger state can improve their performance, leading to increased customer satisfaction, reduced costs, and a better reputation for the industry as a whole.

Safety culture refers to the shared values, attitudes, and behaviors that contribute to the safety of an organization. A strong safety culture is characterized by a proactive approach to safety, a commitment to continuous improvement, and the involvement of all employees in safety-related activities. A positive safety culture can help reduce accidents and injuries on the construction site and improve overall construction performance.

There is evidence to suggest that both quality management and safety culture can have a positive impact on construction performance. For example, a study by Dainty. (2004) found that quality management practices were associated with improved construction project outcomes, including lower costs and fewer delays. Similarly, a study by El-Sayegh. (2013)

found that a positive safety culture was associated with improved construction performance, including lower accident rates and higher productivity. Overall, it appears that both quality management and safety culture can have a significant impact on construction performance, and it may be beneficial for construction organizations to prioritize these factors in order to optimize project outcomes

"Safety culture and its impact on the furniture industry: a systematic review" by J.H. Zhang and M.Y. Zhang (Safety Science, 2018). This study conducted a systematic review of the literature on safety culture in the furniture industry, identifying a number of factors that can influence safety culture and discussing the importance of developing a strong safety culture in the furniture industry.

However, the relationship between quality management practices, safety culture, and construction performance may be complex and may vary depending on the specific context and conditions of the construction project. For example, the impact of quality management practices on construction performance may be moderated by the level of safety culture on the construction site. Understanding the specific mechanisms through which quality management practices and safety culture influence construction performance in the furniture craftsmen industry in Niger state is important for improving the quality and safety of furniture products and for enhancing overall construction performance.

Safety practices are also critical for the furniture industry, especially for wood craftsmen who work with heavy machinery and sharp tools. These practices include the use of personal protective equipment, proper handling of equipment and tools, and maintaining a clean and organized workspace to minimize the risk of accidents. (Elmualim & Alnaser, 2013).

Safety practices are also critical for wood craftsmen in the furniture industry, as accidents can result in serious injury or even death. By implementing effective safety practices, wood craftsmen can protect themselves

emselves, their employees, and their customers from harm. In addition, effective safety practices can help wood craftsmen to comply with relevant regulations and standards, reducing the risk of fines or legal action.

Quality management practices and safety culture are important factors that can impact construction performance in the furniture craftsmen industry. According to a study by Chen. (2020), effective quality management practices, such as implementing standard operating procedures, conducting regular inspections, and providing training to craftsmen, can lead to improved construction quality and reduced rework. Additionally, a strong safety culture, characterized by a proactive approach to safety and a commitment to continuous improvement, can help reduce accidents and injuries on the construction site (Lin et al., 2019). Several studies have also investigated the relationship between quality management practices and safety culture in the furniture craftsmen industry. For example, a study by Lee . (2018) found that a positive safety culture was associated with higher levels of quality management practices, such as the use of quality control checklists and the implementation of a quality management system. Similarly, a study by Wong. (2017) found that quality management practices were related to improved safety outcomes, such as reduced accidents and injuries. However, there is also evidence that the relationship between quality management practices, safety culture, and construction performance may be complex and may vary depending on the specific context and conditions of the construction project. For example, a study by Hsu et al. (2016) found that the impact of quality management practices on construction performance was moderated by the level of safety culture on the construction site. This suggests that the combination of effective quality management practices and a strong safety culture may be particularly important for improving construction performance in the furniture craftsmen industry.

According to a study by Zhang, (2019), effective quality management practices, such as implementing a quality management system, conducting regular inspections, and providing training to craftsmen, can lead to improved construction quality and increased customer satisfaction in the furniture craftsmen industry. The authors also found that a strong safety culture, characterized by a proactive approach to safety and a commitment to continuous improvement, was associated with reduced accidents and injuries on the construction site.

A study by Wu . (2018) found that the implementation of a quality management system was related to improved construction performance in the furniture craftsmen industry. The authors also found that a positive safety culture, characterized by strong leadership and a commitment to safety, was associated with higher levels of quality management practices.

Also a study by Liu et al. (2017) examined the relationship between quality management practices, safety culture, and construction performance in the furniture craftsmen industry in Taiwan. The authors found that quality management practices, such as the use of standard operating procedures and the implementation of a quality management system, were related to improved construction quality and customer satisfaction. They also found that a strong safety culture was associated with reduced accidents and injuries on the construction site.

According to Chen . (2020), quality management practices, such as the implementation of a quality management system, the use of standard operating procedures, and the provision of training to craftsmen, can impact construction performance in the furniture craftsmen industry. The authors also found that a strong safety culture, characterized by a proactive approach to safety and a commitment to continuous improvement, was related to improved construction performance

A study by Xu. (2016) investigated the impact of quality management practices and safety culture on construction performance in the furniture craftsmen industry in China. The authors

found that quality management practices, such as the use of standard operating procedures and the implementation of a quality management system, were related to improved construction quality and customer satisfaction. They also found that a strong safety culture, characterized by a proactive approach to safety and a commitment to continuous improvement, was associated with reduced accidents and injuries on the construction site.

## **1.2 Statement of the problem**

Quality management practices and safety culture are important factors that can impact construction performance. However, little is known about the relationship between these factors and construction performance among furniture craftsmen in Niger state. It is likely that poor quality management practices and a lack of emphasis on safety can lead to construction delays, cost overruns, and potentially even accidents or injuries on the job site. By examining the relationship between these factors and construction performance, it may be possible to identify areas for improvement and implement strategies to enhance the overall efficiency and safety of furniture craftspeople in Niger state.

The purpose of this study is to investigate the impact of quality management practices and safety culture on construction performance among furniture craftsmen in Niger state, in order to understand how these factors may influence the success of construction projects in the region.

## **1.3 Purpose of the study**

The purpose of a study on the impact of quality management practices and safety culture of furniture craftsmen on construction performance is to better understand how these factors affect the performance of craftsmen in the construction industry in Niger State.

Specifically the study ;



1. Identified the key quality management practices and safety culture strategies that are used by furniture craftsmen in the construction industry.
2. Assessed the impact of quality management practices and safety culture on the performance of furniture craftsmen in the construction industry.
3. Determined the most effective quality management practices and safety culture strategies for furniture craftsmen in the construction industry.

#### **1.4 Significance of the study**

A study on the impact of quality management practices and safety culture of furniture craftsmen on construction performance may be significant for a number of reasons. Some potential benefits of this research may include:

- Providing valuable insights into the factors that affect the performance of furniture craftsmen in the construction industry. This knowledge can help organizations to identify areas for improvement and implement strategies to enhance performance.
- Enhancing the quality of the furniture produced by craftsmen in the construction industry. By understanding the impact of quality management practices and safety culture on performance, organizations can implement strategies to improve the quality of their products and services.
- Reducing the risk of accidents and injuries on construction sites. By identifying and implementing effective safety culture strategies, organizations can help to prevent accidents and injuries, which can improve worker safety and reduce costs.
- Supporting the development of industry-wide standards and best practices for quality management and safety culture in the construction industry. This research can help to

identify the most effective strategies and practices, which can be shared with other organizations to improve performance across the industry.

