IMPACT OF SOCIAL MEDIA USAGE ON PERFORMANCE OF CONSTRUCTION PROJECT

BY

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CERTIFICATION

This is to certify that project titled **IMPACT OF SOCIAL MEDIA USAGE ON PERFORMANCE OF CONSTRUCTION PROJECT** was carried out by **OLARENWAJU AFEEZ BABATUNDE** with matriculation number **HND/23/QTS/FT/0023** of the Department of Quantity Surveying, Institute of Environmental Studies, Kwara State Polytechnic, Ilorin, for Award of Higher National Diploma (HND) in Quantity Surveying.

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DEDICATION

The project is mostly dedicated to Almighty Allah for his Mercy, the custodian of Knowledge and citadel of wisdom for his infinite mercy towards me and also to my parents, friend and loved ones for their physical and spiritual effort on me to be successful in life.

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All praises and thanks are to Almighty Allah for his guidance and protection over me throughout my project program.

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CHAPTER ONE

INTRODUCTION

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2.0 LITERATURE REVIEW

ABSTRACT

The aim of the research was to practically measure the impact of social media usage on performance of construction project, Nigeria., (A case study of Kwara State). The purpose of this research is to understand the use of social media by architects in building projects. The study reviews extant literature on the social media usage on performance of construction project and its use in Nigeria. A quantitative research method through structured questionnaire was employed for data collection and analysis. This re/search project aims at examining the impact of social media usage on performance of construction project using in Kwara state as a case study which provide a framework for collaboration among key stakeholders in the construction industry

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In recent time, there had been a growing interest on social media technology as an evolving collaboration and digital transformation tools in the architecture, engineering and construction industry to reduce costs, increase quality and manage resources efficiently. Succar et, al., (2015), stated that there is consensus in the literature that social media and web base has the potential to revolutionize project delivery process by enhancing design and engineering creativity and ensure interdependency of the design, construction and operation of the built environment. The digital world is experiencing a revolution in the magnitude of data and information that is being captured and recorded in different fields Omranet, al. (2016). The field of construction is experiencing this trend toward digitization and automation. Innovative methods that make use of the immense amount of data that can be gathered at every stage of the construction process are now possible to technological advancement. The development of new technologies offers businesses and industry processes new ways to gain a competitive edge. Bilal et, al. (2020) The construction sector is considered as one of the biggest investment-draining sectors worldwide, with extremely high influence and contribution to economic development, however, this sector faces considerable barriers and challenges, such as low performance, frequent construction delays, quality issues and cost overruns.

Kubba (2012) described social media technology as a lifesaver due to its ability to identify and rectify errors at early design stage and accurately break down schedule of construction project into detailed tasks. As the construction industry started to embrace the concept of web base, Anton and Diaz (2014) suggested that the concepts should be implemented in the early stage of the building design process, as it can impact a project effectively. Zhao et al. (2021) reinforced this and noted that for a building to be energy efficient, Building Information Modelling as an enabling software can be used to simulate and predict the energy performance. Ku et, al. (2011) found that the Building Information Modelling technology has been welcomed by professionals in several countries and used to reduce cost, time, and enhance quality as well as environmental sustainability.

Popov et al. (2010) suggest that social media using provides a platform that facilitates the creation and sharing of information relevant for design, construction and maintenance of buildings over their entire lifecycle. Social media and is capable of supporting project integration into a collaborative process, to promote increase efficiency and reduce conflict in project delivery system Griloet, al. (2010). The completeness of the information enables better lifecycle management and sustainable building design Azharet, al. (2011). With the integrated information model, visualization of construction process and design details is easier which facilitates analysis of alternative solutions Popov et, al. 2(010) and identification of potential conflicts (Grilo et, al. (2010).

1.2 Statement of Research Problems

The move to adopt Social Media usage on performance of construction project (client side) and amongst different building professionals (Architects, Quantity Surveyors, Engineers etc) has been very slow. Few Architects have adopted but mainly for enhancing the visual quality of their presentation. This is deficiency, reduce unfortunate because of its enormous potentials to enhance of disputes, save costs and curb corruption Alufohaiet, et. al., (2012). A major setback to the full implementation of social media in the Nigerian Construction industry, as with every novel technological innovation across the globe, could be related to the lack of knowledge of improving productivity and of Web base technology - along with the beneficiary in the Nigerian Construction sector - amongst stakeholders. It is, to determine the level of knowledge of web technology in the imperative, as a Nigerian Construction Industry. This in turn, will serve as a basis for developing strategies for increased awareness in order to encourage a holistic adoption of social media and web base technology by all industry participants, and thus, achieve the needed productivity in the Nigerian Construction Industry.

1.3 Research Questions

More importantly, this research addressed the following research questions.

1. What are those benefits of using social media on performance of construction project?
2. What are the challenges affecting social media usage on performance of construction project?
3. What are those solutions to the current problem in using of social media among construction team in construction project?
4. What are the specific impacts of media technologies which are currently adopted in building construction sites.

1.4 Aim and Objectives of Study

1.4.1 Aim

The aim of the research was to practically analyze the impact of social media usage on performance of construction project, Nigeria.

1.4.2 Objectives

1. To identify the benefits of using social media on performance of construction project.
2. To analyze challenges affecting social media usage on performance of construction project.
3. To profer those solutions to the current problem in using of social media among construction team in construction project.
4. To identify impact of media technologies which are currently adopted in building construction sites.

1.5 Justification of the Study

The purpose of this research is to understand the usage of social media on performance of construction project, Nigeria. The study reviews extant literature on social media usage on performance of construction project and its use in Nigeria. A quantitative research method through structured questionnaire was employed for data collection and analysis. The sample frame consists of practicing quantity surveyors in registered Architectural, Engineering and Construction (AEC) firms in Nigeria. An invitation to participate in a social media Question Pro survey was e-mailed to quantity surveyor drawn from a database of around 1,500 AEC practices registered in Nigeria.

1.6 Scope and limitation of Study

This research project aim at examining the impact of social media usage on performance of construction project, Nigeria. As a case study which provide a framework for collaboration among key quantity surveyors in the construction industry.

This will study focuses specifically on those impacts of social media usage on performance of construction project. The research will consider various social media. However, due to resource constraints, the study may not comprehensively cover all aspects of Social Media management, and the findings may have limitations in their generalizability to other social media contexts, however area cover includes energy efficient system, social management and risk management measures.

1.7 Definition of Terms

1.7.1 Impact

Is the systematic basis for making inferences about the learning and development of students. It is the process of a forceful, even violent contact between two or more things," impact may be used to imply contact between two things, at least one of which is impelled toward the other, and using information to increase students' learning and development.

