

Behavioural Pattern and Efficiency of Middle-Skilled Construction Workers in Selected LGAs in Lagos State

**Mike Ademola OKE
LCU/PG/002294**

**Being a MSc Post-field Presentation Submitted to the Department of Management & Accounting, Faculty of Management & Social Sciences
Lead City University, Ibadan, Oyo State, Nigeria**

In Partial Fulfilment of the Requirements for the Award of Master of Science Degree (MSc) in Project Management

2023

Certification

This is to certify that this thesis was carried out by **Mike Ademola OKE** with Matriculation number **LCU/PG/002294**, in the Department of Management & Accounting under my thorough supervision in the Faculty of Management and Social Sciences, Lead City University, Ibadan Nigeria and that this work had not been previously submitted.

.....

Dr. J.O Olaleye

Supervisor

.....

Date

.....

Dr. T. M. Akinbo

Head of Department

.....

Date

Do Not Copy, Lead City University, Nigeria

Dedication

This thesis is dedicated to God Almighty.

Do Not Copy, Lead City University, Nigeria

Acknowledgement

I give all praise and adoration to God Almighty for guiding me through the course of study in this noble university, Lead City University, Ibadan. I wish to express my profound gratitude to Lead City University, Ibadan, Nigeria for the opportunity given me to undergo this degree. I appreciate the Vice-Chancellor of the University, Professor K.A. Adeyemo, Provost, Postgraduate Graduate College, Professor Oredein, the Registrar, Dr. Ayeni, Heads of Departments, Lecturers and other non-academic staff members of the University. The unquantifiable contribution of my supervisor, Dr. J. O. Olaleye, who created an enabling supervision environment towards the completion of this thesis, can never be ignored. He motivated me and helped by mentoring and coaching me throughout this entire process. My sincere gratitude is extended to Dr. T.M. Akinbo, (HOD, Department of Management & Accounting), Prof. G.E. Oyedokun, Dr. J.A. Adejuwon, Dr A.B. Onamusi, and Dr. F. Igbadumhe for their assistance. Dr. O. Ibikunle and Mr. Adewumi also contributed enormously to this study by giving me support and advice. I acknowledge the encouragement of the present Executive Director/CEO, Nigerian Institute for Oceanography and Marine Research, Victoria Island, Lagos, Professor Abiodun Sule, my Head of Department, Dr. Patience O. Obatola, the cooperation of all my colleagues and fellow students at the University, thank you all. Further, I say a big thank you to my wife, and my children for their support, understanding and encouragement.

“ Even though the above-mentioned institutions and persons have assisted in this research, I alone stand responsible for the errors, if any, found in this work”.

Abstract

The study set out to investigate behavioural pattern on efficiency of middle-skilled construction workers in selected LGAs in Lagos State. The study was hinged upon two theories namely the stakeholder's theory and the social contract theory. The study adopted the cross-sectional survey design. The population of this study consists of Sixty-Two Thousand Four Hundred and Six (62496) middle skilled construction workers in Lagos. The purposive sampling technique was used to select the respondents. A total of four hundred (400) respondents across five (5) local governments in Lagos namely Lagos Island, Lagos Mainland, Eti Osa, Surulere and Apapa took part in this study. The study made use of one instrument which was a self-developed questionnaire and each item is rated using 5 Point Likert Scale. The study found that there was a significant relationship between behavioural pattern and efficiency of middle skilled construction workers. The study found that behavioural patterns such as motivation, safety and work ethics contributed to the efficiency of middle skilled construction worker. However behavioural patterns like self-discipline, risk assessment and quality control had the least influence on the efficiency of middle skilled construction worker respectively. The study also found that there was a moderate relationship between team work and efficiency of middle skilled construction workers. The study found that not all the components of efficiency had a significant impact on team work. Feedback, cooperation, coordination of material, Manpower, daily schedule and Time management positively influenced team work of middle skilled construction workers in Lagos. It was discovered that integrated procurement and machinery did not affect team work of middle skilled construction workers. Finally, the study found that integrity has a significant influence on efficiency of middle skilled construction workers in Lagos state.

Keywords: Behavioural patterns, Efficiency, Middle-skilled construction workers

Word Count: 286

Table of Contents

Content	Page
Title Page	i
Certification	ii
Dedication	iii
Acknowledgement	iv
Table of Contents	v
Abstract	vi
List of Table(s)	vii
List of Figure(s)	viii
Chapter One: Introduction	
1.1 Background to the Study	1
1.2 Statement of the Problem	3
1.3 Aim and Objectives of the Study	5
1.4 Research Questions	5
1.5 Hypotheses	6
1.6 Significance of the Study	7
1.7 Scope of the Study	7
1.8 Limitation of the Study	9
1.9 Operational Definition of Terms	9
Endnotes	11
Chapter Two: Literature Review	
2.1 Conceptual Review	12
2.1.1 Concept of Ethics	12
2.1.2 Concept of Behavioural Pattern	19
2.1.3 Scope of Organisational Behaviour	24
2.1.4 Forms of Unethical Behaviour in the Organisation	25

2.1.5	How to Manage Unethical Behaviour in an Organisation	27
2.1.6	Importance of Strong Behavioural Pattern in Organisations	29
2.17	Strategies to Promote Behavioural Pattern	30
2.1.8	Professionalism as a Behavioural Pattern	32
2.1.9	Concept of Efficiency	37
2.2	Theoretical Framework	45
2.2.1	Stakeholder's Theory	45
2.2.2	Social Contract Theory	46
2.2.3	Time Management Theory	47
2.2.4	Social Learning Theory	48
2.3	Review of Empirical Studies	57
2.4	Conceptual Framework	58
2.5	Summary of Gap in Literature Reviewed	61
	Endnotes	63
 Chapter Three: Methodology		
3.1	Research Design	75
3.2	Population of the Study	75
3.3	Sample and Sampling Techniques	76
3.4	Description of Research Instrument	77
3.5	Reliability of Research Instrument	78
3.6	Validity of Research Instrument	79
3.7	Administration and Method of Data Collection	81
3.8	Method of Data Analysis	83
	Endnotes	84
 Chapter Four: Results and Discussion of Findings		
4.1	Demographic Data Analysis	85
4.2	Test of Hypotheses	95
4.3	Discussion of Findings	107

Endnotes	119
Chapter Five: Conclusion	
5.1 Summary of Findings	122
5.2 Conclusion	123
5.3 Recommendations	124
5.4 Contribution to Knowledge	124
5.5 Suggestion for Further Research	125
Bibliography	133
Appendix I: Questionnaire	139
Appendix II: Field Presentation	144
Appendix III: SPSS Output	145
Bio-data	160
The University Compliance Certification	163

Do Not Copy, Lead City University, Nigeria

List of Tables

Table	Title	Page
3.1.	Construction-Site workers in Lagos State	67
3.2	Reliability Statistic	76
3.3	Summary of Pilot Test Incorporating Construct Validity Test	78
3.4	Discriminant Validity Using Heterotrait-Monotrait Ratio	79
4.1	Descriptive Analysis of Responses on Behavioural Pattern	87
4.2	Descriptive Analysis of Responses on Efficiency	89
4.3	Summary of Regression Analysis for the effect of work ethics on efficiency	94
4.4	Summary of Regression Analysis for the effect of sense of responsibility on efficiency	96
4.5	Summary of Regression Analysis for the effect of self-discipline on efficiency	98
4.6	Summary of Regression Analysis for the effect of integrity on efficiency	100
4.7	Summary of Regression Analysis for the effect of Team work on efficiency	102
4.8	Summary of Regression Analysis for the effect of Behavioural pattern on efficiency	104

List of Figures

Figure	Title	Page
2.1	Conceptual Framework	77
4.1	Gender	83
4.2	Age	84
4.3	Educational Qualification	85
4.4	Work Experience	86

Do Not Copy, Lead City University, Nigeria

Chapter One

Introduction

1.1 Background to the Study

Performance in a job is strictly a behavior and a separate entity from the outcomes of a particular job which relate to success and productivity. Efficiency is often seen as a means to reach a goal or set of goals within a job, role, or organization, but not the actual consequences of the acts performed within a job. Efficiency relates to the act of doing a job. It was affirmed that efficiency is not a single action but rather a “complex activity. Purposeful actions in a proactive manner are required of contemporary institutions and organizations to achieve desired level of efficiency from workers with cognizance to the acceptable norms and best practices in the industry they belong to and country of operation.

The key features of efficiency are that it has to be goal relevant, performance must be directed toward organizational goals that are relevant to the job or role. Therefore, performance does not include activities where effort is expended toward achieving peripheral goals. For example, the effort put toward the goal of getting to work in the shortest amount of time is not performance (except where it is concerned with avoiding lateness)¹. Despite the emphasis on defining and predicting efficiency, it is not a single unified construct, and there are vastly many jobs each with different performance standard². Therefore, efficiency is conceptualized as a multidimensional construct consisting of more than one definition, many researchers an eight-factor model of performance was proposed based on factor analytic research that attempts to capture dimensions of efficiency existent to a greater or lesser extent across all jobs^{3,4}. Behavioral Pattern is an act of interacting with one another, which brings about team

work in any kind of organization or set up. Working together is no doubt the best office situation as no man can work in strict isolation to get all what he aimed to achieve as Behavioral Pattern is centered with people: which is as how one can work with another⁵. Organization needs a construction worker who is indispensable and vast in the aspect of Behavioral Pattern at work and for an construction worker to survive and be successful on the job, he or she has to be able to build and keep good relationship with his/her superiors, colleagues, subordinate and the general public relating to her in the course of his/her duty. Information in organization either originate or passes through the construction worker's desk for one purpose or the other, to achieve this; the construction worker should be able to build and keep good relationship that will make for every flow of work revolving round about her.

Behavioral Pattern is one of the most critical issues in business and in many organizations Management⁶. Good professional ethical culture in an organization will provide direction and guidance in various areas in order to build united, harmonious and ethical construction workers. However, there is no Behavioral Pattern guidance or standard that is absolute, appropriate and applicable to organization.

Those individuals and organizations that are not ready to follow their Behavioral Pattern often face the difficulty of meeting up with targets in a timely manner. Against this backdrop, lots of arguments have been raised on what sorts of professional work ethical behaviour is expected of construction workers in the world of work to keep to the expected efficiency. Research evidences have shown that strong professional work ethics contribute to good efficiency while poor or low performance result from weak or negligence of professional work ethics.

Behavioral Pattern facilitate construction workers' attitude towards hard work and their organization too⁷. To guarantee efficiency, construction site worker must have a high

sense of responsibility, integrity, discipline, quality, and sense of team work. Some argue that Behavioral Pattern are limited just to the job description and responsibilities. Others argue that, construction workers also have ethical responsibilities towards the organization by ensuring its continued survival.

1.2 Statement of the Problem

The interaction between behavioral patterns and the efficiency of middle-skilled construction workers in Lagos State, Nigeria presents a significant and complex problem. In the construction industry, the effectiveness and productivity of workers are not solely determined by technical skills and knowledge but are also greatly influenced by their behavioral patterns and work habits. The diverse cultural, social, and economic factors in Lagos State further complicate this relationship, making it crucial to understand how these behavioral patterns impact efficiency in the construction sector.

In this context, behavioral patterns encompass a wide range of factors, including work ethic, integrity, self-discipline, sense of responsibility, punctuality, teamwork, communication, motivation, and adaptability. The challenge is to identify how these behavioral traits can either enhance the overall efficiency of middle-skilled construction workers. For example, a lack of punctuality, poor sense of responsibility, or poor self-discipline can lead to project delays, increased costs, and reduced quality of work. On the other hand, a workforce with strong teamwork, effective communication, integrity and high sense of responsibility tends to contribute to successful and efficient construction projects. Understanding the specific interactions between these behavioral patterns and efficiency is essential for several reasons. First, it can lead to strategies and interventions that enhance the overall productivity of construction workers, which can have a substantial impact on the construction industry's growth and success in Lagos State. Second, it can help construction companies make informed decisions about hiring,

training, and managing their workforce to optimize their performance. Third, it can contribute to improving the overall quality of construction projects in the region, benefiting both the construction industry and the community as a whole.