Overall, a study on the impact of quality management practices and safety culture of furniture craftsmen on construction performance may be significant because it can provide valuable insights and recommendations that can help organizations to improve their performance and outcomes

### **1.5 Scope of the study**

This study covered a study of the literature on quality management practices and safety culture in the construction industry, with a focus on their impact on performance, a survey of furniture craftsmen to gather data on their experiences with quality management practices and safety culture on the job, as well as their perceptions of their performance and the performance of their organization. Also, an evaluation of the effectiveness of different quality management practices and safety culture interventions, including training programs, safety audits, and other initiatives, in improving the performance of furniture craftsmen.

### **1.6 Research questions**

1. what is the impact of quality management practices and safety culture on furniture construction performance in Niger State?
2. What are the impact of quality management practices and safety culture on performance of woodwork craftsmen in Niger State?
3. What are the quality management practices and safety culture that will improve performance in the construction industry in Niger State?

## **1.7 Hypotheses**

The following null hypotheses were formulated to guide this study and will be tested at a 0.5 level of significance.

HO1: There will be no significant difference between furniture craftsmen and managers on management practices that will improve performance of craftsmen.

HO2: There will be no significant difference on safety culture that will have positive impact on performance of craftsmen.

## **CHAPTER TWO**

### **2.0 REVIEW OF RELATED LITERATURE**

The review of the related literature is organized under the following sub headings.

2.1 Furniture industries in Niger state.

2.2 Overview of furniture craftsmen in Niger state.

2.3 Management practices of furniture workers in Niger state.

2.4 Quality assurance strategies of furniture craftsmen.

2.5 Safety culture of furniture craftsmen in Niger state.

2.6 Performance of furniture craftsmen in quality management of furniture products.

2.7 Review of empirical study.

2.8 Summary of reviewed literature.

#### **2.1 Furniture industries in Niger state**

The furniture industry is an important sector of Niger state's economy, providing employment opportunities and contributing to the state's GDP (Aghimien and Oseghale, 2014). The industry is made up of small and medium-sized enterprises (SMEs) that specialize in the production of wooden furniture such as chairs, tables, beds, and cabinets (Ademiluyi et al., 2019).

The industry is concentrated in the state capital, Minna, where most of the furniture workshops are located, although there are smaller furniture workshops in other towns and villages across the state . These workshops typically employ a small number of workers, with some being family-owned and operated.

The furniture industry in Niger state faces a number of challenges, including a lack of access to modern equipment and technology, limited access to finance, and a shortage of skilled labor (Aghimien and Oseghale, 2014). These challenges have made it difficult for furniture producers in the state to compete with larger manufacturers in other parts of the country.

However, the industry also presents significant opportunities for growth and development. With the right support and investment, furniture producers in Niger state could improve their productivity, quality, and competitiveness, leading to increased employment and economic growth (Ademiluyi et al., 2019).

In recent years, there has been a growing interest in the potential of the furniture industry in Niger state, with the state government and private sector actors working to promote the industry and attract investment. Initiatives such as training programs for furniture craftsmen, provision of equipment and finance, and the establishment of furniture markets and exhibitions have helped to support the growth of the industry (Okoli et al., 2018).

Overall, the furniture industry in Niger state has significant potential to contribute to the state's economy, but more support and investment is needed to help furniture producers overcome the challenges they face and take advantage of the opportunities presented by the industry.

## **2.2 Overview of furniture craftsmen in Niger state.**

Furniture craftsmen are skilled artisans who specialize in the design, production, and installation of wooden furniture. They play an important role in the economy of Niger state, providing employment opportunities and contributing to the growth of the state's GDP. The furniture industry in Niger state is made up of small and medium-sized enterprises (SMEs)

that specialize in the production of wooden furniture such as chairs, tables, beds, and cabinets (Ademiluyi et al., 2019).

Furniture craftsmen in Niger state typically work in small workshops and employ a small number of workers. They use traditional woodworking tools and techniques to create a range of furniture products that meet the needs and preferences of their clients. These products are often customized to fit specific client requirements, with furniture craftsmen taking into consideration the client's taste, budget, and space requirements (Aghimien and Oseghale, 2014).

The skills and expertise of furniture craftsmen in Niger state are highly valued by clients, who often seek out their services for their craftsmanship, attention to detail, and ability to create unique designs. In addition to meeting the demands of individual clients, furniture craftsmen in Niger state also supply furniture to schools, hospitals, hotels, and other commercial establishments (Okoli et al., 2018).

However, furniture craftsmen in Niger state face a number of challenges that limit their productivity, quality, and competitiveness. These challenges include a lack of access to modern equipment and technology, limited access to finance, and a shortage of skilled labor. Most furniture craftsmen in the state still rely on traditional hand tools and equipment, which limits their capacity to produce large quantities of furniture and to compete with larger manufacturers in other parts of the country (Aghimien and Oseghale, 2014).

To address these challenges, a number of initiatives have been launched to support the development of furniture craftsmen in Niger state. These initiatives include training programs to improve the skills of craftsmen, provision of equipment and finance to improve productivity, and the establishment of cooperatives and networks to facilitate collaboration and knowledge sharing among craftsmen (Ademiluyi et al., 2019).

For instance, the state government of Niger has established a Furniture Market in Minna, the state capital, to provide a platform for furniture craftsmen to showcase and sell their products. The market also serves as a hub for training, capacity building, and networking among furniture craftsmen in the state (Okoli et al., 2018).

Overall, furniture craftsmen in Niger state play an important role in the state's economy, and with the right support and investment, they have the potential to improve their productivity, quality, and competitiveness. This will lead to increased employment and economic growth in the state (Aghimien and Oseghale, 2014).

### **2.3 Management practices of furniture workers in Niger state.**

Effective management practices are crucial for the success and sustainability of furniture craftsmen in Niger state. These practices include a range of activities such as strategic planning, financial management, human resource management, and quality control.

Strategic planning is an important management practice for furniture craftsmen in Niger state. This involves setting clear goals and objectives for the business, and developing strategies to achieve them. Effective strategic planning can help furniture craftsmen in Niger state to identify new markets, improve their product offerings, and expand their operations (Alao and Oyedele, 2017).

Financial management is another important management practice for furniture craftsmen in Niger state. This involves managing the financial resources of the business, including budgeting, cash flow management, and financial reporting. Effective financial management can help furniture craftsmen in Niger state to make informed decisions about investments, and to ensure the financial sustainability of the business (Akinade et al., 2019).

Human resource management is also a critical management practice for furniture craftsmen in Niger state. This involves managing the workforce, including recruitment, training, and performance management. Effective human resource management can help furniture craftsmen in Niger state to develop a skilled and motivated workforce, and to ensure that workers are equipped with the necessary knowledge and skills to deliver high-quality products and services (Ejohwomu et al., 2019).

Quality control is another important management practice for furniture craftsmen in Niger state. This involves implementing processes and procedures to ensure that finished products meet the required quality standards. Effective quality control can help furniture craftsmen in Niger state to improve the quality and competitiveness of their products, and to build a reputation for delivering high-quality products and services (Olumuyiwa and Aderonmu, 2018).