1.7.2 social media

Social Media technology is a process for creating and managing information on a construction project across the project lifecycle. One of the key outputs of this process is the social media technology, the digital description of every aspect of the built asset.

Social Media is the holistic process of creating and managing information for a built asset. from planning and design to construction and operations.

1.7.3 Performance

Performance is the act of performing; of doing something successfully; using knowledge as distinguished from merely possessing it.

1.7.4 Construction

A construction, sometimes just referred to as a 'project', is the organized process of constructing, renovating, refurbishing, retrofitting or adapting a building, or other built asset such as a tunnel or bridge

1.7.5 Project

Projects are design, plan, plot, and scheme. While all these words mean "a method devised for making or doing something or achieving an end," project often stresses imaginative scope and vision**. Their expertise extends to risk management, contract administration, and strategic decision-making, making them integral to project success.**

CHAPTER TWO

2.0 LITERATURE REVIEW

Introduction

One key competitive advantage of social media system its ability to promote greater transparency and collaboration between contractors and suppliers, and thereby reduce waste (procurement, process and material) through all levels of the supply chain. A key driver of the rapid adoption of the construction industry, quantity surveyor project took a largely risk concept, consideration and management of those risk associated with construction project required attention. Smith, et al. (2016).

Bocchini, et al. (2014), clarified that construction team application is to integrate all the concept that promote and prevents lost of lives and property, includes infrastructures and sustainable construction. In addition to Pearce and Ahn, (2013) opined that any project involved quantity surveyor most required the fast-tracking project planning as the first to manage risk, the planning process will facilitates what can go wrong, that negative, the pragmatic project managers know this type of thinking as preventative measures. While, Hubbard, (2020) says that some issues will inevitably come up in project and management strategy in place to know how to manage risks, through the planning processes.

The principal difference between social media and 2D CAD is that the latter describes a building by independent 2D views such as plans, sections and elevations. Editing one of these views requires that all other views must be checked and updated, an error-prone process that is one of the major causes of poor documentation (Azhar et al, 2008). At the technical core of Social Web base technology is the software that enables 3D modeling and information management (WSP Group, 2013). A basic premise of social media is collaboration by different stakeholders during different phases of project life cycle which makes it possible to insert, extract, update or modify information in the social media technology process to support and reflect the roles of that stakeholder. Social media was conceived to remedy the problem of fragmentation and error by creating a system to house or manage all of the information needed in a particular project in a single repository that could be accessed by all project participants and readily incorporated into all project documents (Cyon Research, 2003; Khemlani, 2003)The ability to keep this information up to date and accessible in an integrated digital environment gives architects, engineers, quantity

surveyors, and owners a clear overall vision of their projects, as well as the ability to make better decisions faster - raising the quality and increasing the profitability of projects (Autodesk, 2003).

2.2 Challenges affecting social media usage on performance of construction project.

2.1.1 Limited Access to the Internet

In Nigeria there are few internet providers that provide internet gateway services to customers who are often exploited and defrauded. The few reputable companies, which render reliable services, charges high fees thus limiting access to the internet. The greatest technological challenges in Nigeria is how to establish reliable cost effective internet connectivity. Ikediashi, et, al. (2017) Without access to the internet, construction companies in Nigeria have been unable to take advantage of the numerous advantages of the internet. They are unable to take advantage of e-commerce, which allows for quick and secure transactions. They are also unable to access the latest information related to the construction industry, which is essential for efficient operations. Additionally, without the internet, businesses in the construction industry have been unable to avail themselves of the most up-to-date technologies, which would allow them to remain competitive.

2.1.6 Lack of Relevant Software

Extensive software infrastructure is required more on the background servers and network to effectively manage the smart objects and give services to assist them Mattern et, al., (2015). Muralidharan, Roy, and Saxena (2016) also explained that in smart objects software systems will have to function with minimum resources as in traditional embedded systems. The lack of relevant software in the construction industry in Nigeria is a major issue that needs to be addressed. Construction is a complex process, and software technology can help make the process easier, faster and more efficient. Unfortunately, due to the lack of relevant software solutions in Nigeria, the construction industry is lagging behind other countries in terms of technological advancements. Software developers and publishers in the developed countries have been trying for long to develop software and multimedia that have universal application but due to a great discrepancy between relevant software supply and demand in developing countries like Nigeria. Even if Nigerian tires to approach this software famine by producing software that would suit its educational philosophers, there are two major problems to be encountered. First, the cost of producing relevant software for the country construction industry system is enormous. Second, there is dearth of

qualified computer software designers in the country to overcome this, people need to be trained in instructional design Olorunkiya, et, al. (2017).

2.1.7 Lack of Skill

In Nigeria, the lack of skilled labor in the construction industry is a major problem. According to a report by the Nigerian Institute of Construction Technology and Management (NICTM), the country is facing a crisis due to the shortage of skilled professionals in construction. This is due in part to the industry's lack of formal training and education for workers, resulting in a lack of properly trained professionals. Additionally, the poor infrastructure in the country has made it difficult for skilled labor to be effectively engaged in the industry. The lack of skilled workers also impacts the safety of construction sites. Poorly trained workers are more likely to make mistakes and result in accidents, putting workers and the public at risk. Additionally, the lack of quality control in the industry means that projects are often not built to the required standards, leading to costly repairs or replacements.

2.1.8 Cost

The price of computer hardware and software continues to drop in most development countries but in developing countries, such as Nigeria, the cost of computers is several times more expensive. While a personal computer may cost less than a month’s wages in the United States, the average Nigeria worker may require more than years‟ income to buy one. Cost is one of the challenges when engaging in new investment but becomes insignificant when the return on that investment is easily understood. The cost has been one of the trickiest challenges in the adoption of information technology. The initial cost, maintenance cost and all other cost associated with information technology has slowed the rate of usage in the construction industry (Davies 2015).

2.1.9 Power Supply

Movement of things occurs and most are not connected to power supply, for it to be smart they are self-powered from a sufficient energy source (Gubbiet al. 2013). There are passive RFID transponders that do not require their self-energy source, their communications and functionality range are very restricted. There is hope on future communications units and low power processors for embedded systems that could work with less significant vitality. Energy saving is an important factor not only in system architecture and hardware but also in software. Protocol stacks

implementation is an example, where each transmission byte needs to justify its existence (Jain 2014).

2.2 Determine the benefits of using social media on performance of construction project.

Automation through Social Mediatechnology also improves time and cost management. It streamlines the design process across the company and facilitates automation of emails via knowledge database. Other benefits include ability to visualize what is to be built in a simulated environment, higher reliability of expected field conditions, allowing for opportunity to do more prefabrication of materials off site (Rajedran and Clarke, 2011). According to Gordon and Holness (2018), the building design development can continue with the provision of automatic bills of material and generation of automatic shop drawings for everything from structural steel to sheet metal duct fabrication, to fire protection and piping fabrication, to electrical cabling and bus duct layouts.