However, addressing this problem requires comprehensive research, data collection, and analysis to identify the key behavioral patterns that influence efficiency in the context of Lagos State, taking into account cultural, social, and economic nuances. By gaining a deeper understanding of this interaction, stakeholders can work towards fostering a more productive and efficient middle-skilled construction workforce, ultimately contributing to the growth and development of the construction sector in Lagos State, Nigeria.

The efficiency of middle-skilled construction workers in Lagos State, Nigeria, is influenced by a complex interplay of various factors. One significant gap in our understanding of this interaction lies in the limited research on the specific behavioral patterns that impact their performance. While there is a growing body of knowledge on the technical aspects of construction work and the broader economic landscape in Lagos, there is a dearth of research that delves into the behavioral pattern, such as work ethic, integrity, self-discipline, sense of responsibility, and team work, which can significantly affect the efficiency of middle-skilled construction workers. This gap in knowledge is a critical area that warrants further investigation to enhance the overall productivity and effectiveness of this vital workforce in the construction industry of Lagos State. Hence, this study examined the effect of behavioural pattern on efficiency of middle-skilled construction workers in selected LGAs in Lagos State.

1.3 Aim and Objectives of the Study

The aim of this research work is to assess the effect of behavioral pattern (work ethics, sense of responsibility, discipline, & integrity) on efficiency of middle-skilled construction workers in selected LGAs in Lagos State. Specific objectives are to:

1. determine the effect of work ethics on efficiency of middle-skilled construction workers in selected LGAs in Lagos State.
2. Investigate the effect of sense of responsibility influence efficiency of middle-skilled construction workers in selected LGAs in Lagos State.
3. assess the effect of discipline influence efficiency of middle-skilled construction workers in selected LGAs in Lagos State.
4. evaluate the effect of integrity on efficiency of middle-skilled construction workers in selected LGAs in Lagos State.
5. examine the effect of team work influence efficiency of middle-skilled construction workers in selected LGAs in Lagos State.
- 6: analyze the effect of behavioural pattern on efficiency of middle-skilled construction workers in selected LGAs in Lagos State.

1.4 Research Questions

The following research questions were raised to guide this study.

1. What is the effect of work ethics on efficiency of middle-skilled construction workers in selected LGAs in Lagos State?
2. In what way does sense of responsibility influence efficiency of middle-skilled construction workers in selected LGAs in Lagos State?

3. How does discipline influence efficiency of middle-skilled construction workers in selected LGAs in Lagos State?
4. what is the effect of integrity on efficiency of middle-skilled construction workers in selected LGAs in Lagos State?
5. In what way does team work influence efficiency of middle-skilled construction workers in selected LGAs in Lagos State?
- 6: What is the effect of behavioural pattern on efficiency of middle-skilled construction workers in selected LGAs in Lagos State?

1.5 Hypotheses

The study examined the following null hypotheses.

- H₀₁:** Work ethic as no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State
- H₀₂:** Sense of responsibility as no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State.
- H₀₃:** Discipline has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State
- H₀₄:** Integrity has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State
- H₀₅:** Team work has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State
- H₀₆:** Behavioural pattern has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State

1.6 Significance of the Study

The findings of this study is relevant to construction workers as well as stakeholders such as site managers, industry practitioners and construction workers of public institutions concerning the essence of Behavioral Pattern in critical efficiency, including management. Theoretically, the study findings augment the body of knowledge by contributing to the literature on the significance of ethical practices on efficiency. Additionally, the study also boosts the activities of construction worker through emphasizing on the significance of Behavioral Pattern on efficiency. In policy making, the findings inform policy makers on the adoption of professional ethical practices in an effort to enhance effective efficiency.

This research will also be of significant benefit to students and future researchers who want to go deep in this study, also the study will assist the society in ensuring ethical standards in all areas of construction.

1.7 Scope of the Study

Content Scope

The content scope of this research is to examine Behavioral Pattern and the Efficiency of Construction worker in Selected LGAs in Lagos State. The following constructs were developed:

Dependent construct – Efficiency of Construction worker

Independent construct – Behavioral Pattern

The above is mathematically expressed as $Y = f(x)$

Where:

Y = dependent variable

X = independent variable

Y = Efficiency of Construction worker

X = Behavioral Pattern

Therefore, from this equation, Efficiency (Ef) would depend on Behavioral Pattern (BP).

This is expressed as:

Efficiency = f (Behavioral Pattern)

That is $E_f = f(BP)$

Where $E_f = Y$ and $BP = X$

The X and Y are broken down as follows:

Where, $X = (x_1, x_2, x_3)$

$X = BP$

$X_1 = \text{Behavioral Pattern}$

$X_2 = \text{Timing}$

$X_3 = \text{Integrity}$

Similarly,

Y = Efficiency of Construction worker

Geographical Scope

The geographical scope used in this research is the selected LGAs in Lagos State.

1.8 Limitation of the Study

In spite of the useful findings of this study, this empirical study has some limitations that must be mentioned. Firstly, the findings cannot be generalized to the overall construction workers who are working in the construction-site system, as the scope of study will also not be limited to site managers in the construction-site system alone. Secondly, the study design was restricted to one particular group of construction workers (construction worker only). Thirdly, it is difficult to get true responses, which are related or most accurate to the character or attitude of a respondent. The findings in this study depend on the honesty of the respondents in answering the questionnaire truly. The tendency to agree more on socially desirable answers rather than fully and truly express their opinion will result in false data to be accepted as result.

1.9 Operational Definitions of Terms

Behavioral Pattern: Behavioral Pattern are the feelings we have towards different aspect of the work environment. It can be positive or negative.

Construction Site: A site is generally a space or other area where construction workers perform construction work in order to support and realize the objectives and goals of the organization.

Ethics: The moral principles that governs a person's behaviour or the conduct of an activity. It is the principle guiding right and wrong.

Integrity: This refers to the practice of been honest and showing a consistent and uncompromising adherence to strong moral and ethical principles and values.

Organization: An organization is an entity comprising multiple people, such as an institution or an association that has a particular purpose.

Teamwork: Teamwork is said to be the willingness of a group of people to work together in order to achieve a common goal.

Do Not Copy, Lead City University, Nigeria

Endnotes

1. H., Aguinis, I., Villamor, & P.G., Kelly. *"Understanding employee responses to COVID-19: A behavioral corporate social responsibility perspective."* **Management Research: Journal of the Iberoamerican Academy of Management** 18, no. 4, 2020: 421-438.
2. B., B.Saeed, B., Afsar, S., Hafeez, I., Khan, M., Tahir, & A.A., Muhammad. *"Promoting employee's proenvironmental behavior through green human resource management practices."* **Corporate Social Responsibility and Environmental Management**, 26, no. 2, 2019: 424-438.
3. R., Chaudhary. *"Green human resource management and employee green behavior: an empirical analysis."* **Corporate Social Responsibility and Environmental Management** 27, no. 2, 2020: 630-641.
4. J.Y., Yong, Y., Mohd Yusoff, T., Ramayah, S., Sehnem, & V., Mani. *"Pathways towards sustainability in manufacturing organizations: Empirical evidence on the role of green human resource management."* **Business Strategy and the Environment**, 29, no. 1, 2020: 212-228.
5. S., Roscoe, N., Subramanian, J., Charbel JC, & T., Chong. *"Green human resource management and the enablers of green organisational culture: Enhancing a firm's environmental performance for sustainable development."* **Business Strategy and the Environment** 28, no. 5 (2019): 737-749.
6. O.M., Ababneh. *"How do green HRM practices affect employees' green behaviors? The role of employee engagement and personality attributes."* **Journal of Environmental Planning and Management** 64, no. 7, 2021: 1204-1226.
7. M., Kim, A., Chan Hyung Kim, J.I., Newman, G.R. Ferris, & P.L., Perrewé. *"The antecedents and consequences of positive organizational behavior: The role of psychological capital for promoting employee well-being in sport organizations."* **Sport Management Review** 22, no. 1, 2019: 108-125.
8. A., Revyathi, & N., Tselios. *"Extension of technology acceptance model by using system usability scale to assess behavioral intention to use e-learning."* **Education and Information technologies** 24, 2019: 2341-2355.
9. A., Capizzi, J., Woo, & M., Verduzco-Gutierrez. *"Traumatic brain injury: an overview of epidemiology, pathophysiology, and medical management."* **Medical Clinics** 104, no. 2, 2020: 213-238.
10. T., Yao, Q., Qiu, & Y., Wei. *"Retaining hotel employees as internal customers: Effect of organizational commitment on attitudinal and behavioral loyalty of employees."* **International Journal of Hospitality Management** 76, 2019: 1-8.

Chapter Two

Literature Review

This chapter will be a review of existing literatures by other researchers which are relevant to the area of the research being conducted. The chapter will embody the conceptual framework which includes definitions, concepts, and terminologies related to the research study, the theoretical framework which includes a review of various theories related to this research, the empirical framework which will be made up of the conclusions drawn by researchers in the area of interest concerning this research study, the conceptual framework which include the model specification and the summary of gaps in literature. The chapter will cover the following headings;

2.1. Conceptual Review

2.2. Theoretical Framework

2.3. Review of Empirical Studies

2.4. Conceptual Framework

2.5. Summary of gap in Literature Reviewed

2.1.1 Concept of Ethics

The words "ethics" have respective Latin and Greek roots. It traditionally refers to insights into what constitutes human perfection and flourishing as well as accepted ideals and norms of behaviour (as in "cultural ethos" and "social mores"). We typically use the terms "ethics" and "morality" interchangeably today. However, the term "ethics" can also apply to moral philosophy, which is the field that examines the rationale behind and significance of moral convictions.

The phrase "ethics in efficiency" has become more popular among management experts and corporate executives worldwide. Simply said, ethics is the study of how actions

influence other people and organisations. Aspects of axiology that deal with what is right and beautiful as well as desired or preferred human behaviour include ethics and morality. Modern ethical standards or norms that guide how people interact with one another and their institutions are of interest¹. In order to guide the behaviour of the organisation and its construction employees in all of their business operations, both internally and in connection to the outside world, ethics was defined as a set of moral principles or ideals employed by organisations. Being ethical is viewed as a component of an organization's social responsibility, which is dependent on the idea that businesses should have an influence on society beyond the typical profit-maximizing goal². The ethical workplace culture can occasionally affect an organization's performance. The moral thinking of all organisation members is reflected in the work environment's ethical culture. Therefore, a strong ethical environment gives construction employees a basis for reflecting on moral concerns³.

A society's moral standards, cultural ideas, and definitions of what is good or wrong are all related to ethics. Though legal, something might be immoral. Ethics, according to author Mary Guy, is the conduct that is appropriate under the circumstances³. Honesty, integrity, fairness, and care for others were the four cornerstones of ethical behaviour. Aiming for two or three out of four is not a smart idea. For instance, if a person doesn't care for their employees, they can still be honest, have integrity, and treat people fairly. It is simple to act morally while business is booming. High ethical ideals become more difficult to uphold in difficult circumstances. We frequently encounter moral conundrums. To ensure that ethics are upheld at all times, organisations today have ethical codes of conduct, which are said to have been developed by 90% or more of all organisations⁴.

Everyone stands to gain much from the management of ethics in the workplace, both morally and practically. This is especially true today, when it's crucial to comprehend and

manage a wide range of beliefs in the workplace and when too many individuals still believe that business ethics is a philosophical subject or that it involves humiliating and criticising others⁴.

The field of business ethics has traditionally been the domain of philosophers, academics and social critics³. The management of ethics in the workplace will benefit everyone much, both ethically and practically. This is particularly true today, when it's important to understand and handle a wide range of opinions in the workplace and when too many people continue to think that business ethics is a philosophical topic or that it entails degrading and disparaging others³:

- a) Philosophical, which requires extensive orientation and analysis;
- b) Anthologies, which require much time, review and integration;
- c) Case studies, which require numerous cases, and much time and analyses to synthesize;
- and d) Extended stories about businesses "gone bad"

2.1.1.1 Importance of Ethic in an Organisation

Good Ethics is a fundamental requirement of any profession. It is integral to the success of the organization as well⁴. Ethics is a set of moral rules that dictates what is suitable behaviour for an individual or a community of people. Being continually consistent with the rules of right moral behaviour is maintaining excellent ethics. excellent ethics are excellent business since they not only help a company succeed but also open up numerous opportunities for growth and development by giving a positive view of the company to the public. An organisation works tirelessly to achieve its objectives while helping the construction employees develop their high levels of competency. In this regard, the construction employees' devotion to high ethical standards can significantly contribute to the outstanding accomplishment of company goals being realised as planned and intended. Ethics is the technique of judging what is good and wrong in human behaviour⁵. It's

possible that a variety of factors influence someone's decision to act unethically, but the right person is the one who, in the face of moral conundrums, evaluates the circumstances and distinguishes between what is morally right and wrong in order to adhere to the laws and codes of professional conduct⁶.