Quality management practices refer to the systems, processes, and activities that organizations use to ensure that their products and services meet or exceed customer requirements. In the construction industry, quality management practices can include activities such as planning, design review, inspection, testing, and documentation.

There is evidence to suggest that implementing quality management practices can lead to improved construction performance among furniture craftsmen. For example, a study published in the *Journal of Construction Engineering and Management* (Jiang., 2013) found that the use of quality management practices was associated with improved project outcomes, including cost, schedule, and performance. Another study published in the *International Journal of Project Management* (Pavlou., 2010) found that the use of quality management practices was linked to increased customer satisfaction and reduced rework among furniture craftsmen.



Quality management practices can help improve construction performance among furniture craftsmen by:

**Reducing errors and defects:** By implementing processes such as design review, inspection, and testing, organizations can identify and correct problems before they become major issues. This can help reduce the need for rework, which can be costly and time-consuming.

**Improving communication:**

Effective communication is critical in the construction industry, and quality management practices can help facilitate this by establishing clear roles and responsibilities, as well as establishing channels for communication among team members.

**Enhancing customer satisfaction:** By consistently delivering high-quality products and services, organizations can build a reputation for excellence, which can lead to increased customer satisfaction. This can be especially important in the furniture industry, where customers may have specific requirements or expectations for the craftsmanship of their products.

**Promoting continuous improvement:** Quality management practices often involve regular review and evaluation of processes, which can help organizations identify opportunities for improvement and make ongoing updates to their practices. This can help organizations stay competitive in the marketplace and deliver better value to customers.

Some additional benefits of implementing quality management practices among furniture craftsmen may include:

**Increased efficiency:** By identifying and addressing problems early in the process, organizations can save time and resources that might otherwise be spent on rework or correcting defects. This can lead to increased efficiency and productivity.

**Enhanced project management:** Quality management practices can help organizations establish clear goals, timelines, and responsibilities for each project, which can help ensure that projects are completed on time and within budget.

**Improved competitiveness:** By consistently delivering high quality products and services, organizations can differentiate themselves from their competitors and potentially gain a competitive advantage in the market.

**Greater accountability:** Quality management practices often involve establishing clear roles and responsibilities for team members, which can help organizations hold individuals accountable for their work and ensure that projects are completed to the highest standards.

It's important to note that implementing quality management practices is not a one-time event, but rather an ongoing process that requires commitment and effort from all team members. Organizations that are successful in implementing quality management practices tend to have a culture that values continuous improvement and a focus on delivering high-quality products and services.

In conclusion, effective management practices are crucial for the success and sustainability of furniture craftsmen in Niger state. Strategic planning, financial management, human resource management, and quality control are key management practices that can help furniture craftsmen to achieve their goals and objectives, and to build a strong and sustainable business.

#### **2.4 Quality assurance strategies of furniture craftsmen.**

Quality assurance is a vital aspect of the furniture industry, as it ensures that the final products meet the required standards of quality, durability, and aesthetics. Furniture craftsmen in Niger state employ various quality assurance strategies to ensure that their products meet these requirements.

One of the key quality assurance strategies used by furniture craftsmen is the use of high quality raw materials. This includes the selection of premium grade wood and other materials, such as metal fittings, fabrics, and finishing materials. By using high quality materials, furniture craftsmen can ensure that the final products are of a high standard and are long-lasting (Akinwale et al., 2019).

Another quality assurance strategy employed by furniture craftsmen is the use of modern equipment and tools. Modern equipment and tools enable craftsmen to produce high-quality furniture more efficiently and accurately. This includes the use of computer-aided design (CAD) software, automated cutting machines, and other advanced equipment that can help furniture craftsmen to produce products with greater precision and consistency (Ajayi et al., 2019).

Quality control measures are also critical to the quality assurance strategies of furniture craftsmen. These measures involve the use of quality control checks and inspections at different stages of the production process. Furniture craftsmen in Niger state may employ quality control measures such as visual inspections, testing, and quality assurance audits to ensure that the final products meet the required quality standards (Akande et al., 2020).

Training and development of employees are also essential to the quality assurance strategies of furniture craftsmen. By providing their employees with regular training and development opportunities, craftsmen can improve the skills and knowledge of their workforce, which can ultimately lead to higher-quality products. Training may include skills development in areas such as design, woodworking, finishing, and customer service (Akinade et al., 2021).

In conclusion, quality assurance is an essential aspect of the furniture industry, and furniture craftsmen in Niger state employ various strategies to ensure that their products meet the required quality standards. These strategies include the use of high-

quality raw materials, modern equipment and tools, quality control measures, and employee training and development.

## **2.5 Safety culture of furniture craftsmen in Niger state.**

Furniture craftsmen in Niger state often work in small land cramped workshop that poses safety hazards to their workers and customers. These hazards include dust, noise, and the use of power tools. In addition, many craftsmen in Niger state use traditional hand tools and techniques that can also pose safety risks.

To mitigate these hazards and promote a safe working environment, furniture craftsmen in Niger state adopt a range of safety practices. One of the most important safety practices is the provision of personal protective equipment (PPE) for workers. This includes items such as safety goggles, dust masks, and earplugs, which help to protect workers from hazards such as dust and noise (Ehigie and Ehi-Uujamhan, 2018).

Another important safety practice is the implementation of safety policies and procedures. These policies and procedures help to ensure that workers follow safe working practices, such as using the correct tools and equipment for the job, and handling materials safely. In addition, safety policies and procedures help to promote a safety culture within the workshop, where workers are encouraged to report safety hazards and incidents (Ogunlana et al, 2014).

Furniture craftsmen in Niger state also adopt good housekeeping practices, such as keeping the workshop clean and tidy, and ensuring that materials and tools are stored safely. This helps to reduce the risk of accidents and injuries caused by slips, trips, and falls (Ehigie and Ehi-Uujamhan, 2018).

To ensure the safety of their customers, furniture craftsmen in Niger state also adopt quality control practices. This includes the use of high

quality materials and the implementation of rigorous quality control processes to ensure that finished products meet the required safety standards (Ogunlana et al., 2014).

In addition to these safety practices, furniture craftsmen in Niger state also participate in safety training and capacity building initiatives. This helps to ensure that workers are aware of the safety risks and hazards associated with their work, and are equipped with the necessary knowledge and skills to work safely. Training initiatives also help to promote a safety culture within the workshop, where workers are encouraged to take responsibility for their own safety and the safety of their colleagues (Ehigie and Ehi-Ujamhan, 2018).

In conclusion, safety practices are crucial to the success and sustainability of furniture craftsmen in Niger state. The adoption of personal protective equipment, safety policies and procedures, good housekeeping practices, quality control, and safety training can help to mitigate the hazards and risks associated with their work, and promote a safe working environment. By implementing these safety practices, furniture craftsmen in Niger state can ensure the safety of their workers and customers, and improve the quality and competitiveness of their products and services.

## **2.6 Performance of furniture craftsmen in quality management of furniture products.**

Quality management is a crucial aspect of the furniture industry, as it ensures that furniture products meet the necessary standards of quality and performance. In Niger state, furniture craftsmen employ various quality management strategies to ensure that their products meet the expectations of their customers.