2.2.2 Improved communication

Information technology tools such as project management software, cloud-based document management systems, and mobile apps facilitate better communication and collaboration among project stakeholders, including architects, engineers, contractors, and clients.This leads to improved coordination, reduced delays, and enhanced decision-making (Adewale et al., 2018).

2.2.2 Accurate project planning and design

Computer-aided design (CAD) software can create accurate and detailed 2D and 3D drawings of building plans, reducing the likelihood of design errors and omissions. Additionally, project management software can help construction professionals to track progress and identify potential issues before they become problems Ogunsemi, et, al. (2010).

2.2.6 Increased efficiency

Information technology applications such as Building Information Modeling or Plan swift have been shown to improve the efficiency of construction processes in Abuja. BIM enables

collaborative and integrated workflows, reduces rework, and minimizes errors, resulting in cost and time savings (Alinaitwe et al., 2017).

2.2.7 Improved safety

Information technology applications can help ensure better quality control and safety on construction sites in Abuja. For example, remote monitoring and sensing technologies can detect and address quality and safety issues in real-time, preventing accidents and improving overall construction quality (Adeleke et al., 2016).

2.2.8 Enhanced project cost control:

Information technology applications can lead to cost savings in construction projects in Abuja. For instance, the use of construction management software can streamline procurement processes, optimize resource allocation, and reduce material wastage, resulting in cost-effective construction (Buba et al., 2020) In the past few decades, the construction business has experienced a shift from the paper-based method of service delivery to electronic. The use of information technology systems in building construction has become intrinsic to the job role. In most developed countries, failure to use technology during construction would put you at an inconceivable disadvantage against other building contractors. The construction industry woke up to the reality of integrating computers into its processes as early as 1980. Professionals in developed economies have shown commitments to the application of technology in their industry, and over the years, it has brought tremendous benefits. In the early days, computers advanced standard processes such as cash flow forecasting, project management, accounting, and cost control. But, there were very few specialist computer programmes for single roles within the construction industry. More recently, advancements in cloud computing have turned construction sites into offices, allowing for more accurate estimates made on site. It has also led to considerable increases in efficiency and the resultant cost savings. Technology has led to faster construction projects and increased client satisfaction. But, on top of this, there has been the development of specialist computer software, like BIM, Plan swift to help with specific roles. Compared with the conventional usage of IT such as design and programming software, the application of advanced information technology tools such as “web based project management,” “3D design visualization,” “E-tendering” and “Geographical information system (GIS)” have not yet had a good penetration into the Nigerian construction industry. This finding is in line with the contribution of Oyediran (2005) which

stressed that the construction industry has been sluggish in the application of information technology despite the amenability of its process to information technology operation. Most of the organizations surveyed make use of computers as a tool for enhanced business process which is in line with Oldaapo (2006) which indicated that the construction industry in Nigeria has during the past few years increased its use of information technology. The response also agreed with Oladapo (2007), which indicated that most of the respondents were optimistic about the future of information technology applications in the Nigerian construction industry.

2.3 Solutions to the Current Problem in using of social media among construction team in construction project.

According to Farley (2011), "lack of Web/Internet technology object libraries" affects production of drawings because some products are not available in the software. Lack of constant electricity and lack of internet connectivity affects output of work in the offices. (Abubakir et al, 2014). Constant use of generators increases cost of running the offices. A lot of professionals in the construction industry are still not aware of the technology. For Social media technology to be used effectively, all the professionals involved in a project have to be aware of it. To increase knowledge and promote the adoption of Social Media usage in the Nigerian construction industry, here are some recommendations: Education and training; Government support; Industry collaboration; Demonstrate benefits; Technology accessibility; Research and development.

2.3.1 Education and Training

Olorunkiya, (2017) Education and training refer to the process of acquiring knowledge, skills, and values through formal or informal instruction, guidance, and experience. Education helps individuals develop their minds, skills, and character, enabling them to succeed in their personal and professional lives.

Encourage educational institutions to incorporate web technology courses into their curriculum, providing quantity surveying with the necessary knowledge and skills. Offer training programs, workshops, and seminars to professionals already in the industry to enhance their understanding and expertise in BIM.

2.3.2 Government Support

Ebiloma, et, al. (2017) Government support refers to the assistance and resources provided by government agencies to various segments of society, including individuals, businesses, and organizations. This support can take many forms, such as:

Financial assistance: Grants, loans, subsidies, and tax credits; Regulatory support: Favorable laws, regulations, and policies that encourage growth and development; Training and development programs; Workforce development, skills training, and education initiatives; Social services: Healthcare, welfare, and social security benefits; Procurement and contracting opportunities: Government contracts and procurement programs; Information and resources: Data, research, and expertise shared by government agencies; Trade promotion: Export assistance, trade missions, and international market development; Innovation and R&D funding: Funding for research, development, and innovation initiatives. Continue government initiatives to promote social media technology adoption in public infrastructure projects and enforce policies that require social media implementation. Provide incentives and funding for companies that invest in web/internet and training. Olorunkiya, J.O (2017).

2.3.3 Industry Collaboration

Foster collaboration among industry stakeholders, including architects, engineers, quantity surveyors, contractors, and project owners. Encourage knowledge sharing, case studies, and best practices through industry associations, conferences, and seminars. Mohammed, et, al. (2017) Industry collaboration refers to the partnership and cooperation between different organizations, businesses, and stakeholders within a specific industry or sector. Oladokun, M.G., (2017). This collaboration aims to achieve common goals, share resources, and leverage each other's expertise to drive innovation, growth, and success.

Benefits of industry collaboration include:

Increased innovation and competitiveness; Improved efficiency and reduced costs; Enhanced customer value and satisfaction; Expanded market reach and access; Shared risk and resource utilization; Development of new business models and revenue streams; Improved industry reputation and credibility; Enhanced skills and knowledge sharing.

2.3.5 Demonstrate Benefits

Showcase successful projects and highlight the benefits of using it in terms of cost savings, improved project coordination, reduced errors, and enhanced productivity. Conduct research and share data on the positive impact of web technology adoption in the Nigerian context. Khemlani, et, al. (2007) Demonstrate benefits refers to the process of showing and communicating the value and advantages of a product, service, project, or idea to stakeholders, customers, or decision-makers. It involves providing evidence, data, and examples to demonstrate how something can solve a problem, improve a situation, or meet a need.

some ways to demonstrate benefits include:

Case studies and success stories; Data analysis and statistics; Customer testimonials and reviews; Product demonstrations and trials; Pilot projects and proof-of-concepts; Cost-benefit analysis and ROI calculations; Comparisons with alternatives or competitor; Expert endorsements and third-party validation.