It is crucial to note that, in addition to the common kinds of business ethics that have been recognised, ethics also serves other purposes in company, some of which include retaining good personnel, creating a nice workplace atmosphere, and avoiding legal issues. Explicitly stating this significance⁸.

1. **Customer Loyalty:** Consumers could allow a business to take advantage of them once, but if they feel they have received unfair treatment, such as being overcharged, they won't come back. One of the keys to long-term business success is having a loyal client base since serving a current customer doesn't require marketing costs, unlike gaining new ones. A company's reputation for moral conduct can aid it in developing a more positive brand in the marketplace, which can attract new clients via word-of-mouth recommendations. In contrast, a reputation for unethical behaviour harms a business's ability to attract new clients, particularly in this day of social networking when unhappy clients may easily spread the word about the bad experience they had⁸.
2. **Retain Good Employees:** Talented people want to be adequately paid for their hard work and devotion at all levels of an organisation. They desire that their professional development inside the company be determined by the calibre of the job they provide rather than by favouritism. When layoffs or reorganisations are being considered, for example, they want to be a member of an organisation whose management team is honest with them about what is happening. The most skilled individuals are more likely to stay with companies that treat them fairly and honestly. Employees who do not feel that the

system for determining their salary is fair are frequently not as devoted to their work as they may be.

3. **Positive Work Environment:** At all levels of an organisation, talented individuals want to be fairly compensated for their dedication and hard work. They want their advancement inside the organisation to be based more on the calibre of the work they do than on favouritism. For instance, people want to be a part of a company whose management team is open with them about what is occurring when layoffs or reorganisations are being contemplated. Employees with the highest skill levels are more likely to remain with organisations that treat them fairly and honestly. It's common for workers who don't believe the method used to determine their pay is fair to be less committed to their jobs than they otherwise would be.
4. **Avoid Legal Problems:** The management of a firm may occasionally feel pressured to make financial concessions, such as not completely adhering to environmental or labour rules, neglecting risks to worker safety, or utilising inferior materials in their goods. Legal expenses, fines, and/or punishments by governmental organisations are only a few of the serious consequences of getting detected. Even more expensive than the court costs or penalties might be the long-term harm to the company's reputation that results from the negative press. Businesses that uphold the highest ethical standards invest the time to educate every employee on the behaviour that is required of them.

2.1.1.2 Ethical Principles

Ethical standards, which are what the general public would consider to be right. Making such a divide prevents construction workers from behaving in accordance with internal moral standards without first considering how such standards would stand up to public scrutiny⁵. Additionally, it has added pressure on how construction employees live their personal lives. Instead of being viewed as a position to be obtained, ethics must be

considered as an ongoing action. Ethics are a management approach that supports governmental activity and goes beyond just setting a set of regulations or a code of conduct⁷.

Ethical principles are broad declarations of what is right or wrong in behaviour. These principles frequently serve as the foundation for a person's behaviour, ideas, and beliefs⁵. Some ethical standards are commonly said to as universal, which implies that logically minded intelligent individuals would have to concur that everyone should adhere to them. The golden rule, a well-known global ethical precept, states that individuals should treat others in the same manner as they would like to be treated themselves. Other common ethical principles include the following⁴. The rights of others should be respected, promises should be kept, people should be trustworthy, they should own up to their mistakes, people should behave in the interests of others, people should assist those in need when they can, and people should be fair. It is crucial to note that when these moral guidelines are followed, there is a possibility that it starts to influence the behaviour of the personnel at such a company.

2.1.1.3 Ethical Behaviours and Workplace Ethics

Ethical behavior is that which is morally accepted as “good” and “right” as opposed to “bad” or wrong in a particular setting³. Consider issues like: Is it moral to conduct personal business during work hours? Is it moral to offer a bribe in exchange for a commercial contract? Regardless of one's initial inclination in response to these questions, it is obvious that the main purpose of it all is to remind organisations that the general public expects that government officials, managers, employees in general, and the organisations respect all act according to high ethical and moral standards. Maintaining

high standards of ethical conduct in organisational transactions and in the workplace will become a new problem in the future³.

Workplace ethics and behaviour are essential components of employment since they may both help a business be successful⁴. In reality, since strong morale and cooperation are two essential elements for success, ethics and behaviour are equally crucial to most businesses as performance. Every company in every field has rules that its employees are expected to follow. These rules are typically outlined in employee handbooks.

Although the ethical code differs from organisation to organisation, its overall message or substance is always focused on increasing organisational and operational efficiency⁴. In actuality, ethics and conduct are just as important to most firms as performance since high morale and teamwork are two critical components for success. Every business in every industry has regulations that its staff members are required to abide by. Employee handbooks generally provide descriptions of these regulations.

Increasing organisational and operational efficiency is always the objective of the ethical code, even if it varies from organisation to organisation⁴. Some people even list acceptable behaviour in job descriptions or during the interview process. Generally speaking, behaviour standards cover things like language, work attire, and harassment. Employees who violate rules of behaviour risk verbal and written warnings as well as termination. Integrity, or always being honest and acting morally, is a crucial aspect of professional ethics and behaviour. For instance, just as individuals who handle and work primarily with money must have a high level of integrity, healthcare workers who care for patients who are mentally or physically challenged also need to. Integrity in the workplace also means staying away from slander and deceit.

Another important aspect of workplace ethics and conduct is accepting responsibility for one's actions⁴. That entails appearing on designated workdays, showing up promptly, and giving your best effort while doing your duties. When anything goes wrong, accountable employees are forthright and then seek to find a solution while maintaining a professional demeanour. Working effectively with people in the job is essential. That covers everyone, from coworkers to managers to clients. Even if not every employee will get along, for the sake of a greater objective, they must put aside any personal or even professional conflicts. People who aren't viewed as "team players" sometimes risk being demoted or even fired. On the other hand, those who work well with others often can advance on that aspect alone, with teamwork sometimes even outweighing performance.

Ethical and behavioral guidelines in the workplace often place a high amount of importance on dedication⁴. Even while having the required abilities is crucial, having a strong work ethic and a pleasant attitude on the job may go a long way. Additionally, since commitment is sometimes seen as contagious in the corporate environment, individuals who put up a great effort frequently motivate their coworkers to do the same.

2.1.2 Concept of Behavioral Pattern

Behaviour is defined as any detectable overt activity of the organism, which often includes both verbal and physical actions⁸. This concept describes behaviour as primarily perceptible bodily action, such as a pigeon pecking a disc, a woman saying "hello," a student raising his hand, and so on⁹. Therefore, it is essential to note that if a movement is repeated, a pattern is likely to develop. Since behaviour patterns are the ethologists' preferred unit of exchange, it is crucial to understand what they are and how they are characterised⁸. It is customary to identify the natural segments that are instances of the same fundamental phenomenon (the behaviour patterns) and then describe the common

characteristics of those patterns. The behaviour of any creature is a complicated system of occurrences. Physical topography, orientation, position, intrinsic qualities, and physical consequences are among the five domains that make up each pattern. Each pattern is a series of occurrences distinguished by identity or resemblance in one or more of these domains. Behaviour is never fully described; the observer may use a number of recording and reporting techniques (such as language, photography, and sound recording), but they all result in some information being lost or rejected¹⁰. Statements about the process of change in position, shape, physiological property, etc. of one or more parts of an organism, or about the results of such processes, may be included in a behaviour pattern. These latter-type statements may even be found in descriptions that do not mention the environment⁸.

The capacity for behavioural development is a crucial quality of the human race and of society. Rules, norms, codes, or principles that offer direction for ethically right behaviour in managerial decisions pertaining to the running of the company and the interaction of the firm with society are known as behavioural patterns¹¹. Business professionals may utilise behavioural patterns as a set of rules to help them make the right decisions. The personal and organisational guidelines that control behaviour within the boundaries of a certain profession are known as behavioural patterns. Over time, behavioural patterns have changed due to an increasing desire to limit managers' involvement in the administration of the organisation¹². This also shows that nearly all highly performance firms have at the core a well-established set of shared values, particularly ethical values.

Organisational behaviour is a crucial phrase that has come to represent the evolution of behavioural patterns inside an enterprise. Behaviour at work is a crucial component needed for every firm to operate well. It is crucial to note that organisational behaviour

must exist prior to the development of behavioural patterns inside an organisation. Understanding, predicting, and managing human behaviour that takes place inside an organisation, whether it be individually or in a group, can be referred to as organisational behaviour¹³. Understanding other people's behaviour and helping them to understand ours is crucial while working in a group. We must adapt to the environment and comprehend the objectives we must attain in order to preserve a healthy work environment¹⁴. If we comprehend the significance of organisational conduct, this is a simple task. The following examples highlight the significance of organisational behaviour¹⁴.

1. It aids in elucidating the interpersonal connections that workers have with one another as well as with their superiors and inferiors.
2. Individual behaviour may be predicted and explained.
3. By maintaining excellent communication, it maintains the amicable connection inside an organisation.
4. It aids in promotion.
5. Motivating employees under their management is beneficial.
6. The organisation can make any transition simpler.
7. It assists in anticipating human behaviour and using it to further organisational objectives.
8. It contributes to the organization's increased effectiveness.

It is sufficient to say that researching organisational behaviour aids in identifying human behaviour patterns and, in turn, sheds insight on how these patterns significantly affect an organization's performance.

It is critical to note that the nature of the organisation and the character of people serve as the foundation for the idea of organisational behaviour. Simply said, a person's nature is their fundamental characteristics, or the personality that best describes them; they might

be similar or different. Speaking organizationally, certain key elements influencing people's nature have been highlighted^{8,14}.

1. Individual Difference: Instead of using a statistical method, which involves avoiding using a single rule, managers should take a personalised approach to each employee.

2. Perception: This is the capacity to listen, observe, and draw conclusions. It involves trusting our senses. In a nutshell, perception is how we perceive the world and form opinions.

3. A complete being: We must engage the full person since, as we are all aware, a person's ability or brain cannot be used in isolation. Background and knowledge are the foundation of skill. Just as physical and mental situations cannot be entirely divorced from one another, neither can our personal and professional lives. So, people function is the functioning of a total human being not a specific feature of human being.

4. Motivated behaviour: This is behaviour that has been ingrained or brought about by some form of incentive from a person, group, or even a circumstance. There are two main categories of motivated workers in an organisation:

a. Positive motivation: Enticing people with promotions or other rewards to modify their behaviour or finish a task. As an illustration, "If you complete this, you will gain this."

b. Negative motivation: Threatening or coercing others into changing their behaviour or face dire repercussions. For instance, "If you don't finish this, you will lose your job."

5. Value of the person: Employees desire chances that will allow them to grow personally as well as opportunities to be respected and acknowledged for their talents and abilities.

On the other side, the organization's nature reveals the business's goals. It's the chances it offers on the world market. It also establishes the expectations of the workforce; in other words, it establishes the essence of the business by serving as a mirror image of the

business. With its social structure, shared interests, and work ethics, each company's essence may be understood. Let us take a quick look at all these factors^{3, 8}.

1. Social system: Every organisation interacts with other businesses, its clients, or just the outside world through its workers, each of whom has certain social roles and statuses. Their collective and individual desires are the key factors influencing their behaviour. There are two categories of social systems:
 2. Formal: Groups created by employees in an organisation or members of the same club are regarded as formal social systems. An example might be a celebration after receiving a project.
 3. Informal: A gathering of friends, people mingling freely, having fun, partying, or just hanging out. Example, A birthday celebration.
5. Mutual interest: In order to exist and grow, both people and organisations depend on one another. In essence, it's a mutual understanding between the company and the personnel that aids in both parties achieving their goals.
6. Ethics: These are a person's, a group's, or an organization's moral standards. It is important to treat people ethically and establish certain moral standards in order to recruit and retain valuable staff. Companies are really now creating codes of ethics teaching and rewarding exemplary ethical behaviour.