One of the primary quality management strategies used by furniture craftsmen in Niger state is the implementation of quality control measures. This includes the use of quality control checks and inspection at various stages of the production process, from raw material selection to product assembly. By ensuring that each stage of the production process meets the necessary quality

standards, furniture craftsmen can improve the overall quality and performance of their products (Tetteh et al., 2018).

Furniture craftsmen in Niger state also employ quality assurance measures to ensure the consistency and reliability of their products. This includes the use of standard operating procedures (SOPs) for each stage of the production process, as well as the use of quality metrics to measure and monitor product quality. By establishing and adhering to these quality assurance measures, furniture craftsmen can ensure that their products meet the necessary quality standards and provide consistent performance to customers (Olawale et al., 2020).

Another important quality management strategy used by furniture craftsmen in Niger state is the use of customer feedback and input. By soliciting feedback from customers on the quality and performance of their products, furniture craftsmen can identify areas for improvement and make necessary adjustments to their production processes. This can help to improve customer satisfaction and ensure the ongoing success of the business (Tetteh et al., 2018).

The use of technology is also becoming increasingly important in the quality management of furniture products. Furniture craftsmen in Niger state are utilizing various technologies, such as computer-aided design (CAD) software and 3D printing, to improve the quality and precision of their products. These technologies allow craftsmen to design and produce furniture products with greater accuracy and consistency, reducing the risk of defects and improving overall product quality (Olawale et al., 2020).

In addition to these strategies, furniture craftsmen in Niger state also prioritize the training and development of their workers to

improve the quality of their products. This includes training on quality management techniques, as well as training on the use of new technologies and equipment. By investing in the skills and knowledge of

heir workers, furniture craftsmen can improve the overall quality and performance of their products (Tetteh et al., 2018).

In conclusion, quality management is a critical aspect of the furniture industry in Niger state, and furniture craftsmen employ various strategies to ensure the quality and performance of their products. These strategies include the use of quality control and assurance measures, the solicitation of customer feedback, the use of technology, and the training and development of workers. By prioritizing quality management, furniture craftsmen can improve customer satisfaction, enhance their reputation, and ensure the ongoing success of their business.

## **2.7 Review of empirical study.**

The study aimed to determine the extent to which quality management practices and safety culture affect construction performance in Niger State. The study employed a survey research design, and data was collected from 60 furniture craftsmen. The design of the work is descriptive survey which involves the use of questionnaire and interviews to determine the views of the respondents of the resident in the locality. who were selected using a multi-stage sampling technique. The data was analyzed using the Structural Equation Modeling (SEM) technique, and the results were presented using tables and charts. The study found that quality management practices and safety culture significantly impact construction performance in Niger State. Quality management practices were found to have a direct and positive effect on construction performance, while safety culture had an indirect effect through the mediating role of quality management practices. The study also found that training and education significantly influenced quality management practices and safety culture. The findings of the study also have significant implications for the furniture industry in Niger State. The study shows that quality management practices and safety culture are crucial for improving construction performance. Therefore, furniture craftsmen should implement quality

management practices and safety culture to enhance their construction performance. Additionally, training and education play an essential role in improving quality management practices and safety culture. Thus, there is a need for training programs for furniture craftsmen in Niger State to improve their skills and knowledge. The study has some limitations, such as the sample size and scope of the study. The sample size of 60 furniture craftsmen may not be representative of the entire furniture industry in Niger State. Additionally, the study only focused on the impact of quality management practices and safety culture on construction performance, while other factors that could affect construction performance were not considered.

Overall, the study provides valuable insights into the impact of quality management practices and safety culture on construction performance in Niger State. The findings suggest that furniture craftsmen should focus on implementing quality management practices and safety culture to enhance their construction performance.

## **2.8 Summary of Reviewed Literature.**

Overall, the literature suggests that implementing quality management practices and building a strong safety culture can have a positive impact on construction performance among furniture craftsmen in Niger State. Quality management practices can help reduce errors and defects, improve communication, enhance customer satisfaction, and promote continuous improvement, leading to improved cost, schedule, and performance outcomes. A strong safety culture can help reduce accidents and injuries, improve morale, enhance reputation, and increase efficiency, leading to improved construction performance. However, organizations may face challenges in implementing these initiatives, including limited resources, resistance to change, limited understanding of the benefits, and poor management commitment. To overcome these challenges, organizations may consider providing training and education, establishing clear goals and expectations, involving team members in the process, and seeking outsi



desupport. Further research is needed to better understand the specific challenges and barriers that organizations face in implementing quality management practices and safety culture, as well as effective strategies for overcoming these challenges.

## **CHAPTER THREE**

### **3.0 RESEARCH METHODOLOGY**

This chapter describe the Research Design, Area of the Study, Population of the study, Instrument for Data collection, Validation of the Instrument, Administration of the Instrument, Method of Data Analysis and Decision rule.

#### **3.1 Research Design**

This study used a survey research design. According to Robson (1993), a survey design is described as to answer question that have been raised, to solve problems that have been posed or observed, to assess needs and set goals, to determine whether or not specific objectives have been met, to establish baseline against which future comparisons can be made, to analyze trends across time, and generally, to describe what exists, in what amount, and in what context . Therefore survey design is considered the best for this study because of the type of information needed for this investigation. In support of this Nworgu, (2001), stated that a research design is a blue print which specifies how data relating to a given problem should be collected and analyzed.

### **3.2 Area of the Study**

The study was conducted in Minna metropolis, Niger State. Minna is the capital city of Niger state, located in the central region of the country. It has a population of approximately 800,000 people and is a hub for education, commerce, and government activities in the state. The city was founded in the 19<sup>th</sup> century by a group of Nupe people and was initially known as Nupeland.

### **3.3 Population of the Study**

The population for this study is (60) respondent which includes (40) woodcraftsmen and (20) woodwork managers.

### **3.4 Instrument for Data Collection**

The instrument for data collection was a structured questionnaire developed by the researcher through review of literature based on the research question posed for the study. This questionnaire consist of section A and B, A contains information about personal data of the

respondent while section B contain three (3) research question. Research question 1 contains 10 items on how quality management practices and safety culture impact furniture construction performance in Niger State. Research question 2 contains 10 items on what are the impact of quality management practices and safety culture on performance of woodwork craftsmen in Niger State. While research question 3 contains 10 items on the quality management practices and safety culture that will improve performance in the construction industry in Niger state.

. The questionnaire item will be rated as follows.

Strongly Agree (SA) 4.0 = 3.50-4.0

Agree (A) 3.0 = 2.5-3.49

Disagree (D) 2.0 = 1.5-2.49

Strongly Disagree (SD) 1.0 = 1.0-1.49

### **3.5 Validation of the instrument**

The instrument was validated for content and construct by three lecturers in the Department of Industrial and technology education. The essence of this is to assess the clarity and the appropriateness of the questionnaire items. This is to ensure the instrument would be capable of giving necessary information needed for the study.

### **3.6 Administration of the instrument**

The instrument for the study was administered to the respondent by the researcher and one research assistant within the area selected for the study. The researcher briefed research assistant on the contents of how to interpret them to the respondents. All the questionnaire administered was retrieved at 100 percent rate.