2.3.5 Technology Accessibility

Technology accessibility refers to the design and development of products, services, and environments that are usable by people with disabilities, including those with visual, auditory, motor, or cognitive disabilities. It aims to ensure equal access to technology for all individuals, regardless of their abilities Olatunji, et, al. (2010)

Accessibility in technology includes:

Web/internet accessibility making websites and online content accessible to all; Software accessibility: designing software that is usable by people with disabilities; Hardware accessibility: designing devices that are accessible and usable; Mobile accessibility making mobile devices and apps accessible; Assistive technology providing tools and software that assist people with disabilities

Ensure access to web-based software and technology solutions by making them affordable and widely available. Explore partnerships with software providers to offer discounted licenses or develop localized versions of web-based software that cater to the specific needs of the Nigerian construction industry.

2.3.6 Research and Development

Research and Development (Research and Development) refers to the process of creating new or improving existing products, services, processes, or technologies through systematic investigation and experimentation. It involves the generation of new ideas, prototyping, testing, and refinement to drive innovation and growth. Maqsood, et, al. (2012)

Research and Development (encompasses various activities, including: Basic research Understanding fundamental principles and phenomena; Applied research: Developing practical applications from research findings; Development Creating prototypes, testing, and refining products or services; Engineering: Designing and improving processes, systems, and technologies;) Technology transfer Sharing knowledge and expertise to leverage existing innovation Support research initiatives focused on web-based technology in the Nigerian construction industry. Encourage academic institutions, research organizations, and industry associations to conduct studies and publish findings that can contribute to knowledge sharing and inform best practices. Ogwueleka, A.C et. al.,(2017).

By implementing these recommendations, the Nigerian construction industry can increase its knowledge and understanding of web/internet, leading to improved productivity, better project outcomes, and enhanced collaboration among stakeholders.

2.3.7 Enhancing Safety Training and Education

Investing in comprehensive safety training and education programs is critical for improving safety performance on construction sites. El-Safty et al. (2016) emphasize the importance of providing regular safety training sessions, hazard identification workshops, and toolbox talks to equip workers with the necessary knowledge and skills to mitigate risks. Continuous education and awareness campaigns help reinforce safety protocols and promote a safety-conscious work environment with a view to Emphasizing Risk Assessment and Management. Ibrahim, Y.M et, al., (2017).

2.3.8 Leveraging Technology for Quality and Safety

The adoption of technology solutions can significantly enhance impact of social media usage on project performance on construction sites. Building Information Modeling (BIM) and digital tools

enable real-time collaboration, improve communication, and facilitate accurate data sharing (Li et al., 2019). Implementing Building Information Modeling (BIM) integration supports clash detection, efficient design coordination, and safety planning through virtual simulations. The utilization of drones, wearable devices, and IoT sensors can also aid in monitoring and ensuring compliance with safety protocols with a view to encouraging continuous improvement and lessons learned.

2.3.9 Encouraging Continuous Improvement and Lessons Learned

Promoting a culture of continuous improvement is essential for sustaining and enhancing impact of social media usage on project performance systems. Organizations should encourage regular evaluation of processes, procedures, and outcomes to identify areas for improvement. Lessons learned from past projects and incidents should be documented and shared to prevent similar issues from occurring in the future. By fostering a learning environment, organizations can continuously enhance their quality and safety practices.

2.3.10 Promoting Effective Communication and Collaboration

Open and effective communication among project stakeholders is crucial for improving impact of social media usage on project performance systems. Chen et al. (2018) emphasizes the need for clear lines of communication, including regular project meetings, site inspections, and formalized reporting mechanisms. Effective collaboration between contractors, subcontractors, suppliers, and design professionals ensures that quality and safety considerations are integrated throughout the project lifecycle.

2.3.11 Encouraging Worker Engagement and Empowerment

Engaging and empowering workers is essential for creating a proactive safety culture. Johnson et al. (2017) highlights the significance of involving workers in safety committees, hazard

identification programs, and decision-making processes. Workers who feel valued, involved, and empowered are more likely to proactively identify and address potential safety hazards, contributing to a safer work environment.

2.4 Impact of Media Technologies which are currently adopted in Building Construction Sites.

Information technologies or software application are available to support most aspects of a construction project. These applications can be grouped into the following categories (Sun & Howard, 2004):

Building Information Modeling (BIM) Software; Web-Based Management System; Computer Aided Design and Visualization; Building Engineering Applications; Computer Aided cost Estimation; Project and Information Management Planning; Scheduling and Site Management.

2.4.1 Building Information Modeling (BIM)

Software Building Information Modeling (BIM) Implementation: BIM is a digital representation of a building's physical and functional characteristics that can be used for design, construction, and operation. It has been increasingly adopted in the construction industry worldwide, including in Abuja. Adewale et al, (2017). The use of BIM provides space for better collaboration because each person and expertise area can add their piece to the same model, instead of broken out onto multiple versions of a 2D paper drawing. This way, the model evolves immediately as people contribute, streamlining the process and increasing efficiency. BIM also helps with problem solving in the design and planning stages of a project, by automating clash detection and providing a more complete picture of the project. Succar and Kassem (2015), describe BIM as a collection of interacting structures, procedures, and technologies, creating a framework during the building's life cycle to handle the critical building design and project data in digital format. BIM functions as a shared network of information for a project and plays a supporting role in decision-making during its life cycle. Different stakeholders can have varying views on BIM roles. For example, architects tend to use BIM to improve productivity, coordination, and business transactions, while contractors are more likely to schedule, estimate, and carry out processing.

By using BIM in the preconstruction phase, it could increase design effectiveness by executing clash discovery and clash analysis; for scheduling, it could enable the project manager and contractor to track progress against logistics and timelines established while making the work sequence, equipment, and materials observable; also, it could allow generation of takeoffs, counts, and measurements by forming a three-dimensional project model and making specific estimation possible. Furthermore, in the construction phase, BIM enables the presentation of the construction method, comprising entrance and exit roads, traffic issues, site materials, and types of machinery; it enhances cost regulation by providing more accurate tracking of cash flow; and it enables real time work tracking, quicker resource movement, and more useful site supervision. Researchers point out that it is beneficial to adopt BIM at the early stage of the project. Farley C. et. al., (2020)

2.4.2 Web-Based Technology

System From the very beginning of IT application, the benefit of web technologies in construction companies can be calculated. The web-based management framework is also used as an instrument for linking and obtaining multiple knowledge sets. Ahmad, et, al. (2017) There are different types of systems, such as a web-based decision support system, a web-based project management system, a shared online arrangement update, a web-based knowledge management system, and a management framework. Web-based technology systems are expected as remedial solutions to enhance communications in construction projects while improving the productivity, efficiency, and quality of products. Gubbiet A. Q., et al., (2019).