2.1.2.1 Factors of Organisational Behaviour

Three main variables significantly impact organisational behaviour. All three elements are based on the workplace, which is why they are often referred to as the determinants of organisational behaviour. The three factors are: individuals, structures, and technology⁸. These three components have been discovered to be crucial in the formation of organisational behaviour; nevertheless, there is another determining factor, namely environment, that is required for the three previously stated factors to become possible.

1. **People:** An organisation is made up of individuals with a variety of characteristics, personalities, abilities, interests, backgrounds, beliefs, and intellect. All workers should be treated fairly and evaluated based on their performance and other factors that have an impact on the company in order to maintain a healthy workplace.
2. **Structure:** An organization's structure is determined by its design layout. It involves building and arranging connections and methods in accordance with organisational objectives.
3. **Technology:** Technology is the application of scientific knowledge to real-world applications. Additionally, it gives employees the resources they need to do their jobs and tasks in the best way possible.
4. **Environment:** Every business operates in a certain internal and external environment. The environments, causes, and components that affect an organization's operations, decisions, and particularly the behaviour of its personnel are referred to as the internal environment. While the external environment is characterised as external elements that have an impact on the operation of the organisation. Some of these might be influenced by the firm's marketing, while others need for modifications from the company. Employee morale, cultural shifts, and financial concerns are a few instances of the internal environment. Political variables, economic shifts, and the firm itself are examples of the external environment.

2.1.3 Scope of Organisational Behaviour

The extent to which organisational behaviour may direct or have an impact on an organization's daily activities is referred to as its scope in a very wide sense. The following three concepts are included into the definition of organisational behaviour: Behaviour on an individual, interpersonal behaviour, and collective behaviour⁸.

Individual Behaviour: This field of research examines a person's personality, knowledge, attitudes, drive, and level of work satisfaction. In this research, we engage in interactions with individuals to learn more about them and form opinions about them.

Inter-individual Behaviour: This field of research examines how individuals interact with one another and with their subordinates, as well as how they perceive power, politics, and group dynamics.

Group Behaviour: Group behaviour researches how organisations are formed, how they are structured, and how efficient they are. Group behaviour refers to collective actions taken to fulfil an organization's objective. In a nutshell, it refers to how a group acts.

An organisation is on the verge of generating behavioural patterns that will become synonymous with its brand and identity when it is able to generate a very strong organisational behaviour. As has been established, behavioural patterns are generally acknowledged norms of ethical conduct in both personal and professional life. It is crucial to note that behavioural patterns are not something that an organisation begins with; rather, they emerge through time as a result of ongoing planning, purposeful action, tactics, instruction, and guiding principles. This translates into a situation where an attempt is made consciously to help employees adopt the proper behavioural pattern. Professional organisations have adopted codes of conduct to assist members in carrying out their duties¹⁵.

2.1.4 Forms of Unethical Behavior in the Organization

There are countless opportunities for people and organisations to act unethically. Sadly, the promise is all too often realised. For instance, businesses that discharge hazardous medical and oil waste into our rivers and seas seem to choose their own interests over the health and safety of the general population¹⁵.

It is humiliating when an organisation engages in unethical business practises. It is simple to categorise as unethical behaviours the disposal of chemical waste into contaminated rivers, bribery and corruption in various sectors of the business, sexual harassment and falsified results, and examination misconduct on college campuses. Nevertheless, many organisations engage in these and other unethical behaviours on a regular basis. What causes this? In other words, what causes individuals in numerous organisations to act unethically? The assumption that organisations frequently promote activities that breach ethical norms provides one explanation for why people consciously engage in unethical activity. Think about how many company leaders, for instance, are still expected to engage in bribes and payoffs despite the bad press, the uncertainty of some laws, and the potential consequences of their behaviour.

Describe how organisations frequently adopt organisational practises that are at odds with accepted ethical norms and produce counter-norms. However, being far more secretive and dishonest is frequently thought to be not just acceptable but desired within organisations. It's very typical to stonewall while knowingly concealing essential facts. One explanation for this is that organisations may penalise people who are very forthright and honest. Other construction employees who are in a position to disclose unethical behaviour would undoubtedly leave in light of the adverse treatment suffered by many workers who are prepared to blow the whistle and expose unethical behaviour¹⁵. There are numerous organisational counter norms that support moral and ethical behaviour, and the fact that these behaviours are frequently rewarded and accepted raises the possibility that organisations may be functioning in a society with its own set of established standards. This argument proposes a different response to the query of why organisations deliberately engage in immoral behaviour. This is the case because there are management ideals that compromise honesty. According to a recent examination of executive integrity,

managers have developed certain habits of thinking that encourage unethical behaviour, even if they may not be aware of them¹⁵.

2.1.5 How to Manage Unethical Behavior in an Organization

The management of unethical act in the work place is to ensure a workable system that will promote ethical conduct in order to ensure business continuity, survival and good corporate image. Some of the measures are as discussed below¹⁵.

Ethical Climate

An organization's or unit's overall perception of its ethical rules, practises, and processes is referred to as the "ethical climate." In today's workplace, it is the duty of all parties involved to promote an ethical environment. When the environment is moral, most individuals tend to operate in accordance with the norm without raising any issues¹⁶.

Ethics Socialization and Training

Organisations must immediately unfreeze the natural behaviour of new construction employees at the time of entry and instill the company's accepted standards and values. One approach to do this is by ethic socialisation and training, which will assist construction employees in understanding what constitutes the organization's ethical behaviour¹⁶.

Formal Code of Ethics

This is the official document outlining how each employee is to act in circumstances that might lead to ethical quandaries. The code aims to guarantee that each employee behaves in a way that is compatible with the long-standing and widespread standards of the workplace. Additionally, businesses may designate staff members to act as "ethical advisers" or establish a unit to handle such situations¹⁶.

Leadership

Numerous studies supported the requirement for moral leadership as a means of controlling unethical behaviour in organisations. The promotion of normatively suitable behaviour to followers through two-way communication, reinforcement, and decision-making is another definition of ethical leadership as "the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships"¹⁷. Since it has been established that there is a link between ethical leadership and the behaviour of construction site workers, ethical leadership must be provided in order to ensure solid ethical practises in organisations. The behavioural patterns of their subordinates can be shaped by top bosses. They have the primary duty for wielding their influence in a way that deters unethical activity. Their daily behaviour must be the pinnacle of excellent moral character.

Laws and Regulation

By establishing rules in the form of laws and regulations for ethical conduct and ensuring their application, labour unions, employers, and the government may all help regulate the unethical behaviour of specific employees. But every aspect of workplace conduct must be addressed; otherwise, it may result in onerous legal procedures that become mired in conflicting legal interpretations and murky grey areas¹⁷.

Openness

Every person must encourage transparency in business practises to ensure ethical behaviour. An open culture that can prevent unethical behaviour from the top down should be encouraged by management. In this setting, moral concerns are frequently brought up and resolved before they become overwhelming¹⁷.

Stakeholder Priorities

Every stakeholder is increasingly driven to uphold higher ethical standards because their most significant stakeholders demand it of them. Because of the numerous interconnected commercial advantages that may be obtained from higher consumer/customer happiness, it is important to comprehend what triggers unethical behaviour. Investors, particularly institutional investors, regulators, academics, and the media are among other stakeholders¹⁷.

Whistle Blower Protection

A whistleblower is someone who brings attention to other people's wrongdoings inside an organisation in an effort to uphold moral standards and prevent wasteful, destructive, or unlawful behaviour. Whistle blowers do run the danger of having their career growth impeded and may have various types of workplace conflict, but there are hints that the courts are beginning to assist them more since they still have appropriate legal protection¹⁷.

2.1.6 Importance of Strong Behavioral Pattern in Organizations

Adapting to Changing Conditions

Work is not done in a vacuum; rather, it is done in a volatile environment. It is possible for workplace conditions to change so quickly that achieving the goal of the task becomes challenging. A thorough set of "work ethics" will undoubtedly help employees anticipate, keep track of, and react to shifting circumstances¹⁸.

Coping with work complexity

Work redesign may have increased the work function, which might result in subpar performance. The code of conduct might help in doing the task effectively in order to meet and surpass work expectations¹⁸.

Minimizing Costs

The use of behavioural patterns can cut down on work-related time waste and costs. A well-informed action will combat all losses and wastages, whether they are short-term or long-term¹⁸.

Minimizing the Errors

There are no tiny mistakes at work since they will compound and cause major issues that will ultimately reduce productivity. A well-guided behaviour will foresee faults and take action to prevent them¹⁸.

Keeping to Genuine Performance

Behavioural patterns enable employees to carry out their jobs in a more targeted and logical manner without bias or favour. Consequently, avoiding shady or unethical behaviour that, while it can improve performance in the near term, is avoided to maintain the company's reputation¹⁸.

2.1.7 Strategies to Promote Behavioral Pattern

Improving the ethical climate of an organization enhances and preserves its reputation, inspires loyalty and advertises that it has ethics message right and analyses the strategies to promote ethical behavior to include the following ¹⁹.

1. Evaluating Ethical Behaviour: Organisations should regularly conduct internal ethics audits since they would benefit much from doing so. From the top of an organisation down to the entry level roles, behavioural norms must be communicated and modelled. By doing this, it is ensured that the behaviour of construction employees and ethical norms are consistent. It is possible to successfully encourage adherence to an organization's ethical behavioural norms by routinely assessing these standards and the leadership's actions.

2. Educating construction employees: Educating construction workers on ethical principles on a regular basis will help an organization's ethical behaviour since it will provide them insight into the sort of conduct that is required of them. Through seminars, conferences, or recurring training, this can be accomplished.

3. Protecting construction employees: One issue that may develop in the promotion of ethical guidelines is the worry that some construction workers may have about their responsibility to report unethical or dubious behaviour by another worker on the job site or even a superior. employees on construction sites need to be confident they won't face reprisals from other employees or supervisors who may be reported for engaging in dubious activities. Offering construction employees a private route via which they may report inappropriate behaviour is the best approach to provide this assurance. One strategy to boost the willingness of construction site workers to speak up is to establish an organisation ethics hotline. Another option is a suggestion box that is maintained in a safe place where other construction workers are unlikely to notice someone handing them in. Construction employees need to feel secure knowing that reporting inappropriate behaviour is both safe and expected. Top managers should view themselves as role models, be motivated, and understand that the only way to regulate ethical behaviour is to avoid ethical conflicts.

1. Organisations should make an effort to recognise construction employees for their acts that adhere to the standards of conduct that members have set for their workforce. Construction employees who do not adhere to these requirements, however, should be penalised or sanctioned. There are a number of benefits to developing ethical standards, including the following:
 2. It enables construction employees to learn about the ethical standards upheld by their employer.

3. A code of ethics can be a more desirable internal control on behaviour than external controls like laws and regulations.
4. A written code makes it easier for construction employees to make ethical judgements without being confused.
5. The process of creating the code of ethics encourages dialogue about right and wrong among construction employees, which leads to better judgements¹⁶.

2.1.8 Professionalism as a Behavioural Pattern

Professionalism is the behaviour, goals, or traits that define or distinguish a profession or a professional individual; it suggests high standards of work or services²⁰. Every organisation strives to retain its most professional employees because they are aware that a professional reputation may be the difference between success and failure. Success and influence are key components of professionalism; having a reputation for excellence and being perceived as someone who acts professionally at all times may help one advance their career or personal goals.

The following 10 principles will help a company embrace professionalism: excellence, trustworthiness, politeness and respect, honesty, competence, ethical behaviour, respect for secrecy, and setting excellent examples²⁰.

A professional must uphold the values of professionalism in all of his professional interactions²⁰. Despite the fact that many guiding concepts are a component of what is considered appropriate and expected behaviour across many business sectors, the following are the general principles of professionalism²¹. Accountability, competence, integrity, secrecy, honesty, loyalty, faithfulness, trustworthy, courteous communication, responsibility, working without supervision, cooperating, flexibility, and bribery are some of these rules. These rules have been created to assist the organization's managers and workers in upholding professional conduct at work²¹.