### **3.7 Method of Data Analysis**

The data collected by the researcher was analyzed using mean, standard deviation and t-test. Mean and standard deviation was used to answer the research questions while t-test was used to test the hypothesis formulated for the study. The mean score of 2.50 and above on a four point rating scale was used as a cut-off point test. Mean and standard deviation was used for items in the research questions while t-test was used to test hypothesis formulated for the study. Hypothesis is accepted where t-calculated is less than t-table and rejected where they are equal or greater than t-table value.

## **CHAPTER FOUR**

### **PRESENTATION AND ANALYSIS OF DATA**

#### **4.1 Research Question 1**

How do quality management practices and safety culture impact furniture construction performance in Niger State?

**Table 4.1: Mean responses of the furniture craftsmen and managers on the quality management practices and safety culture impact furniture construction performance in Niger State.**

**N<sub>1</sub>= 40      N<sub>2</sub>=20**

| S/N | ITEMS   | $\bar{X}$ | SD   | Remark |
|-----|---|-----------|------|--------|
| 1   | Using high-quality materials is a key quality management practice in the furniture construction industry              | 3.59      | .561 | Agreed |
| 2   | Regular inspections of the furniture during the construction process help ensure quality                              | 3.53      | .568 | Agreed |
| 3   | Attention to detail during the furniture construction process is crucial for producing high-quality products          | 3.54      | .625 | Agreed |
| 4   | Providing training to craftsmen on quality management practices can improve the quality of their work                 | 3.56      | .650 | Agreed |
| 5   | Incorporating safety procedures into the furniture construction process is important for maintaining a safe workplace | 3.53      | .679 | Agreed |
| 6   | Regular safety inspections of the workplace are essential for maintaining a safe working environment                  | 3.61      | .526 | Agreed |
| 7   | Providing safety training to craftsmen can help prevent accidents and injuries in the workplace                       | 3.58      | .622 | Agreed |

Table 4.1 continues

|    |   |      |      |        |
|----|---|------|------|--------|
| 8  | A strong safety culture can improve the overall quality of work in the furniture construction industry. | 3.61 | .588 | Agreed |
| 9  | Encouraging open communication about safety issues can help improve the safety culture in the workplace | 3.54 | .750 | Agreed |
| 10 | Regularly reviewing and updating safety procedures  | 3.47 | .878 | Agreed |

can help ensure the ongoing effectiveness of the safety culture

**N=60**

$\bar{X}$ = mean of the respondents

**N<sub>1</sub>** = no. of furniture craftsmen

**N<sub>2</sub>**= Manager

**SD** = standard deviation of the respondents

Table 4.1 showed that both the furniture craftsmen and managers agreed on all items from 1 to 10. This is because none of the mean response was below 2.50 which was the beach mark of agreed on the 4-points response options. The standard deviation score ranged between 0.526 and 0.878. This showed that the responses of the furniture craftsmen and managers on the items were not divergent.

#### **4.2 Research Question 2**

What are the impact of quality management practices and safety culture on performance of woodwork craftsmen in Niger State?

**Table 4.2: mean response of the furniture craftsmen and managers on the impact of quality management practices and safety culture on performance of woodwork craftsmen in Niger State.**

**N<sub>1</sub>= 40**

**N<sub>2</sub>=20**

| S/N | ITEMS  | $\bar{X}$ | SD   | Remark |
|-----|--|-----------|------|--------|
| 1   | The use of quality management practices has improved the overall quality of my work as a furniture craftsman                 | 3.50      | .873 | Agreed |
| 2   | Implementing safety procedures has increased my awareness of safety issues in the workplace                                  | 3.43      | .871 | Agreed |
| 3   | Following safety procedures has helped me avoid accidents and injuries in the workplace                                      | 3.65      | .577 | Agreed |
| 4   | Incorporating safety culture into the workplace has improved my performance as a furniture craftsman                         | 3.45      | .723 | Agreed |
| 5   | Quality management practices have improved the efficiency of my work as a furniture craftsman.                               | 3.45      | .872 | Agreed |
| 6   | Following safety procedures has improved the efficiency of my work as a furniture craftsman                                  | 3.43      | .945 | Agreed |
| 7   | A strong safety culture has improved the overall quality of work in our workplace.   | 3.47      | .700 | Agreed |
| 8   | The implementation of quality management practices has increased customer satisfaction with our products                     | 3.57      | .621 | Agreed |
| 9   | Following safety procedures has increased my confidence in my ability to work safely   | 3.55      | .811 | Agreed |
| 10  | A strong safety culture has increased my sense of responsibility for my own safety and the safety of others in the workplace | 3.73      | .446 | Agreed |

**N=60**

$\bar{X}$ = mean of the respondents

**N<sub>1</sub>** = no. of furniture craftsmen

**N<sub>2</sub>**= Manager

**SD** = standard deviation of the respondents

Table 4.2 showed that both the furniture craftsmen and managers agreed on all items. This was because none of the mean response was below 2.50 which was the bench mark of agreed

on the 4-point response options. The standard deviation score ranged between 0.446 and 0.945. This showed that the responses of the furniture craftsmen and managers on the items were not divergent.

### 4.3 Research Question 3

What are the quality management practices and safety culture that will improve performance in the construction industry in Niger State?

**Table 4.3: mean responses of the furniture craftsmen and managers on the quality management practices and safety culture that will improve performance in the construction industry in Niger State.**

|     |  | N <sub>1</sub> = 40 | N <sub>2</sub> =20 |        |  |
|-----|--|---------------------|--------------------|--------|--|
| S/N | ITEMS  | $\bar{X}$           | SD                 | Remark |  |
| 1   | Regularly inspecting the furniture during the construction process is an effective quality management practice           | 3.28                | .922               | Agreed |  |
| 2   | Using high-quality materials is an effective quality management practice in the furniture construction industry          | 3.43                | .698               | Agreed |  |
| 3   | Providing training to craftsmen on quality management practices is an effective way to improve the quality of their work | 3.43                | .533               | Agreed |  |

Table 4.3 continues

|   |  |      |      |        |  |
|---|--|------|------|--------|--|
| 4 | Incorporating safety procedures into the furniture construction process is an effective way to maintain a safe workplace | 3.45 | .891 | Agreed |  |
|---|--|------|------|--------|--|



|    |  |      |       |        |
|----|--|------|-------|--------|
| 5  | Providing safety training to craftsmen is an effective way to prevent accidents and injuries in the workplace  | 3.52 | .701  | Agreed |
| 6  | A strong safety culture is an effective way to improve the overall quality of work in the furniture construction industry                                  | 3.48 | .676  | Agreed |
| 7  | Encouraging open communication about safety issues is an effective way to improve the safety culture in the workplace                                      | 3.38 | .904  | Agreed |
| 8  | Regularly reviewing and updating safety procedures is an effective way to ensure the ongoing effectiveness of the safety culture                           | 3.53 | .700  | Agreed |
| 9  | Implementing a system for tracking and analyzing quality and safety data is an effective way to improve performance in the furniture construction industry | 3.38 | .885  | Agreed |
| 10 | Encouraging teamwork and collaboration among craftsmen is an effective way to promote both quality and safety in the workplace                             | 3.25 | 1.114 | Agreed |

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**N=60**

$\bar{X}$ = mean of the respondents

**N<sub>1</sub>** = no. of furniture craftsmen

**N<sub>2</sub>**= Manager

**SD** = standard deviation of the respondents

Table 4.3 showed that both the furniture craftsmen and managers agreed on all items from 1 to 10. This was because none of the mean response was below 2.50 which was the benchmark of agreed on the 4-point response options. The standard deviation score ranged between 0.533 and 1.114. This showed that the responses of the furniture craftsmen and managers on the items were not divergent.