The method requires the transferring and processing of the project correlated data and dispersed project members to be linked in electronic bases with the project members. The use of media technology is proposed to have the benefits of bringing efficient collaboration, coordination, and communication, and decision-making methods.

2.4.3 Computer Aided Design and Visualization

Computer Aided Design (CAD) software is widely used by design professionals. Bala, et, al. (2014) Other popular CAD software includes Microstation, ArchiCAD, MiniCAD, FastCAD, Autodesk Revit etc. These CAD programs have largely replaced the traditional drawing board at the production information stage. The basic function of CAD tools is allowing the user to build up drawings by manipulating lines, circles, rectangles and texts interactively on the screen. The clear

advantage of CAD software is the ability to allow editing which means delete, move, copy, rotate, scale, mirror etc. Furthermore, since the drawing can be saved at any stage, the designers are able to keep various versions of the building layout for later study. Kado, et, al. and (2014). Once the geometrical information of the building design is stored in a CAD package, different views of the building can easily be produced. Visualization and animation systems, like 3D studio, can produce photo-realistic, static, and moving images, so that the clients can view the final appearance of the building at the design stage. The emerging Virtual Reality technology even allows the user to interact with the design model and experience the building in simulated reality settings.

2.4.4 Building Engineering Applications

Nowadays, construction industry clients have ever-higher expectations. They want their buildings to look good, to be safe, to provide comfortable living environments for their occupants, to consume less energy in operation, etc. The ever more complex demands on the building design process have given rise to the need for a new approach to building engineering design based on computer software. Ali et al, (2018). Once a building is constructed, it is very costly to correct any design defects. It is, therefore, important to simulate accurately the building's performance at the design stage so that problems can be identified and solved. Over the years, a variety of methods and algorithms have been developed to predict building performance in thermal, lighting, acoustics, and structural aspects. Because of the complex and tedious calculations that involve these simulations, it was nearly impossible to carry them out before computers. During the last two decades, a range of building engineering applications have been developed for energy analysis, HVAC design, structural analysis, lighting simulation, etc. The benefit of these applications is that they allow designers to evaluate alternative design solutions in order to reach optimum design. Examples of this software are: ATEAN from Carrier, and CARGASW from Clima soft, that offer comprehensive range of software options for climatic energy design; CALCULUX for lighting and building services design, CYPE INGENIEROS S.A. for structural design, COSMOS for finite elements analysis, DUCTSIZE from Elite Software for electricity and water nets design Azhar, S., Khalfan, (2015)

2.4.5. Computer Aided Cost Estimation

Coates, et, al. (2012) suggest that Controlling costs is one of the most important requirements during a construction project. To achieve this, contractors and subcontractors must first make accurate cost estimation. Rigorous project accounting must then be used to control the spending. Today, there are sophisticated computer software packages, such as Esti-Mate, Manifest, FBS-Estimator, and PRESTO from Soft, GO from Star, ITEC and ARQ from AM2, which allow project managers to make estimations and to keep track of project spending. Other software can help to measure, count, compute and tabulate quantities, lengths, areas, volumes, etc., of objects found in plans and specifications. Furthermore, most cost estimating programs can be integrated with databases of costs for labour, materials and equipment. Arayici, et, al. (2012) The advantage is that cost data do not need to be re-entered, thus improving the celerity in estimating and avoiding errors. Computer based estimation of costs archives and retrieves large volumes of resource, cost and productivity information, makes fast and accurate calculations and presents results in an organized, neat and consistent manner.

2.4.6 Project and Information Management

Abdulrazaq, et, al. (2017) The construction process is an information intensive one during which a huge amount of information is generated and consumed by all the professional involved. The common type of information includes site survey, cost analysis, design drawing, documents, correspondence, fax, computer files or e-mails. Electronic Document Management System can create an environment in which disparate forms of information can be linked together, within the context of a project or organization, to achieve easy access and control. All the previous tools and software for cost estimating, planning and scheduling are generated in a specific stage of the project.

Adewale Y. (2018), agreed that sometimes this information is updated, modified and consulted at any moment of the project. Consequently, Document Management Systems are tools that comprise whatever information throughout the life cycle of the project, from the conception of the need to the maintenance. Electronic Document Management Systems are applications that can be linked to Social Media Management Systems to improve communication among partners and between them and the management of 15 the project

2.5 Review of Empirical Studies

Studies have been carried out to determine the critical success factors, the challenges and enablers to information on Social Media applications in construction industries to harness the technology and streamline business process in emerging economies.

Ugwu et al (2006) discuss further details on the research. There is an abundance of documented literature that describes various projects in construction, which focus on IT-driven construction process innovation. However, while the majority of the research focuses on developing improved products, process and computational models, there is a noticeable dearth of research that focuses on issues and factors that impinge on the uptake of IT systems in construction, including stakeholders‟ perceived benefits cost and risks of IT systems in practice Ugwu et al (2006).

An adequate understanding of perceived and expected benefits would facilitate an unambiguous understanding of user requirements and subsequent translation into system functional specification during development. IT implementation in construction results in significant changes and potential improvements in design and management processes within the organization. It is therefore necessary to investigate critical success factors as well as inhibiting factors. According to Oyewobi (2015), many of the professionals in the Nigerian construction industry are still lagging behind in the adoption of social media usage compare with their counterpart in other developing nations of the world despite the globalization in technological advancement.

Numerous academic studies have been conducted in the construction industry's use of information technology, especially in light of the development, application and adoption of social media. They fall into the following categories:

Some researchers have looked at social media applications and adoption in a particular country: (Yan and Damian 2008; Hosseini et al. 2016; Zhao and Pienaar 2018; Chan et al. 2019; Tan et al.2019; Ullah et al. 2019). 29

Others have looked at information web/internet technology application and adoption in a particular field of Construction (Okumus et al. 2017), (Zhang and Guo 2019).Particularly intensely was this researched into the application and adoption of the web/internet technology which has

been a kind of a dominant and umbrella topic over the last two decades: (Dainty et al. 2017; Ahmed 2018; Alreshidi et al. 2018.

More research looked at the issue methodological-ally, trying to group the challenges systematically and link them with one another (Stewart et al.2004; Peansupap and Walker 2005; Hosseini et al. 2016; Chen et al. 2017; Ahmed 2018; Oesterreich and Teuteberg 2019).