Accountability: One prevalent idea of professionalism is responsibility. This entails assuming the responsibilities associated with your job as well as the blame when things go wrong²¹. Professionals are held accountable for their conduct and output. They are accountable for fulfilling their jobs and obligations. They correctly and promptly carry out their jobs. They are self-starters if, as is occasionally the case with professionals, they take ownership of their mistakes, failures, or errors and hold themselves accountable. They do not deflect responsibility, make excuses, or obsess about their mistakes²⁰. They own their errors, take the appropriate action afterward, and advance.

Appearance: Building a reputation for professionalism and adhering to the industry's minimum standards for appearance, grooming, and hygiene are important prerequisites for being a professional²⁰. Blue collar employees who deal with filth and grime on a regular basis are obviously not influenced in this respect, but officials like site managers are among the professions where people are frequently assessed by their appearance. Professionalism is expected in many white collar positions, including professional attire, well-groomed hair, and a clean-cut appearance without excessive piercing and obvious tattoos²¹.

Competence: Being professional involves developing skills and behavioural patterns. Having the fundamental foundational expertise in your line of work is the essence of professionalism²⁰. Professionals work really hard to keep up. Professionals understand they cannot remain still. They are aware that if they carry on acting in the same manner as they always have, circumstances would soon catch up with them²¹. They'll be passed by others. They thereby set themselves on a path of ongoing study and development.

Confidentiality: Information regarding the company you work for and its clients should always be kept private and confidential. Even if you are in a conversation where everyone

is asking what is going on and you know, never repeat critical information. Always be dependable²¹.

Honesty: Don't allow someone else get credit for anything they didn't do, and don't claim credit for something you didn't do²⁰. Always tell the truth. You will have greater credibility with both your employer and your coworkers, I promise.

Integrity: Integrity and openness in how you conduct yourself at work are the cornerstones of professionalism. This entails speaking truthfully to others and refraining from engaging in gossip inside the workplace. It's not a good idea to discuss coworkers behind their backs if you want to build a solid professional reputation.

Every project may be done in a professional way regardless of the size or kind of organisation. People notice when you do your assignment in a professional manner. People pay attention because experts typically accomplish mundane tasks in extraordinary ways. Professionals give everything a little extra. A secretary's ethics are moral standards related to the obligations of their position. When one accepts any position as an office manager, these standards are immediately accepted, and as such, one is obliged to respect them at all times, much as a Catholic Priest upholds the sacrament of reconciliation's confidentiality.

Loyalty: Always be loyal to your employer and the business. Never, ever, ever sell them out. Having said that, your supervisor still has to win your trust in order to earn your loyalty. Avoid being sucked into the office rumours. You will be rewarded for your commitment if you show it.

Reliable: Prove your dependability. Always arrive on time for work and meetings, and don't forget to bring the necessary paperwork with you. Make sure you do each assignment on time and to the best of your ability.

Being professional often entails that coworkers and colleagues consider and regard you as someone who is highly courteous in both formal and informal discussion. Respectful communication is characterised by appropriate language usage, effective verbal and nonverbal communication skills, eye contact, a warm smile, and true regard for the workers as individuals.

The following are the standards of conduct for office managers.

Responsibility: Establish priorities and complete work on time to demonstrate your responsibility²¹. Always adhere to deadlines after they have been set. Your manager has greater faith in you. Even if the order on your "to do" list changes ten times every day, make one for yourself. If the task cannot be completed as correctly and quickly as you would have, don't assign it. Always make sure the project is on schedule before delegating. Just because someone else is doing it doesn't mean you should disregard it.

Work unsupervised: Always keep your work up to date without supervision.

Be Cooperative: Always assist and share your expertise knowledge with your colleagues wherever it is possible. Always carry out duties happily. Also know when to say no (gently) and explain why you cannot do the task asked of you. Do not over load yourself.

Flexibility: Always prepare for change with the normal schedule of work. The best jobs are where you have a give and take arrangement. You do not know when you may require a change from your normal schedule.

Bribery: Do not be tempted to accept gifts or favour from internal and external clients just in case there is an underlying reason. Always follow the company's procedure and policies. Very rarely you will ever get something or nothing there is usually always a trade-off. You may end up paying the ultimate price which is your job.

The International Association of Administrative Professionals (redirected from Professional site workers International) was formed in Kansa City, Missouri, in 1942. At

the time, the organization was known as the National Secretary Association. The name of the organization was changed in 1982 to “Professional site workers International” and in 1998 to the “International Association of Administrative Professionals”. It is not a trade union for secretaries but a non-profit professionals networking and educational organization. Currently, there are 500 chapters with 22,000 members and affiliates all over the world²².

The mission of IAAP is “Enhancing the success of career-minded administrative professionals by providing opportunities for growth through educating community building and leadership development: recognizing excellence and set standards and provide educational networking and professional development opportunities for those pursuing career in the office administration field²². Membership was initially offered only to those who held the title “Secretary” and had worked in the position for a specified number of years but now its membership includes people with a diversity of office and administrative support job titles as well as various levels of experiences.

The professional body that is similar to the above mentioned association is ‘The Nigeria Institute of Professional site workers’ which was formed in 2018 with membership cutting across Nigeria. The Aims and Objectives of the Institute are:

1. To promote the science and encouragement of Site Administration and engineering in Nigeria and also to increase the knowledge relating to Site Administration and to promote dissemination.
2. To promote the establishment and maintenance of standards of competence and conduct of those engaged and interested to engage in Construction job and to foster and maintain a high standard of Professionalism in the field of Site Administration.
3. To serve as employment bureau for all members and liaise with employers of labour in respect of job opportunities for all members in general and to provide professional

consultative advice for members and the public at large, establish a Library and Research Centre for the use of its members and the general public.

2.1.9 Concept of Efficiency

Performance of jobs in organization and institution depends on the knowledge and ability of its construction workers toward understanding the dynamism in the market. Performance is defined as how well a person completes tasks and also the attitude with which he/she completes the tasks²³. However, the theory of performance is necessary to determine: relevant dimensions of performance, performance standards or expectations related to performance levels restrictions on how the situation should be measured when assessing performance, the number of performance levels or gradient and the extent to which performance should be based upon absolute versus relative comparison standards²⁴.

To better understand effectiveness on jobs, it is important to learn about links between efficiency, people, and situation factors. Efficiency is a very considerable factor influencing profitability of any organization²⁵. Performance is important for organizations as the efficiency leads to business success. Also, performance is important for individuals, as achieving tasks can be a source of satisfaction²⁶. Efficiency can be defined as behaviours or activities that are performed towards accomplishing the organization's objectives. Performance is the result of work of a person or group in an organization at a particular time which reflects how well the person or group reach the qualification of a job in a mission of organization's goal achievement. Many factors could influence efficiency including job stress, motivation, communication, physical work environment, meaningful work, standard operating procedures, and reward for good or bad systems, performance expectancy, and feedback on performance, in addition to knowledge, skills and attitudes²⁷. The physical work environment and its influence has been vastly studied

since the environment can hinder, intervene with, or set limits on the range of work behaviours that are displayed which in turn potentially impacts efficiency.

Factors associated with Efficiency

- 1. Communication.** Communication refers to the act, contact or double interacts among the individuals in delivering information, meanings and understanding. Several professionals have expressed mixed opinions on communication competency used as a predictor of job success. The importance of communication cannot be denied for organizations as applied to their ability to influence the bottom-line- as found in growing evidence linked with work productivity and performance.

With effective communication, an organization is able to have good coordination among the teams or units in an organization whereby the absence of it will reflect problems in running business operations or critically cause the damage between individuals. It has been suggested that the persons who are involved in communication processes need to possess both basic skills and abilities, otherwise, the information could be missed to understand appropriately, and furthermore it depends on the facilities available in organizations and the actions of managers to see the acceptability of information in order to have an accurate deliverance. Furthermore, as one of the crucial elements, the managers have been asked to learn the feedback gained from the construction workers which probably affects their work motivation. This relates to the circumstances that are currently faced by the construction workers including the right time of delivering such information, thus, they may perform based on the messages they receive. In obtaining such a good performance, the managers must show the initiatives of developing and providing opportunities to learn new skills to their construction workers through the communication process.

2. Motivation. Motivation is seen as the willingness or desire to do something, conditioned by the activity or the ability to satisfy some needs. The studies on construction workers' motivation have widely been practiced in today's organization across all sectors, regardless of their size. Those organizations realized that the actions of motivating their construction workers are crucial in order to achieve the organizations' goals and performance. The motivated construction workers relate to the manners of self-satisfaction, self-fulfillment and commitment that are expected to produce better efficiency and oblige to the organizations' policies which will extensively materialize efficiencies and competitive advantage. Motivation increases the job involvement by making the work more meaningful and interesting as well as the fact that it keeps the construction workers more productive and improves their subsequent efficiency²⁸.

The construction site worker motivation is obviously important. In fact, it is one of the most important and essential factors for the achievement of construction workers, and ultimately the organizational targets and efficiency²⁹. Another study asserts that motivation to work, whether intrinsic or extrinsic are very essential in the lives of workers because they form the fundamental reason for working in life³⁰. It represents the complex forces and needs which provide the energy for an individual to perform a particular task³¹. Moreover, construction site worker motivation serves as an essential component of business operations whereby high motivation coincides with job satisfaction, a sense of pride in one's work, a lifelong commitment to organization which enhances performance and productivity³².

3. Job Stress. In his earlier literature, it is mentioned that job stress is produced when one cannot properly coordinate available resources and job demands with personal abilities. Job stress is also derived from a situation of job environment that poses threat to an individual. Some organization may demand achieving a certain level of work, while their

construction workers may be unable to cope with the given tasks. It is said that the demand exceeds the capacity of an individual which simultaneously fails to satisfy the top management. Moreover, job stress has been known universally as a social problem which has a combination of factors that disrupts the workers physically and psychologically, and affects their health care as a whole^{33, 34}. This is in line with the studies that have been conducted on the effect of job stress in terms of medical matters such as heart disease, gastroenteritis, sleep disorders and other accidents that will decrease the rate of efficiency, and the increased rate of absence and job displacement³⁵. However, it has been said that a small amount of pressure can bring about an increase in personnel's efficiency, while too much pressure results in negative mental and physical changes. This relationship can be illustrated with an inverted-U shape showing that the absence of stress creates no motivation to one's performance.

The potential of job stress could arise from three aspects such as environment, organizational and individual (construction site worker) factors. The possibility of stress affecting one's performance is great³⁶. Individual is said to be exposed to a range of stressors both at work and in his or her personal life which ultimately affects work performance³⁷.

Performance Measures

Given the extent to which the definition of performance is used, means that the term can be observed many researchers the different financial and non-financial types of objectives, which, in turn, are associated to a multiple number of indicators³⁸.

By definition, a performance measure is the numerical or quantitative indicator that shows how well each objective is being met. However, performance measurement requires an extensive use of quantitative and qualitative data, with clear definitions and specific frequency for analysis, so the choice between them depends on the purpose of the

measurement and, in many cases, the availability of the data. Many researchers have already exposed before limitations of traditional performance measures based on costs.

Some of these limitations are:

- (i) The exclusion of a strategic perspective;
- (ii) The lack of focus on success factors; and
- (iii) The poor consideration of stakeholders' needs and expectations.

Traditionally, the success of a company has been evaluated by the use of financial measures. Although financial measures can appear in several different forms, three of the most common ones can be explained as Profit Margins, Return on Assets (ROA) and Return on Equity (ROE), for example, distinguishes five types of performance objectives that have on an operation system: cost, dependability, flexibility, quality and speed³⁹. In a perspective of traditional productivity, numerous measures can be found in the literature, but usually two traditional types of index productivity measures are distinguished: partial productivity and total productivity⁴⁰.

Many researchers, increasing number of organization have been measuring performance areas that are not financial but could affect profitability, such as customer loyalty and construction site worker satisfaction⁴¹.

Importance of Measuring Efficiency

They mention the importance and necessity of measuring efficiency to include the following⁴².

1. Support and enhance improvement
2. Assist managers to adopt long-term perspectives
3. develop a more accurate communication
4. supporting organizations to allocate their resources in attractive improvement activities

5. a more effective and efficient operating system of planning and control or the performance system
6. individually motivate and encourage the adoption of a more appropriate organizational behavior
7. Support the initiatives of the management and in the change management.