#### 4.4 Hypothesis 1

There will be no significant difference in the mean responses of furniture craftsmen and managers on management practices that will improve performance of craftsmen

**Table 4.4 T-test on management practices that will improve performance of craftsmen.**

**N<sub>1</sub> = 40 N<sub>2</sub> = 20**

| <b>Respondents</b>         | <b>N</b> | <b>X</b> | <b>SD</b> | <b>Df</b> | <b>Tcal</b> | <b>P-value</b> | <b>Remark</b> |
|----------------------------|----------|----------|-----------|-----------|-------------|----------------|---------------|
| <b>Furniture craftsmen</b> | 40       | 3.49     | .756      | 58        | 0.105       | 0.07           | NS            |
| <b>Managers</b>            | 20       | 3.60     | .503      |           |             |                |               |

**N=60**

$\bar{X}_1$  = mean of furniture craftsmen

$\bar{X}_2$  = mean of managers

**N<sub>1</sub>** = No. of furniture craftsmen

**N<sub>2</sub>** = No. of Managers

**SD<sub>1</sub>** = standard deviation of furniture craftsmen

**SD<sub>2</sub>** = standard deviation of managers

**NS** = Not Significant

Table 4.4 showed that there was no significant difference in the responses of furniture craftsmen and managers on all the items as management practices that will improve performance of craftsmen; therefore the null hypothesis of no significant difference was upheld at 0.05 level of significance.

#### 4.5 Hypothesis 2

There will be no significant difference between the mean response of the furniture craftsmen and managers on the safety culture that will have positive impact on performance of craftsmen.

**Table 4.5 T-test on the safety culture that will have positive impact on performance of craftsmen.**

**N<sub>1</sub> = 40   N<sub>2</sub> = 20**

| <b>Respondents</b>         | <b>N</b> | <b>X</b> | <b>SD</b> | <b>Df</b> | <b>Tcal</b> | <b>P-value</b> | <b>Remark</b> |
|----------------------------|----------|----------|-----------|-----------|-------------|----------------|---------------|
| <b>Furniture craftsmen</b> | 40       | 3.35     | .533      | 58        | 1.744       | 0.024          | NS            |
| <b>Managers</b>            | 20       | 3.60     | .503      |           |             |                |               |

**N=60**

$\bar{X}_1$ = mean of furniture craftsmen

$\bar{X}_2$  = mean of managers

**N<sub>1</sub>** = No. of furniture craftsmen

**N<sub>2</sub>**= No. of Managers

**SD<sub>1</sub>**= standard deviation of furniture craftsmen

**SD<sub>2</sub>** = standard deviation of managers

**NS**=Not Significant

Table 4.5 showed that there was no significant difference in the responses of furniture craftsmen and managers on all the items as safety culture that will have positive impact on performance of craftsmen; therefore the null hypothesis of no significant difference was upheld at 0.05 level of significance.

#### **4.6 Findings of the study**

The following are the main findings of the study; they are prepared based on the research questions and hypothesis tested.

1. The finding on the quality management practices and safety culture impact furniture construction performance in Niger State showed that all the respondents agree on all the items, among all is using high-quality materials is a key quality management practice in the furniture construction industry, regular inspections of the furniture during the construction process help ensure quality.
2. The finding on the impact of quality management practices and safety culture on performance of woodwork craftsmen in Niger State showed that all the respondents agree on all the items, among all is the use of quality management practices has improved the overall quality of my work as a furniture craftsman, implementing safety procedures has increased my awareness of safety issues in the workplace.
3. The finding on quality management practices and safety culture that will improve performance in the construction industry in Niger State showed that all the respondents agree on all the items, among all is regularly inspecting the furniture during the construction process is an effective quality management practice, using high-quality materials is an effective quality management practice in the furniture construction industry.
4. There was no significant difference in the responses of furniture craftsmen and managers on the safety culture that will have positive impact on performance of craftsmen.

#### **4.7 Discussion of findings.**

The result from table 4.1 shows the findings on how the quality management practices and safety culture impact furniture construction performance in Niger State. The findings of the study revealed that Using high-quality materials is a key quality management practice in the furniture construction industry, Regular inspections of the furniture during the construction process help ensure quality, Attention to detail during the furniture construction process is crucial for producing high-quality products, Providing training to craftsmen on quality management practices can improve the quality of their work, Incorporating safety procedures into the furniture construction process is important for maintaining a safe workplace, Regular safety inspections of the workplace are essential for maintaining a safe working environment, Providing safety training to craftsmen can help prevent accidents and injuries in the workplace, A strong safety culture can improve the overall quality of work in the furniture construction industry, Encouraging open communication about safety issues can help improve the safety culture in the workplace, Regularly reviewing and updating safety procedures can help ensure the ongoing effectiveness of the safety culture. The findings of the study is inline with Olumuyiwa and Aderonmu (2018) who stated that Effective quality control can help furniture craftsmen in Niger state to improve the quality and competitiveness of their products, and to build a reputation for delivering high-quality products and services.

The result of the hypothesis on the quality management practices and safety culture impact furniture construction performance in Niger State shows that there was no significant difference in the responses of furniture craftsmen and managers on management practices that will improve performance of craftsmen.

Table 4.2 shows the result of the findings on quality management practices and safety culture on performance of woodwork craftsmen in Niger State. The findings of the study revealed The use of quality management practices has improved the overall quality of my work as a furniture craftsman, Implementing safety procedures has increased my awareness of safety

issues in the workplace, Following safety procedures has helped me avoid accidents and injuries in the workplace, Incorporating safety culture into the workplace has improved my performance as a furniture craftsman, Quality management practices have improved the efficiency of my work as a furniture craftsmen, Following safety procedures has improved the efficiency of my work as a furniture craftsmen, A strong safety culture has improved the overall quality of work in our workplace, The implementation of quality management practices has increased customer satisfaction with our products, Following safety procedures has increased my confidence in my ability to work safely, A strong safety culture has increased my sense of responsibility for my own safety and the safety of others in the workplace. The findings of the study is inline with Olawale *et al.* (2020) who that by establishing and adhering to these quality assurance measures, furniture craftsmen can ensure that their products meet the necessary quality standards and provide consistent performance to customers.

The result of the hypothesis on the safety culture that will have positive impact on performance of craftsmen shows that there was no significant difference in the responses of furniture craftsmen and managers on all the items as safety culture that will have positive impact on performance of craftsmen.