2.6 Summary of Literature Review

Construction industry has lagged behind other sectors in terms of applying social media Technologies. In the main, the boards of operating construction companies are dominated by engineers and surveyors whose knowledge of computing is very often limited to what systems have been implemented at head office, and whose interaction with computer is limited to occasional meetings with senior computer professionals rather than fellow engineers. Their general view is that the implementation of any new system takes a long time, is expensive and involves 'outsiders', and this is aggravated by with the degree of doubt in terms that it's generally believed that the end product will in any case not achieve its initial specification. Nevertheless, the construction industry uses a variety of technologies nowadays, including online tools, spreadsheets, word processors, and others. From the first stages of conception, design, and implementation through the stage of facility management, information is used and needs to be handled. Manual classification becomes impractical when construction companies use information web technology more frequently and electronic papers become more widely available. With such amount of information, Document Management Systems which are considered as a glue or integration of all the other software for cost estimating, planning, scheduling, etc., generated in a specific stage of the project, are an indispensable tool for the current Project Management activities.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter discussed the methodology that will be adopted for achievement of set aim and objectives, these includes: Sample Size. Research design, Population, Sampling frame, method of collecting data, method of administering data, test of validity and reliability of data, method of data presentation collection and analysis

3.2 Research Design

As stated by (Cheek 2008), research design is referred to as the method of changing a research idea into a research plan, which can be carried out in practice by a researcher. It involves a number of considerations from the use of particular research method, to data collection and analyses (Cassim, 2014). This research adopted, quantitative approach in the form of a well-structured questionnaire survey which assess green building perceptions on the assessing the impact of social media usage on performance of construction project, while qualitative will be use for the description of data obtained.

3.3 Population of Study

Research population is referred to as a collection of all cases that conform to some carefully chosen set of criteria. The population elements are the unit members of a population: for example, people, social situations, social actions, places, events, time or things (Blaikie, 2010). The research population for this study is the public construction firms/organizations in Kwara state, Nigeria, such as Quantity Surveyor, Architect, Builders, Estate Management (Developers), Civil engineering etc.

3.4 Sampling Size

The sufficiency of a sample size is measured by exactly how fine it represents the whole population of participants from the section it is drawn. The sample size for this research 50 constitute project managers, project supervisors, contractors, Architects, Quantity Surveyor, Engineers, Builders and Technicians.

3.5 Sampling Techniques

A stratified random sampling technique will be employed to ensure representation across different neighboring communities of Kwara state polytechnic, Ilorin. The population will be stratified based on the type of the neighboring communities. From each stratum, a proportionate sample will be selected. A sample size of 50 respondents will be considered large enough for the study.

3.6 Method of Data Collection

Based on the objectives of the research, a well-structured questionnaire was employed as a means of data collection on appraisal of green building cost effectiveness in the construction of commercial building in Nigeria in Kwara State, Nigeria.

3.7 Method of Administrating of Data

The researcher with the help of two research assistants will administered the questionnaires to the respondents by hand. The respondents will be assured of their privacy and allowed enough time to respond to the questionnaire items before retrieval. This method of administration is adopted to ensure timely and high response rate.

3.8 Test of Validity and Reliability of Data

This refers to the extent to which data accurately and appropriately represents the concept or phenomenon it is intended to measure or describe (Encyclopedia, 2023). Ensuring the validity of the collected data was crucial to maintaining the research's credibility. To enhance data validity, multiple measures were employed. The research instrument underwent a rigorous validation process, including expert reviews and a pilot study. The use of diverse data collection methods and sources, such as surveys and interviews, contributed to data triangulation and increased the overall validity of the findings.

By following these rigorous methodological procedures, the research aimed to generate reliable and meaningful findings regarding the assessing the impact of social media usage on performance of construction project

Ensuring the validity of the data is crucial for drawing reliable conclusions from the research. Several measures will be implemented to enhance data validity. Firstly, the questionnaire will undergo a content validity check by experts in the field to ensure it accurately measures the

intended research constructs. Finally, member checks will be conducted by verifying the interpretations and findings with a subset of the respondents to ensure accuracy and validity.

3.9 Method of Data Presentation and Analysis

Data analyses is the systematic organization of the raw data into a meaningful pattern, which involves inspecting, sorting, transforming and displaying the data (Babbie, 2007). Since the research involve the concept of a single approach which is the questionnaire, the method of data analyses included: Relative Important Index (RII) and Mean Item Score (MIS) ranking.

$$RII = \frac{\sum XiYi}{\sum Xi}$$

Where: $RII = RelativeImportanceIndex$

$\sum = SummationNotation$

$Xi = NumberofResponse$

$Yi = ValueofRating$

$$MIS = \frac{\sum fx}{\sum f}$$

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the analysis of the questionnaire responses obtained from a sample size of 50 participants on "Impact of social media usage on performance of construction project in Kwara State". The analysis includes the use of frequency tables and charts to summarize and present the data in a clear and organized manner.

4.2 Data Presentation Descriptive Statistics

Table 4.1: Demographic Information of Participants (n = 25)

Professional discipline of respondents	**Frequency**	**Percentage**
Project Manager	16	24%
Civil Engineer	10	28%
Architect	10	16%
Quantity Surveyor	10	20%
Builder	4	12%

4.1.1 Professional discipline of respondents

Source: Fieldwork, 2025

4.1.1: Professional discipline of respondents: The participants had varied Professional discipline. The majority (24%) had Project Manager, followed by 28% with Civil Engineer, (16%) with Architect, (20%) with Quantity Surveyor and (12%) with Builder.

Academic Qualification	Frequency	Percentage
HND	16	24%
B.Sc/B.Tech	10	20%
PGD	12	28%
M.Sc/M.Tech	5	12%
Ph.D	7	8%

4.1.2 Academic Qualification

Source: Fieldwork, 2025

4.1.2: Academic Qualification: The study included participants with different Academic Qualification in construction projects. HND accounted for 24% of the participants, B.Sc/B.Tech for 20%, PGD for 28%, M.Sc/M.Tech for 12%, and PhD for 8%.

Years of experience in the building construction industry	Frequency	Percentage
Less than 5 years	10	32%
16-20 years	10	24%
6-10 years	11	16%
Above 20 years	10	12%
11-15 years	9	16%

4.1.3 Years of experience in the building construction industry

Source: Fieldwork, 2025

4.1.3: Years of experience in the building construction industry: The participants years of experience in construction industry. Less than 5 years accounted for 32% of the participants, 16-20 years for 16%, Above 20 years for 12% and 11-15 years for 16%.