2.1.9.1 Site Management

A Builder must display good site management practices that are important in maintaining efficiency, cost effectiveness and control on project. Based on this, good customer relations, good reputation and high integrity are maintained. In order to achieve specified quality standards at first attempt, all the site activities must be gotten right at first attempt that must be managed by the Builder⁴³. The effectiveness of managing production process cannot be economically attained by force, but requires the creation of conditions that will encourage self-motivation and bring about team spirit that is important to an efficient projection execution⁴³. Site management involves a combination of activities, which turn basic resources into a finished product⁴⁴. Construction can be seen as the conversion of raw resource inputs into defined functioning output, by means of a managed process⁴⁵. This can range from organization of the materials, labour, and other resources on the site activities which control the flows of information and finance⁴⁴. The construction site is, therefore, seen as a key area where money is made or lost and where there is considerable scope for improving efficiency, productivity and quality. The following reasons are why practicing of good site management is imperative⁴⁵.

1. Ensuring the most efficient and effective use of resources;
2. Maintaining high standard of quality and workmanship;
3. Maintaining high standard of health and safety on building sites; and

4. Building trust and good relations with suppliers, other professionals and support organisations which leads to fewer problems, delays and disruptions.

In order to achieve good site management on construction sites, the following areas have to be taken very seriously⁴⁵:

1. Project drawings, specification and contract documents must be interpreted correctly;
2. All the projects requirements must be fully understood;
3. Resources for the project must be correctly determined and well allocated;
4. Functional site layout must be assessed and provided;
5. Execution of the work must be well planned and scheduled while not forgetting the establishment of quality control measures;
6. Compliance to statutory regulations should be ensured;
7. Planning and programming the execution of work should be ensured;
8. Construction processes must be monitored and controlled and corrective measures taking when deviation occurs;
9. Ensuring that the right calibre of professionals is engaged with clearly defined roles.

There are basically six sub-processes that site management is divided into. These include⁴⁵.

1. Management, supervision, and administration of sites: Including correspondence, minutes, labour allocations, payroll, progress reporting, notices/claims, instruction, drawing register, and technical information.
2. Commercial management: This covers estimating, valuations, sub-contracting, payment, variations, day works, cost-value reconciliation, final accounts, and cash flow management.

3. Legal, health and safety: Management of legal, health and safety requirements on sites. This considers safety policy, insurance and building regulations.
4. Planning, monitoring and control: This covers all activities associated with project planning and scheduling, typically the production of Gantt charts, network analyses, method statements, resource levelling, progress reports and exception reports.
5. Delivery and materials' handling: The activities associated with the management of deliveries and the subsequent handlings of materials on site are covered including requisitions, purchase orders, material call off, and plant returns.
6. Production on-site and off-site: This considers activities supporting production such as testing, setting out, dimensional checks, and plant maintenance.

2.1.9.2 Effective Site Management

The effectiveness of managing the production process cannot be economically achieved through the use of force but the creation of conditions that will encourage self-motivation and engender team spirit which is sine qua non to efficient project execution⁴³. Apart from these, effective site management requires the balancing of the following by the contractor's team⁴³.

1. Right persons: It is very important for contractors handling building projects to ensure that the right people are appropriately placed.
2. Communication: Formal lines of communication have to be clearly established from the beginning of a project and must be brought to the attention of all the parties involved in the project. This is the way to avoid misleading information circulating.
3. Progressing system: This is the act of checking, measuring and recording of progress in comparison with planned requirements, and the expatiating on any items subject to delay or likely to be delayed, in order to meet up with the plan.

2.2 Theoretical Framework

This relates to theories formulated to explain, predict, and understand phenomena and to challenge an existing knowledge within the limit of critical boundary assumptions. It describes and introduces the theory that explains the essence of a research problem⁴⁶. The researcher also strengthened the study through: articulating the theoretical assumptions of a research study and it forces you to address questions of why and how. It permits you to intellectually transition from simply describing a phenomenon you have observed to generalizing about various aspects of that phenomenon. This section is made up of the stakeholder's theory, the social contract theory, time management, and social learning theory.

2.2.1 Stakeholder's Theory

Stakeholder's theory was first proposed by Edwards Freeman and he was the first to identify stakeholders in the organization in his book "Strategic management – a stakeholder's approach".

Stakeholder theory promotes a practical, efficient, effective, and ethical way to manage organizations in a highly complex and turbulent environment. It is a practical theory because all organizations and institutions have to manage stakeholders – whether they are good at managing them is another issue. It is efficient because stakeholders that are treated well tend to reciprocate with positive attitudes and behaviors towards the organization, such as sharing valuable information (all stakeholders), buying more products or services (customers), providing tax breaks or other incentives (communities), providing better financial terms (financiers), or working hard and remaining loyal to the organization, even during difficult times (construction workers)⁴⁷.

Scholars have defended stakeholder theory using a wide variety of theoretical perspectives, including the principle of fairness and pragmatism⁴⁸. Stakeholder theory suggests that “managing for stakeholders” involves attending to the interests and well-being of these stakeholders, at a minimum⁴⁹. However, frequently other stakeholder groups are included, such as communities, special interest or environmental groups, the media, or even society as a whole. Stakeholder theory proposes that treating all stakeholders well creates a sort of synergy⁵⁰. This last thought, that following stakeholder precepts is associated with both good management and higher efficiency, at this point is nearly irrefutable. Numerous scholars have tested and supported this theory across a number of industries, in both domestic and international organization, and in a variety of contexts^{51, 53}.

The theory becomes relevant in this research because in order to ensure Behavioral Pattern in the organization, it must first come from stakeholders in the organization which include construction workers, etc. Stakeholders must be the first to display Behavioral Pattern while other stakeholders follow. Following Behavioral Pattern by stakeholders in an institution or organization brings about improved efficiencies.

2.2.2 Social Contract Theory

The proponents of the social contract theory includes Thomas Hobbes and later John Locke and Jean Jacques Rousseau. The social contract is a concept in the philosophy of ethics that has more recently been applied to the study of Behavioral Pattern. Many researchers social contract theory, moral and ethical codes are the principles all rational people would adopt as rules of life if they could count on others to do the same. This theory believes valid and universally applicable moral rules can be determined by asking what rules people would voluntarily make if there were no rules. The social contract is an unwritten and strictly hypothetical agreement not to violate moral rules. Social contract

theory believes organization should perform its duties under the condition its actions benefit the society. The theory has been criticized by people who believe in the laissez faire model of capitalism.

This theory relates to Behavioral Pattern in the sense that construction workers in the organization acts only under the agreement they have with the organization. The construction workers only believed in the laid down rules and regulation and the principles and ethics the organization feel is right. The organization determines what is morally right and acceptable in the society⁵³. This research will anchor on the social contract theory because Behavioral Pattern in the organization are based on what the organization feels is morally right and acceptable.

2.2.3 Time-Management Theory

Time-management theory can be applied to understand and improve the behavioral pattern, efficiency, and time-management of middle-skilled construction workers. Effective time management is essential for construction workers to complete their tasks on time and within budget. Moreover, construction work often involves complex tasks that require efficient coordination and communication among workers. Therefore, improving time-management skills can help construction workers to increase their productivity and reduce stress.

One study investigated the impact of time management training on the efficiency of construction workers⁷⁰. They provided time management training to construction workers and measured their efficiency before and after the training. The results showed that the training improved the efficiency of construction workers, and they were able to complete their tasks more effectively and within the given time frame. Another study investigated the relationship between time management and productivity⁷¹. They examined the time

management skills of construction workers and their impact on productivity. The results showed that workers with better time-management skills were more productive and completed their tasks within the given time frame. Furthermore, a study investigated the relationship between time management and job satisfaction among construction workers⁷. The results showed that workers who had better time-management skills were more satisfied with their jobs and experienced less stress.

In conclusion, time-management theory can be applied to improve the behavioral pattern, efficiency, and time-management skills of middle-skilled construction workers. Providing time-management training to construction workers can improve their efficiency, productivity, and job satisfaction. By applying time-management skills, construction workers can complete their tasks more effectively, reduce stress, and increase their job satisfaction.

2.2.4 Social Learning Theory

Social learning theory is a psychological theory that suggests that people learn from observing and imitating the behavior of others. This theory is based on the idea that individuals can learn new behaviors, attitudes, and values by observing and modeling the behavior of others. Social learning theory has been applied in many areas, including education, psychology, and criminology. One of the key proponents of social learning theory is Albert Bandura. In his 1977 book "Social Learning Theory," Bandura argued that behavior is learned through observation, modeling, and reinforcement. He suggested that individuals can learn new behaviors by observing the behavior of others and the consequences of that behavior. Bandura also emphasized the role of self-efficacy in social learning theory, which refers to an individual's belief in their ability to perform a specific behavior.

Social learning theory can be applied to understand and improve the behavioral pattern, efficiency, and time-management of middle-skilled construction workers. This theory suggests that individuals can learn new behaviors, attitudes, and values by observing and modeling the behavior of others. Therefore, construction workers can learn from their peers who demonstrate effective time-management skills and behavioral patterns. One study investigated the relationship between social learning and work performance in construction⁷³. They examined the role of social learning in developing time-management skills among construction workers. The results showed that social learning was a significant predictor of time-management skills and work performance among construction workers.

Another study investigated the effectiveness of a social learning intervention in improving the time-management skills of construction workers⁷⁴. The intervention involved providing workers with opportunities to observe and learn from their peers who demonstrated effective time-management skills. The results showed that the intervention was effective in improving the time-management skills of construction workers. Furthermore, a study investigated the impact of social learning on the behavioral patterns of construction workers⁷⁵. The results showed that social learning was positively associated with the development of desirable work behaviors, such as cooperation and communication, among construction workers.

In conclusion, social learning theory can be applied to improve the behavioral pattern, efficiency, and time-management skills of middle-skilled construction workers. Providing opportunities for workers to observe and learn from their peers who demonstrate effective time-management skills and desirable work behaviors can be an effective way to improve the performance of construction workers.

2.3 Profile of Lagos State

Lagos State was created on May 27, 1967 by virtue of States [Creation and Transitional Provisions] Decree No. 14 of 1967 which restructured Nigeria's Federation into 12 States. Prior to this, Lagos Municipality was administered as a Federal Territory by the Federal Government through the Federal Ministry of Lagos Affairs as the regional authority, while the Lagos City Council governed the City of Lagos. Equally, the Metropolitan areas [Colony Province] of Ikeja, Agege, Mushin, Ojo, Ikorodu, Epe, and Badagry were then administered by the Western Region Government. The State took off as an administrative entity on April 11, 1968 with Lagos Island serving the dual role of being the State and Federal Capital respectively. However, with the creation of the Federal Capital Territory of Abuja in 1976, Lagos ceased to be the capital of the State, as this was moved to Ikeja. Similarly, with the formal relocation of the seat of the Federal Government to Abuja on 12th December, 1991, Lagos ceased to be Nigeria's political capital. Nevertheless, Lagos remains the nation's economic and commercial capital. According to extant political records, *“Lagos is to the people of Nigeria, what the head is to the body of an individual”*

Location/Extent

The State is located on the South–Western part of Nigeria, on the narrow plain of the Bight of Benin. Lying approximately on longitude 20 42'E and 32 2'E respectively, and between latitude 60 22'N and 60 2'N, Lagos State is bounded in the North and East by Ogun State of Nigeria, in the West by Republic of Benin, and stretches over 180 kilometers along the Guinea Coast of the Bight of Benin on the Atlantic Ocean. Its territorial extent and political jurisdiction encompasses the city of Lagos and the four administrative divisions of Ikeja, Ikorodu, Epe and Badagry collectively referred to as IBILE and covering an area of 358,862 hectares or 3,577 sq. km. which represents 0.4% of Nigeria's territorial land mass of 923,773 sq. km.

Topography of Lagos State

The dominant vegetation of the State is the swamp forest of the fresh water and mangrove swamp forests, both of which are influenced by the double rainfall pattern of the state, which makes the environment a wetland region. Generally, the State has two climatic seasons: Dry [November-March] and Wet [April-October]. The drainage system of the State is characterized by a maze of lagoons and waterways, which constitutes about 22% or 787 sq. km. [75.755 hectares] of the State's territory. The major water bodies are the Lagos and Lekki Lagoons, Yewa, Ogun, Oshun, and Kweme Rivers. Others are Ologe Lagoon, Kuramo Waters, and Badagry, Five Cowries and Omu Creeks respectively.