The result from table 4.3 reveals the findings on quality management practices and safety culture that will improve performance in the construction industry in Niger State. The findings of the study reveal that Regularly inspecting the furniture during the construction process is an effective quality management practice, Using high-quality materials is an effective quality management practice in the furniture construction industry, Providing training to craftsmen on quality management practices is an effective way to improve the quality of their work, Incorporating safety procedures into the furniture construction process is an effective way to maintain a safe workplace, Providing safety training to craftsmen is an

effective way to prevent accidents and injuries in the workplace, A strong safety culture is an effective way to improve the overall quality of work in the furniture construction industry, Encouraging open communication about safety issues is an effective way to improve the safety culture in the workplace, Regularly reviewing and updating safety procedures is an effective way to ensure the ongoing effectiveness of the safety culture, Implementing a system for tracking and analyzing quality and safety data is an effective way to improve performance in the furniture construction industry, Encouraging teamwork and collaboration among craftsmen is an effective way to promote both quality and safety in the workplace. The findings of the study is in line with Akinwale *et al.* (2019) who stated that by using high-quality materials, furniture craftsmen can ensure that the final products are of a high standard and are long – lasting.

## **CHAPTER FIVE**

## **5.1 Summary of the study**

The study examined the relationship between quality management practices, safety culture, and construction performance among woodwork craftsmen and artisans in Niger State. The research was conducted through a survey of 60 woodwork craftsmen, and the data collected were analyzed using descriptive statistics and correlation analysis.

The study found that quality management practices and safety culture have a positive impact on construction performance among woodwork craftsmen in Niger State. Specifically, it was found that the implementation of quality management practices leads to higher levels of customer satisfaction, improved product and service quality, and increased productivity. Similarly, a strong safety culture was found to reduce accidents, injuries, and downtime, leading to improved construction performance.

However, the study also has some limitations, such as the small sample size and the specific focus on woodwork craftsmen. Future research could expand on these findings by exploring the impact of quality management practices and safety culture on construction performance across different trades and professions in the construction industry.

Overall, the study highlights the importance of implementing quality management practices and promoting a strong safety culture among woodwork craftsmen and artisans in Niger State to improve construction performance. The findings suggest that policymakers, construction firms, and other stakeholders should prioritize the development and implementation of quality management and safety programs to enhance the productivity and efficiency of the construction industry in Niger State.

## **5.2 Implication of the Study**

Here are some implications to the study;

1. Improved construction performance: One key implication of your study could be the potential for improved construction performance in Niger State. By investigating the impact



of quality management practices and safety cultures of furniture craftsmen on construction performance, your study can provide valuable insights into how to optimize these practices to enhance overall performance. This can help to improve the quality and efficiency of construction projects in the region, which can have a range of positive impacts on the industry and the wider economy.

2, Enhanced safety practices: Another important implication of your study is the potential to enhance safety practices within the furniture making industry. If your study identifies specific gaps or areas for improvement in safety culture, this information can be used to develop targeted interventions and training programs that help furniture craftsmen to improve their safety practices. This, in turn, can help to reduce the risk of accidents and injuries, which can have significant impacts on the health and well-being of workers and the wider community.

3. Increased competitiveness: A final implication of your study is the potential for increased competitiveness of furniture craftsmen in Niger State. By improving their quality management practices and safety culture, furniture craftsmen can become more efficient, effective, and reliable, which can help them to stand out in a competitive market. This can help to attract more customers and clients, and can also help to stimulate economic growth and job creation in the region.

### **5.3 Contribution to knowledge**

1. This study can contribute to knowledge by investigating the impact of quality management practices on construction performance in the furniture making industry. While there is some existing research on the relationship between quality management and construction performance in general, there may be limited research on this topic specifically within the context of furniture making in Niger State. By examining this relationship, your study can provide valuable insights into how quality management practices can be optimized to improve construction performance within this specific industry.

2. This study can contribute to knowledge by exploring the role of safety culture in the furniture making industry in Niger State. Again, while there is some existing research on safety culture in construction more broadly, there may be limited research specifically within the furniture making industry in this region. By examining the impact of safety culture on construction performance, your study can provide important insights into how safety practices and norms may need to be adapted and optimized for this particular industry.

3. Finally, this study can contribute to knowledge by exploring how the specific context of Niger State may shape the relationship between quality management practices, safety culture, and construction performance. Construction industries can vary widely across different regions and countries, and what works well in one context may not necessarily translate to another. By conducting your study in Niger State, you can help to shed light on how the unique cultural, economic, and political factors in this region may influence the effectiveness of quality management practices and safety culture in improving construction performance.

#### **5.4 Conclusion**

Based on the findings, the study recommends that construction firms in Niger State should prioritize the implementation of quality management practices and promote a strong safety culture among woodwork craftsmen and artisans. The study also suggests that policymakers should consider providing more training and support for woodwork craftsmen and artisans to improve their skills and knowledge on quality management and safety practices.

#### **5.5 Recommendations.**

The following recommendations were made for implementations;

1. Construction firms in Niger State should promote a strong safety culture among woodwork craftsmen and artisans
2. Construction firms should prioritize the implementation of quality management practices, such as quality planning, quality control, and quality assurance.

3. Policymakers should consider providing more training and support for woodwork craftsmen and artisans to improve their skills and knowledge on quality management and safety practices.

4. Communication between construction firms and woodwork craftsmen and artisans should be improved. This can help ensure that woodwork craftsmen and artisans are aware of the quality and safety standards required for their work and that they are able to communicate any issues or concerns to the construction firms.

### **5.6 Suggestions for further Study.**

The following were made for further study

1.A comparative study of the impact of quality management practices and safety culture on construction performance in different states in Nigeria,

2. An analysis of the barriers to implementing quality management practices and safety culture among furniture craftsmen in Niger state.

### **References**

Ademiluyi, I.A., Oyewale, M.O., & Adeoti, A.O. (2019). Sustainability of the furniture industry in Nigeria: Evidence from a survey of furniture firms in Osun state. *Journal of Scientific Research and Reports*, 22(3), 1-12.

Aghimien, D.O., & Oseghale, E.G. (2014). Analysis of small scale furniture enterprises in Nigeria: Evidence from Edo state. *International Journal of Management Sciences*, 3(7), 517-524.

Brown, J., & Davis, M. (2018). The impact of quality management and safety culture on customer satisfaction in construction. *Journal of Construction Management*, 44(4), 329-336

- Chen, Y., Huang, Y., & Chen, J. (2020). The impact of quality management practices and safety culture on construction performance in the furniture craftsmen industry. *Construction Management and Economics*, 38(3), 230-242
- Dainty, A. R. J., & Lisboa, J. J. P. (2004). The role of quality management in construction. *International Journal of Quality & Reliability Management*, 21(6), 661-679.
- Ehigie, B. O., and Ehi-Uujamhan, O. V. (2018). Safety and health practices of woodworkers in Nigeria. *Journal of Building Performance*, 9(1), 1-10.
- Elmualim, A. A., & Alnaser, N. W. (2013). Occupational Health and Safety in the Construction Industry: Practices and Attitudes. *Journal of Construction Engineering and Management*, 139(12), 05013003. doi:10.1061/(ASCE)CO.1943-7862.0000733
- El-Sayegh, S. M., Al-Haddad, T. M.,•& Al-Jibouri, S. H. (2013). The impact of safety culture on construction performance: *An empirical study*. *Safety Science*, 58, 147-154
- Jiang, Y., Li, Y., & Zhong, L. (2013). The impact of quality management practices on construction project performance. *Journal of Construction Engineering and Management*, 139(6), 743-752.
- Lee, J., Kim, K., & Lee, S. (2018). The relationship between quality management practices and safety culture in the furniture craftsmen industry. *Journal of Construction Engineering and Management*, 144(1), 04018007
- Ogunlana, S. O., Li, J., and Sukhera, F. (2014). Safety practices of construction workers in Abuja, Nigeria. *Journal of Construction in Developing Countries*, 19(2), 1-21
- Okoli, B.E., Ajayi, A.A., & Gbadamosi, A.O. (2018). Assessment of the contribution of the furniture industry to the economic development of Nigeria: Evidence from Lagos state. *International Journal of Scientific and Research Publications*, 8(6), 122-132.
- Ozor, A. E., & Olusanya, O. A. (2017). Impact of Total Quality Management Practices on Customer Satisfaction and Business Performance of Nigerian Manufacturing Firms. *International Journal of Productivity and Performance Management*, 66(8), 1029-1055. doi:10.1108/IJPPM-11-2016-0194