The data presented in Table 4.1 provides insights into the demographic information of the participants in the study on “Impact of social media usage on performance of construction project in Kwara State." Here is the interpretation of the data:

Professional discipline of respondents: The participants had varied Professional discipline. The majority (24%) had Project Manager, followed by 28% with Civil Engineer, (16%) with Architect, (20%) with Quantity Surveyor and (12%) with Builder.

Academic Qualification: The study included participants with different Academic Qualification in construction projects. HND accounted for 24% of the participants, B.Sc/B.Tech for 20%, PGD for 28%, M.Sc/M.Tech for 12%, and PhD for 8%.

Years of experience in the building construction industry: The participants years of experience in construction industry. Less than 5 years accounted for 32% of the participants, 16-20 years for 16%, Above 20 years for 12% and 11-15 years for 16%.

4.2.1 Challenges affecting social media usage on performance of construction project.

Challenges affecting social media usage on performance of construction project.	**Frequency**	**Percentage**
Limited Access to the Internet	43	86%
Lack of Relevant Software	50	100%
Lack of Skill	45	90%
Cost	46	92%
Power Supply	47	94%

Table 4.2.1 shows that Most of the respondents agreed that, Lack of Relevant Software **with 50%, Power** Supply with 47%, **followed by** Cost with 46%, Lack of Skill with 45%, Limited Access to the Internet with 43%.

4.2.2 Determine the benefits of using social media on performance of construction project

Determine the benefits of using social media on performance of construction project.	**Frequency**	**Percentage**
Improved communication	50	100%
Accurate project planning and design	40	80%
Increased efficiency	50	100%
Improved safety	50	100%
Enhanced project cost control	45	90%

Table 4.2.2 shows that Most of the respondents agreed that, Improved communication, Increased efficiency, Improved safety **with 50%, and Enhanced** project cost control with 45%, **followed by** Accurate project planning and design with 40%.

4.2.3 Solutions to the Current Problem in using of social media among construction team in construction project

Solutions to the Current Problem in using of social media among construction team in construction project	Frequency	Percentage
Education and Training	50	100%
Government Support	30	60%
Industry Collaboration	40	80%
Demonstrate Benefits	50	100%
Technology Accessibility	43	86%
Research and Development	41	82%
Enhancing Safety Training and Education	30	60%
Leveraging Technology for Quality and Safety	40	80%
Encouraging Continuous Improvement and Lessons Learned	41	82%

Promoting Effective Communication and Collaboration	45	95%
Encouraging Worker Engagement and Empowerment	50	100%

Table 4.2.3 shows that Most of the respondents agreed that, Education and Training, Demonstrate Benefits and Encouraging Worker Engagement and Empowerment with **50%,** Promoting Effective Communication and Collaboration **with 45%,** Technology Accessibility **with 43%,** Industry Collaboration and Leveraging Technology for Quality and Safety with 40%, **followed by** Research and Development and Encouraging Continuous Improvement and Lessons Learned with 41%, then Government Support and Enhancing Safety Training and Education with 30%.

4.2.4 Impact of Media Technologies which are currently adopted in Building Construction Sites.

Impact of Media Technologies which are currently adopted in Building Construction Sites	**Frequency**	**Percentage**
Building Information Modeling (BIM)	50	100%
Web-Based Technology	30	60%
Computer Aided Design and Visualization	40	80%
Building Engineering Applications	50	100%
Computer Aided Cost Estimation	43	86%
Project and Information Management	41	82%

Table 4.2.4 shows that Most of the respondents agreed that, Building Engineering Applications, Integration, Building Information Modeling (BIM) **with 50%, and** Planning, Scheduling and Site Management with 46%, **followed by Business** and Information Management

with 45%, then Computer Aided Design and Visualization and Computer Aided Cost Estimation with 40%, Web-Based Technology with 30%.

4.3 Discussion of Findings

The present study aimed to Impact of social media usage on performance of construction project in Kwara State. The findings from the data analysis are presented and discussed below:

From table 4.2.2 above 6 (12.7%) of respondents are under Architect, 5 (10.6%) respondents are under Civil Engineer, 10 (21.2%) are under Builder, 19 (40.4%) respondents are under Quantity Surveyor while 7 (14.8%) of the respondent are under Project Manager. Respondents registered under Quantity Surveyor have the highest value percentage 40.4%.

Table 4.2.3 above 10(28.7%) of respondents have HND qualifications, 10(20.8%) with B.sc/B.Tech, 18(37.5%) with PGD, 18(31.5%) M.Sc/M.tech qualifications, while 2(4.2%) with PhD qualifications. The respondents with M.Sc/M.Tech qualifications have the highest percentage.

Professional discipline of respondents: The participants had varied Professional discipline. The majority 16(24%) had Project Manager, followed by 10(28%) with Civil Engineer, 10(16%) with Architect,10 (20%) with Quantity Surveyor and 4(12%) with Builder.

Academic Qualification: The study included participants with different Academic Qualification in construction projects. HND accounted for 16(24%) of the participants, B.Sc/B.Tech for 10(20%), PGD for 12(28%), M.Sc/M.Tech for 5(12%), and PhD for 7(8%).

Years of experience in the building construction industry: The participants years of experience in construction industry. Less than 5 years accounted for 10(32%) of the participants, 16-20 years for 11(16%), Above 20 years for 10(12%) and 11-15 years for 9(16%).

shows that Most of the respondents agreed that, Lack of Relevant Software **with 50%, Power** Supply with 47%, **followed by** Cost with 46%, Lack of Skill with 45%, Limited Access to the Internet with 43%.

Table 4.2.1 shows Challenges affecting social media usage on performance of construction project. Lack of Relevant Software **with 50; Power** Supply with 47; **followed by Cost** with 46; Lack of Skill with 45; Limited Access to the Internet with 43.

Table 4.2.2 shows Determine the benefits of using social media on performance of construction project. **Improved** communication, Increased efficiency, Improved safety **with 50; and Enhanced** project cost control with 45; **followed by Accurate** project planning and design with 40.

Table 4.2.3 shows Solutions to the Current Problem in using of social media among construction team in construction project. **Education** and Training, Demonstrate Benefits and Encouraging Worker Engagement and Empowerment with **50;** Promoting Effective Communication and Collaboration **with 45;** Technology Accessibility **with 43;** Industry Collaboration and Leveraging Technology for Quality and Safety with 40; **followed by** Research and Development and Encouraging Continuous Improvement and Lessons Learned with 41; then Government Support and Enhancing Safety Training and Education with 30.