The Lagos Megacity

Lagos, Nigeria's lagoon city, Africa's leading NEPAD City and World's sixth megacity is a burgeoning global urban agglomeration which attained megacity status in 1995 when its population soared to over 10 million people, per UN-Habitat. From its global city ranking of 31st in 1985, Lagos population exploded to 13.4 million in Y2000 to become world's sixth megacity and Africa's foremost urban centre and hub of national, regional and global socio-economic and political activities. The Megacity region, which approximates to 17 of the State's 20 Local Government and 37 Local Council Development Areas and impinges imperceptibly on four local government areas of the adjoining Ogun State of Nigeria, is geographically disjointed [maze of islands/mainland], located on poor soil [wetlands] and overwhelmed by its growth [6% – 8% urbanization rate].

Lagos State Economy

Lagos State plays a pivotal role in the Nigerian economy and as a nation's commercial nerve centre, remains the focal point of economic activities. The Lagos Gross Domestic Product [GDP] accounted for 26.7% of Nigeria's total GDP and more than 50% of non-

oil GDP. Over 50% of Nigeria's non-oil industrial capacity is located in Lagos. Lagos is also Nigeria's financial hub with all major banks having their headquarters in the City. It is also home to the Nigerian Stock Exchange [NSE]. It accounts for over 80% of the country's foreign trade flows, and generates over 50% of Nigeria's port revenues. The estimated GDP of Lagos was put at N27.125trillion [\$145.141billion] in 2016 by the Lagos Bureau of Statistics and is expected to rise to N628trillion [\$157.728billion] by 2018 with projected average annual growth rate of 4.2% up to 2018. Lagos economy, with an estimated population of 24million is larger than any other economy in the ECOWAS sub-region despite the rebasing of Ghana's GDP.

Fuelled by Public-Private investments, as well as an estimated population of over 24million, Lagos diverse economy is the leading contributor to Nigeria GDP. A 10% growth is expected in the local economy as the State plans to widen the tax base and improve collection methods to boost Local Tax Receipts towards at least NGN360bn by 2017 up from N200bn in 2019, edging towards 80% of annual revenues from 70% of income in the late 2000.

Lagos State remains the economic, financial and commercial nerve centre of Nigeria and the ECOWAS. Regionally, her Gross National Product [GNP] is three times that of any West African Country, thus making Lagos State ECOWAS economic hub and the springboard for innovation and development in Nigeria and sub-Saharan Africa.

Lagos in Nigeria's Economy

1. 29 Industrial Estates and 4 Central Business Districts [CBD]
2. Largest market in Sub-Saharan Africa.
3. Home of the Nigerian Capital and Money Market [Financial Hub]
4. West Africa Oil/Gas Pipeline Project and National Power/Energy Load Centre

5. Home to Nigeria's Chief Ports – Apapa & Tin Can Island [70% of total National cargo freight]
6. Media hub and international telecommunication gangway [over 50% of Nigeria's PTO/GSM subscribers]
7. Location of Nigeria's busiest international/regional aviation hub – Murtala Mohammed International Airport, Ikeja [over 70.61% of international and 58.30 % of domestic traffic]
8. Home to 70% of the Country's total industrial investment and 65% of its commercial activities.
9. Highest Vehicular Density – over 222/km [National 11km]
10. Internally Generated Revenue accounts for over 60% of State's annual budget skewed in favour of capital expenditure.
11. Home to over 200 financial institutions

Lagos in Africa's Economy

1. GNP, 3 times that of any West Africa Country [World Bank, 2001]
2. Hub of West/Central Africa Maritime and Aviation
3. Node of West African Gas Pipeline Project
4. Nigeria's Nexus of Trans-African Highway
5. Sub-Saharan African largest ICT Market

Lagos – The Financial Hub

Lagos State is the hub of Nigeria and West Africa's regional financial system which is dominated by mega banks, insurance firms, micro-finance/community banks; discount houses; and the capital market. Indeed, the Nigerian Government's vision 20:20:20 and the National Financial Sector Strategy [FSS] has envisioned Lagos as the nation's financial hub with its automated headquarters of the Nigeria Stock Exchange, the largest

and most active exchange in sub-Saharan Africa. In addition, there exist The Investments and Securities Tribunal established by the Investments and Securities Act [ISA], 2007 to adjudicate on all capital market disputes.

The Lagos position as regional financial hub is acknowledged globally especially since ‘despite the relocation of the Central Bank of Nigeria’s [CBN] Headquarters to Abuja, Tinubu Square [Lagos Island Central Business District] still holds so much potential. As a further demonstration of this, Lagos State, as the gateway to Nigeria’s and ECOWAS economy, houses the headquarters/regional offices of national financial and professional regulatory authorities.

2.3.1 Site Management in Lagos

As the commercial capital of Nigeria, Lagos as in recent times witnessed a boom in the construction industry. The city is undergoing a massive infrastructural development and it is imperative to state that several construction projects are ongoing. This construction drive has been traced to the fact that there is an infrastructure deficit in Lagos and the government is interested in solving this problem. The construction industry is vital to the development of any nation⁵⁴. The pace of the economic growth of any nation can be measured by the development of physical infrastructures, such as buildings, roads and bridges⁵⁵. Construction project development involves numerous parties, various processes, different phases and stages of work and a great deal of input from both the public and private sectors, with the major aim being to bring the project to a successful conclusion. The level of success in carrying out construction project development activities depend largely on the quality of the managerial, financial, technical and organisational performance of the respective parties, while taking into consideration the associated risk management, the business environment, economic and political stability.

Construction is becoming more complex, therefore a more sophisticated approach is necessary to deal with initiating, planning, financing, designing, approving, implementing and completing a project⁵⁶. Project performance remains a prominent issue in project delivery because projects involve defined objectives which must be achieved and numerous resources which need to be efficiently utilized. Construction site managers are site agents or building managers responsible for the day-to-day on site running of a construction project. Site managers are required to keep within the timescale and budget of a project and manage any delays or problems encountered on site during the construction project. However, the criteria for success are in-fact much wider, incorporating the performance of the stakeholders, evaluating their contributions and understanding their expectations⁵⁷. A successful construction project performance is achieved, when stakeholders meet their requirements, individually and collectively. Since performance is an individual contribution to the execution of the task required in completing the construction project, the performance of each participant should be measured, evaluated and prioritized at every stage of the phases in order to determine the extent to which a project has been successful⁵⁸.

The Nigerian construction industry produces nearly 70% of the nation's fixed capital formation yet its performance within the economy has been, and continues to be, very poor⁵⁹. For example, Nigerian construction industry contribution to the employment has remained consistently at 1.0% over the last decade against the World Bank's average observation of about 3.2% in developing countries. The last decade however exposed the declining level of client's satisfaction from the built facilities as a result of poor quality performance of site managers in addition to the perennial problems of time, quality and cost overruns in the Nigerian construction industry⁵⁹. This has necessitated a radical change in industry practice in order to improve quality of construction processes and the

level of client's satisfaction arising there from by devising methodology for evaluating the quality performance of the contractors in order to assist construction clients in selecting quality-oriented organizations that will provide higher quality services and product within budget and on schedule⁵⁹.

In large firms, construction site managers are expected to avoid defects and rework, avoid accidents on construction sites, be innovative, apply appropriate technology on site and to be qualified academically for site management⁵⁴. Large firms require their site managers to serve as the face of the firm and to be able to grant interview to members of the press and have experience in public relation. The level of experience and education of site managers is a criterion for measuring the performance of site managers in large firms.

Medium firms still measures performance of site managers using traditional criteria of cost, time and quality and are only concerned about absence of defects and rework⁵⁴. In small firms, the age of workers is the most important criterion for measuring the performance of construction site managers. The level of experience and training of workers decides the performance of site managers in small firms⁵⁴.

Overall, adherence to drawing and technical specification and maintaining quality standard (cost, and time), project performance, owner's requirement, scope of project, communication, viability of project, are important criteria for measuring the performance of construction site managers⁵⁴. Management and Leadership skills are important key performance indicators across all the various categories of firm⁵⁴.

2.3 Review of Empirical Studies

2.3.1 Behavioural Pattern and Employee Efficiency

There have been several studies that have focused on assessing the behavioral patterns and efficiency of construction workers. These studies have utilized various empirical methods to analyze the behavior and efficiency of construction workers.

One study used wearable sensors to collect data on the physical activity of construction workers⁵⁵. The study found that the physical activity of workers was positively associated with their productivity and efficiency. The study also found that workers who had better physical fitness had higher productivity levels than those who had poor physical fitness. Another study analyzed the impact of safety training on the behavior and efficiency of construction workers⁵⁶. The study found that safety training improved the safety behavior of workers and also increased their efficiency levels.

A study analyzed the relationship between the behavior of construction workers and the quality of their work⁵⁷. The study found that workers who exhibited positive behavior, such as being proactive and having good communication skills, produced higher quality work than those who exhibited negative behavior.

A study analyzed the relationship between worker behavior and project outcomes⁵⁸. The study found that workers who exhibited positive behavior, such as being proactive and having good teamwork skills, produced better project outcomes than those who exhibited negative behavior. Overall, these studies suggest that the behavior of construction workers plays a critical role in their efficiency and productivity levels. By promoting positive behavior and providing adequate training, construction companies can improve the behavior and efficiency of their workers, leading to better project outcomes^{130,132,133}.

2.4 Conceptual Framework

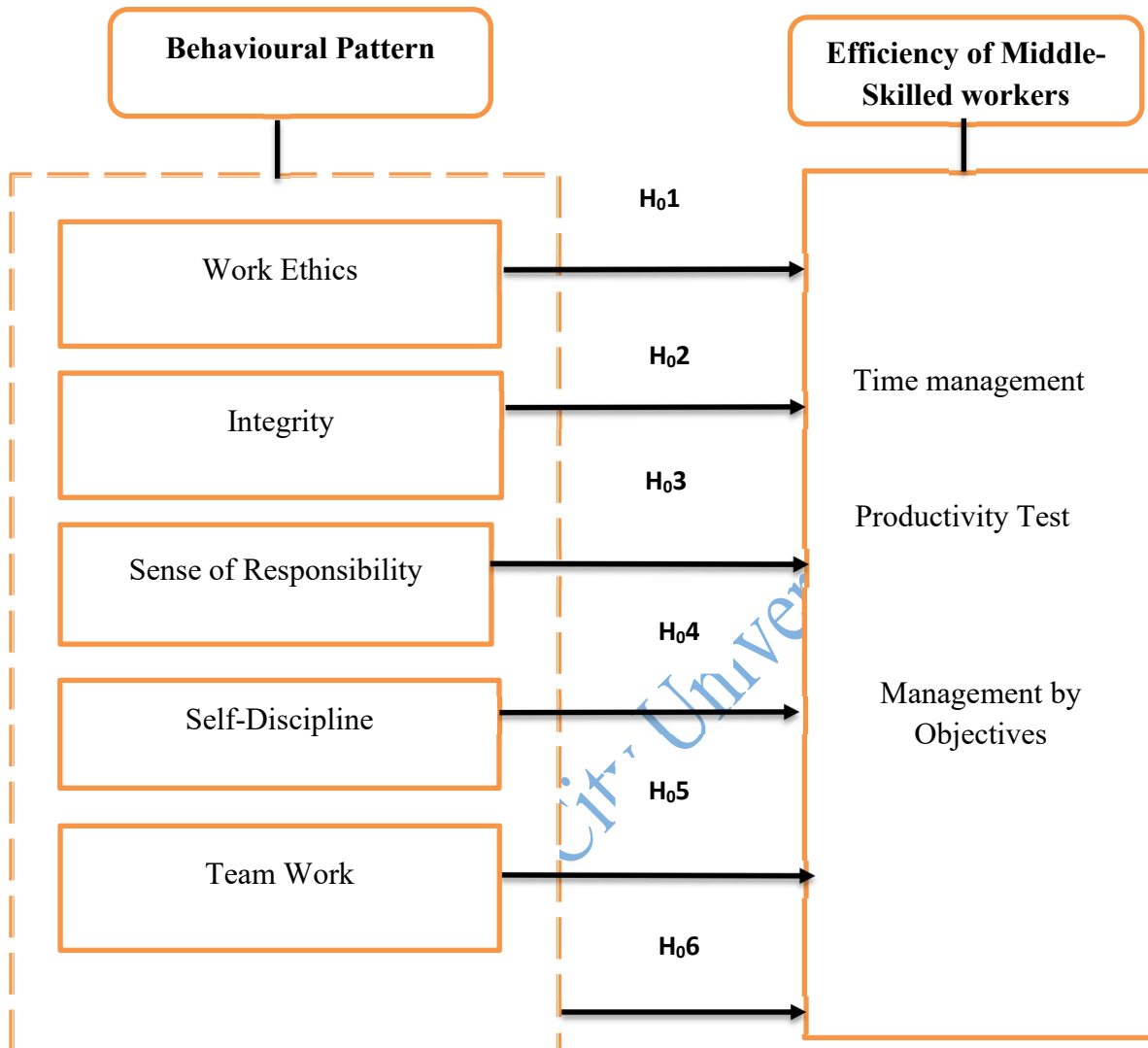


Figure 2.1: Conceptual Model for this Study

Source: Researcher, 2023

This study presents a conceptual framework that explains the interaction between behavioural pattern (independent variable) and efficiency of middle-skilled construction workers (dependent variable) in selected LGAs in Lagos State, Nigeria. Specifically, the conceptual framework shows the gap and the resultant hypotheses to be examined. The first, second third fourth, and fifth hypotheses examined the individual effect of behavioural pattern measures; work ethics, integrity, sense of responsibility, self-discipline, and team work on efficiency of middle-skilled construction workers

respectively. Hypothesis six examined the effect of behavioural pattern on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria.