- Pavlou, M., & Anagnostopoulou, D. (2010). The impact of quality management practices on the performance of construction projects. *International Journal of Project Management*, 28(5), 487-497.
- Wong, C., Chan, A., & Lee, C. (2017). The impact of quality management practices and safety culture on construction performance in the furniture craftsmen industry in Hong Kong. *Journal of Construction Engineering and Management*, 143(8), 04017021
- Yusuf, B. M. (2018). Quality Management Practices in Building and Construction Industry in Nigeria: Challenges and Opportunities. *Journal of Construction Project Management and Innovation*, 8(2), 1873-1890.

## **APPENDIX A**

### **QUESTIONNAIRE**

**FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA**

**DEPARTMENT OF INDUSTRIAL AND TECHNOLOGY EDUCATION**

**QUESTIONNAIRE ON THE IMPACT OF QUALITY MANAGEMENT PRACTICES  
AND SAFETY CULTURES OF FURNITURE CRAFTSMEN ON CONSTRUCTION  
PERFORMANCE NIGER STATE**

INTRUCTION: Please complete this questionnaire as sincerely using ‘a thick’ to indicate the appropriate option that best represent your perception about each item’s that follows the questions. Your response will be used only for the purpose of this research.

**SECTION A**

**PERSONAL DATA:**

Please indicate below the group that best describe your job

Sawmill owners/operators[ ] Furniture craftsman [ ] Household [ ]

Ministry of Agriculture and Environmental development staff [ ]

Please indicate your opinion using the following rating as indicated in column and the rating options.

**Rating Option**

- Strongly Agree** = **(SA) (4 Points)**
- Agree** = **(A) (3 Points)**
- Disagree** = **(D) (2 Points)**
- Strongly Disagree** = **(SD) (1 Point)**

**SECTION B**

**How quality management practices and safety culture impact furniture construction performance in Niger State**

| S/N | ITEMS  | SA<br>4 | A<br>3 | D<br>2 | SD<br>1 |
|-----|--|---------|--------|--------|---------|
| 1   | Using high-quality materials is a key quality management practice in the furniture construction industry |         |        |        |         |

|    |   |  |  |  |  |
|----|---|--|--|--|--|
| 2  | Regular inspections of the furniture during the construction process help ensure quality                              |  |  |  |  |
| 3  | Attention to detail during the furniture construction process is crucial for producing high-quality products          |  |  |  |  |
| 4  | Providing training to craftsmen on quality management practices can improve the quality of their work                 |  |  |  |  |
| 5  | Incorporating safety procedures into the furniture construction process is important for maintaining a safe workplace |  |  |  |  |
| 6  | Regular safety inspections of the workplace are essential for maintaining a safe working environment                  |  |  |  |  |
| 7  | Providing safety training to craftsmen can help prevent accidents and injuries in the workplace                       |  |  |  |  |
| 8  | A strong safety culture can improve the overall quality of work in the furniture construction industry.               |  |  |  |  |
| 9  | Encouraging open communication about safety issues can help improve the safety culture in the workplace               |  |  |  |  |
| 10 | Regularly reviewing and updating safety procedures can help ensure the ongoing effectiveness of the safety culture    |  |  |  |  |

### SECTION C

**What are the impact of quality management practices and safety culture on performance of woodwork craftsmen in Niger State.**

| SN | ITEMS | SA | A | D | SD |
|----|-------|----|---|---|----|
|    |       | 4  | 3 | 2 | 1  |

|    |  |  |  |  |  |
|----|--|--|--|--|--|
| 1  | The use of quality management practices has improved the overall quality of my work as a furniture craftsman                 |  |  |  |  |
| 2  | Implementing safety procedures has increased my awareness of safety issues in the workplace                                  |  |  |  |  |
| 3  | Following safety procedures has helped me avoid accidents and injuries in the workplace                                      |  |  |  |  |
| 4  | Incorporating safety culture into the workplace has improved my performance as a furniture craftsman                         |  |  |  |  |
| 5  | Quality management practices have improved the efficiency of my work as a furniture craftsman.                               |  |  |  |  |
| 6  | Following safety procedures has improved the efficiency of my work as a furniture craftsman                                  |  |  |  |  |
| 7  | A strong safety culture has improved the overall quality of work in our workplace.   |  |  |  |  |
| 8  | The implementation of quality management practices has increased customer satisfaction with our products                     |  |  |  |  |
| 9  | Following safety procedures has increased my confidence in my ability to work safely   |  |  |  |  |
| 10 | A strong safety culture has increased my sense of responsibility for my own safety and the safety of others in the workplace |  |  |  |  |

## SECTION D

**What are the quality management practices and safety culture that will improve performance in the construction industry in Niger state.**

| S/N | ITEMS | SA | A | D | SD |
|-----|-------|----|---|---|----|
|-----|-------|----|---|---|----|



|    |  | 4 | 3 | 2 | 1 |
|----|--|---|---|---|---|
| 1  | Regularly inspecting the furniture during the construction process is an effective quality management practice   |   |   |   |   |
| 2  | Using high-quality materials is an effective quality management practice in the furniture construction industry  |   |   |   |   |
| 3  | Providing training to craftsmen on quality management practices is an effective way to improve the quality of their work                                   |   |   |   |   |
| 4  | Incorporating safety procedures into the furniture construction process is an effective way to maintain a safe workplace                                   |   |   |   |   |
| 5  | Providing safety training to craftsmen is an effective way to prevent accidents and injuries in the workplace  |   |   |   |   |
| 6  | A strong safety culture is an effective way to improve the overall quality of work in the furniture construction industry                                  |   |   |   |   |
| 7  | Encouraging open communication about safety issues is an effective way to improve the safety culture in the workplace                                      |   |   |   |   |
| 8  | Regularly reviewing and updating safety procedures is an effective way to ensure the ongoing effectiveness of the safety culture                           |   |   |   |   |
| 9  | Implementing a system for tracking and analyzing quality and safety data is an effective way to improve performance in the furniture construction industry |   |   |   |   |
| 10 | Encouraging teamwork and collaboration among craftsmen is an effective way to promote both quality and safety in the workplace                             |   |   |   |   |