Table 4.2.4 shows Impact of Media Technologies which are currently adopted in Building Construction Sites. **Building** Engineering Applications, Integration, Building Information Modeling (BIM) **with 50; and** Planning, Scheduling and Site Management with 46; **followed by Business** and Information Management with 45; then Computer Aided Design and Visualization and Computer Aided Cost Estimation with 40; Web-Based Technology with 30.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

This study sought to impact of social media usage on performance of construction project among Quantity surveyor in Nigeria, the result of this indicated that majority of the respondents where project engineer, due to the topic and in addition majority of the respondents were building contractors due to large volume of construction works during the survey period of this project. The findings of this study support the empirical findings of Eastman (2011) who affirmed that assess drawing defects is the first significant of social media usage on performance of construction project and also stressed that reducing cost and mitigated risk was ranked the second significant of social media usage on performance of construction project.

5.2 Recommendation

In view of the findings and conclusion of the study, the following recommendations are made for consideration for developers/ investors, the government and other relevant bodies to realize the importance of social media usage on performance of construction project in Nigeria

5.2.1 The recommendation deduced from the analysis are: -

1. Therefore, construction professionals (Architects, Quantity surveyors and Engineers) and all relevant stakeholders such as development control agencies and statutory authorities in the Nigerian Construction Industry must fully embrace and adopt social media into their practices and accept the new roles defined by web base technology. in their service delivery to ensure survival.
2. The public sectors in the country should spearhead the implementation process through funding, development of social media usage, standards that suits our practices, and legislations among others.

3. The barriers identified as impediments to successful adoption should be effectively overcome and implementation plans and strategies should be developed.
4. Government agencies should impose the use social media. on projects of certain magnitude (large projects) so that large contractors who have adequate resources and capacity take the lead for the implementation.
5. The study recommends that the government and key players in the construction industry need to adopt web base technology, 5D for effective budget estimation, monitoring and evaluations.
6. The study recommends that the ACE industry both from private and public institutions embraces social media web usage. 4D to allow them view the planned construction projects over time and review the planned versus actual status time schedules.
7. The study recommends use of building information modeling clash detection tool in order to minimize errors and discrepancies between the social media usage models and the actual construction.
8. NBTE, NUC and NIQS should pursue the course of entrenching these skills gap into the training curriculum, through the departments of Quantity Surveying in polytechnics and universities in Nigeria.
9. The curriculum for the various built environment programmes in Nigerian Universities should be revised to adequately capture social media usage. in the training of construction professionals and the respective professional bodies of these professionals should ensure continuous development of their members.
10. It is expected that NUC and NBTE should ensure that the curriculum of departments is reviewed in depth in line with organizational growing needs in other to ensure that

these needs are considered in training, so that unemployable graduates will not be produced.

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Questionnaire

Department of Surveying,

Institute of Environmental Studies,

Kwara State Polytechnic, Ilorin,

P.M.B 1375, Ilorin Kwara State

Dear Respondents,

TOPIC: IMPACT OF SOCIAL MEDIA USAGE ON PERFORMANCE OF CONSTRUCTION PROJECT

I am a final year student of the Department of Quantity Surveying, Kwara State Polytechnic Ilorin, conducting a research on the above topic as a requirement for the award of Higher National Diploma (HND) in Quantity Surveying.

I therefore solicit for your assistance to kindly fill the questionnaire presented as objectively as possible. Information provided shall be accorded its due confidentiality and used solely for the purpose of this research work.

Thanks for your unreserved assistance

Yours faithfully,

Olarenwaju Afeez Babatunde

HND/23/QTS/FT/0023

SECTION A

INFORMATION ABOUT RESPODENTS

Kindly tick (√) the best option as appropriately below;

1. Gender:

a) Male ( ) b) Female ( )

2. Age:

a) 18-25 b) 26-35 c) 36-45 d) 46 and above

3. Professional discipline of respondents

a) Quantity Surveyor ( ) b) Architect ( ) c) Civil Engineer ( ) d) Builder ( )

e) Project Manager ( ) f) Others (please specify): _____

4. Respondent's Academic Qualification

a) HND ( ) (b) B.Sc/B.Tech ( ) (c) PGD ( ) (d) M.Sc/M.Tech ( ) (e) Ph.D ( )

5. Working experience of respondents in the construction industry

a) 0-5 years ( ) (b) 6-10 years ( ) (c) 11-15 ( ) (d) 16-20 years ( ) (e) over 20 ( )

6. Have you ever been involved in reviving an abandoned public project

a) Supplier ( ) (b) Consulting Firms ( ) (c) Contracting Firms ( )

(d) Manufacturing firm ( )

SECTION B

DATA ON OBJECTIVES

Please tick [√] as appropriately using the following rating: Strongly agree (SA); Agree (A); Neutral (N); Strongly Disagree (SD); and Disagree (D)

1. What are the challenges affecting social media usage on performance of construction project?

S/N	Challenges affecting social media usage on performance of construction project.	SA	A	N	SD	D
1	Limited Access to the Internet					
2	Lack of Relevant Software					
3	Lack of Skill					
4	Cost					
5	Power Supply					

Please tick [√] as appropriately using the following rating: Strongly agree (SA); Agree (A); Neutral (N); Strongly Disagree (SD); and Disagree (D)

2. What are the benefits of using social media on performance of construction project?

S/N	Determine the benefits of using social media on performance of construction project	SA	A	N	SD	D
1	Improved communication					
2	Accurate project planning and design					
3	Increased efficiency					
4	Improved safety					
5	Enhanced project cost control					

Please tick [√] as appropriately using the following rating: Strongly agree (SA); Agree (A); Neutral (N); Strongly Disagree (SD); and Disagree (D)

3. What are the Current Problem in using of social media among construction team in construction project?

S/N	Solutions to the Current Problem in using of social media among construction team in construction project	SA	A	N	SD	D
1	Education and Training					
2	Government Support					
3	Industry Collaboration					
4	Demonstrate Benefits					
5	Technology Accessibility					
6	Research and Development					
7	Enhancing Safety Training and Education					
8	Leveraging Technology for Quality and Safety					
9	Encouraging Continuous Improvement and Lessons Learned					
10	Promoting Effective Communication and Collaboration					
11	Encouraging Worker Engagement and Empowerment					

Please tick [√] as appropriately using the following rating: Strongly agree (SA); Agree (A); Neutral (N); Strongly Disagree (SD); and Disagree (D)

4. What are impact of media technologies which are currently adopted in building construction sites?

S/N	Impact of Media Technologies which are currently adopted in Building Construction Sites	SA	A	N	SD	D
1	Building Information Modeling (BIM)					
2	Web-Based Technology					
3	Computer Aided Design and Visualization					
4	Building Engineering Applications					

5	Computer Aided Cost Estimation					
6	Project and Information Management					