Dependent construct – Efficiency of Construction worker

Independent construct – Behavioral Pattern

The above is mathematically expressed as $Y = f(x)$

Where:

Y = dependent variable

X = independent variable

Y = Efficiency of Construction worker

X = Behavioral Pattern

Therefore, from this equation, Efficiency (Ef) would depend on Behavioral Pattern (BP).

This is expressed as:

Efficiency = f (Behavioral Pattern)

That is $Ef = f(BP)$

Where $Ef = Y$ and $BP = X$

The X and Y are broken down as follows:

Where, $X = (x_1, x_2, x_3, x_4, x_5)$

$X = BP$

$X_1 = Behavioral Pattern$

X₂ = Team work

X₃ = Integrity

Similarly,

Y = Efficiency of Construction worker

$$Y = f(x)$$

$$Y = f(X_1) \dots\dots\dots \text{Equation 1}$$

$$Y = f(X_2) \dots\dots\dots \text{Equation 2}$$

$$Y = f(X_3) \dots\dots\dots \text{Equation 3}$$

$$Y = f(X_4) \dots\dots\dots \text{Equation 4}$$

$$Y = f(X_5) \dots\dots\dots \text{Equation 5}$$

$$Y = a_0 + \beta_1 X_1 + e \dots\dots\dots \text{Equation 6}$$

The variables in equation 1-4 are the working equations to be evaluated in this study.

$$Y = a_0 + \beta_1 X_1 + e$$

$$Y = a_0 + \beta_2 X_2 + e$$

$$Y = a_0 + \beta_3 X_3 + e$$

$$Y = a_0 + \beta_4 X_4 + e$$

$$Y = a_0 + \beta_5 X_5 + e$$

$$Y = a_0 + \beta_1 X_1 + e$$

2.5 Summary of Gap in Literature Reviewed

There is a noticeable gap in the existing literature regarding the interaction between behavioral patterns and the efficiency of middle-skilled construction workers in Lagos State, Nigeria. While construction projects play a pivotal role in the economic development of the region, there is a lack of comprehensive research that explores how the behavioral patterns of these workers impact their overall performance and productivity^{134,135,136}. Firstly, the available literature primarily focuses on the technical aspects of construction work, such as the use of modern equipment, materials, and construction techniques. While these factors are undoubtedly important, the role of human behavior and psychology in the construction industry remains underemphasized^{137,138}. Behavioral patterns, including work ethic, motivation, communication skills, and teamwork, are critical in determining the efficiency of construction workers¹³⁹. The current research fails to address these essential non-technical aspects adequately. Secondly, the Nigerian construction industry is distinct in its socio-cultural context, which can significantly influence the behavior of workers^{140,141}. Lagos State, as a cosmopolitan area, is characterized by a diverse workforce with varied cultural backgrounds, traditions, and values. This diversity can affect how workers interact, communicate, and collaborate on construction sites. However, little research has been done to understand how cultural factors impact the behavioral patterns of construction workers and, consequently, their efficiency^{142,143}.

Furthermore, the existing literature typically relies on anecdotal evidence or industry reports rather than empirical studies^{130,144,145,146}. Robust scientific research that delves into the relationships between behavior and efficiency in construction work in Lagos State is conspicuously lacking. Such studies are essential for providing evidence-based recommendations for improving the efficiency and productivity of middle-skilled

construction workers^{146,147}. In all, there is a substantial gap in the literature concerning the interaction between behavioral patterns and the efficiency of middle-skilled construction workers in Lagos State, Nigeria^{148,149}. To address this gap, this study concentrate on the behavioral aspects of construction work, considering the unique socio-cultural context of Lagos State. This approach will not only advance our understanding of the construction industry in Lagos but also provide valuable insights for improving the performance and productivity of middle-skilled construction workers in the region

Do Not Copy, Lead City University, Nigeria

Endnotes

1. W.R.Griffin , M.P.Jean , and S. M. Gully. *Organizational behavior: Managing people and organizations*. CENGAGE learning, 2020.
2. W.W.Fisher, C.C. Piazza, and H.S. Roane, eds. *Handbook of applied behavior analysis*. Guilford Publications, 2021.
3. J.P.Allegrante, M.T. Wells, and J.C. Peterson. "Interventions to support behavioral self-management of chronic diseases." *Annual review of public health* 40 (2019): 127-146.
4. Y.Wang, L.Jiping, Y.Jun, X.Ma, L.Xiaoqing, W.Jing, G.Yang, G.Ren, and Y.Feng. "Analysis of the environmental behavior of farmers for non-point source pollution control and management: An integration of the theory of planned behavior and the protection motivation theory." *Journal of environmental management* 237 (2019): 15-23.
5. V.Embse, V.R.Shannon, T.Gibbs, and A.Mankin. "Teacher stress interventions: A systematic review." *Psychology in the Schools* 56, no. 8 (2019): 1328-1343.
6. A.M.Rogowska., C.Kuśnierz, and A.Bokszczanin. "Examining anxiety, life satisfaction, general health, stress and coping styles during COVID-19 pandemic in Polish sample of university students." *Psychology Research and Behavior Management* (2020): 797-811.
7. M,A.Abolfotouh, F.A.Adel , Z.Almutairi, M.Salam, A.Alhashem, A.A.Abdallah, and O.Modayfer. "Attitudes toward mental illness, mentally ill persons, and help-seeking among the Saudi public and sociodemographic correlates." *Psychology research and behavior management* (2019): 45-54.
8. K.Nazah, W.N.Ayu , R.Irwansyah, R.P.Dewi, and D.N.Septa . "The Role of UKT Scholarships in Moderating Student Financial Attitudes and Financial Literacy on Finance Management Behavior." *Jurnal Mantik* 6, no. 2 (2022): 2205-2212.
9. H,Aguinis, I.Villamor, and P.G.Kelly. "Understanding employee responses to COVID-19: a behavioral corporate social responsibility perspective." *Management Research: Journal of the Iberoamerican Academy of Management* 18, no. 4 (2020): 421-438.
10. B.B.Saeed, B.Afsar, S.Hafeez, I.Khan, M.Tahir, and A.A.Muhammad . "Promoting employee's proenvironmental behavior through green human resource management practices." *Corporate Social Responsibility and Environmental Management* 26, no. 2 (2019): 424-438.
11. R.Chaudhary. "Green human resource management and employee green behavior: an empirical analysis." *Corporate Social Responsibility and Environmental Management* 27, no. 2 (2020): 630-641.

12. J.Y.Yong, Y.Mohd-Yusoff, T. Ramayah, S.Sehnem, and V.Mani. "Pathways towards sustainability in manufacturing organizations: Empirical evidence on the role of green human resource management." *Business Strategy and the Environment* 29, no. 1 (2020): 212-228.
13. M.Darvishmotevali, and L.Altinay. "Green HRM, environmental awareness and green behaviors: The moderating role of servant leadership." *Tourism Management* 88 (2022): 104401.
14. S.Roscoe, N.Subramanian, J.Charbel JC, and T.Chong. "Green human resource management and the enablers of green organisational culture: Enhancing a firm's environmental performance for sustainable development." *Business Strategy and the Environment* 28, no. 5 (2019): 737-749.
15. O.M.Ababneh. "How do green HRM practices affect employees' green behaviors? The role of employee engagement and personality attributes." *Journal of Environmental Planning and Management* 64, no. 7 (2021): 1204-1226.
16. H.Kirk. "Prediction versus management models relevant to risk assessment: The importance of legal decision-making context." *Clinical Forensic Psychology and Law* (2019): 347-359.
17. S.Raisch, and S.Krakowski. "Artificial intelligence and management: The automation–augmentation paradox." *Academy of management review* 46, no. 1 (2021): 192-210.
18. T.A.Wadden, S.T.Jena, and M.L. Butryn. "Lifestyle modification approaches for the treatment of obesity in adults." *American psychologist* 75, no. 2 (2020): 235.
19. Y.J.Kim, W.G. Kim, H.M. Choi, and K.Phetvaroon. "The effect of green human resource management on hotel employees' eco-friendly behavior and environmental performance." *International journal of hospitality management* 76 (2019): 83-93.
20. M.Kim, A.Chan Hyung Kim, J.I. Newman, G.R. Ferris, and P.L. Perrewé. "The antecedents and consequences of positive organizational behavior: The role of psychological capital for promoting employee well-being in sport organizations." *Sport Management Review* 22, no. 1 (2019): 108-125.
21. A.Revythi, and N.Tselios. "Extension of technology acceptance model by using system usability scale to assess behavioral intention to use e-learning." *Education and Information technologies* 24 (2019): 2341-2355.
22. A.Capizzi, J.Woo, and M.Verduzco-Gutierrez. "Traumatic brain injury: an overview of epidemiology, pathophysiology, and medical management." *Medical Clinics* 104, no. 2 (2020): 213-238.

23. S.V.Faraone, A. L. Rostain, J.Blader, B.Busch, A.C. Childress, D.F. Connor, and H.Jeffrey. Newcorn. "Practitioner Review: Emotional dysregulation in attention-deficit/hyperactivity disorder—implications for clinical recognition and intervention." *Journal of Child Psychology and Psychiatry* 60, no. 2 (2019): 133-150.
24. T.Yao, Q.Qiu, and Y.Wei. "Retaining hotel employees as internal customers: Effect of organizational commitment on attitudinal and behavioral loyalty of employees." *International Journal of Hospitality Management* 76 (2019): 1-8.
25. E.Robinson, E.Boyland, A.Chisholm, J.Harrold, N.G. Maloney, L.Marty, B.R. Mead, Rob Noonan, and Charlotte A. Hardman. "Obesity, eating behavior and physical activity during COVID-19 lockdown: A study of UK adults." *Appetite* 156 (2021): 104853.
26. L.Li, W.He, Li Xu, I.Ash, M.Anwar, and X.Yuan. "Investigating the impact of cybersecurity policy awareness on employees' cybersecurity behavior." *International Journal of Information Management* 45 (2019): 13-24.
27. O.S.Itani, and L.D. Hollebeek. "Light at the end of the tunnel: Visitors' virtual reality (versus in-person) attraction site tour-related behavioral intentions during and post-COVID-19." *Tourism Management* 84 (2021): 104290.
28. M.S.Mitchell, R.L. Greenbaum, R.M. Vogel, M.B. Mawritz, and D.J. Keating. "Can you handle the pressure? The effect of performance pressure on stress appraisals, self-regulation, and behavior." *Academy of Management Journal* 62, no. 2 (2019): 531-552.
29. S.H.Soroya, A.Farooq, K.Mahmood, J.Isoaho, and S.E. Zara. "From information seeking to information avoidance: Understanding the health information behavior during a globalhealth crisis." *Information processing & management* 58, no. 2 (2021): 102440.
30. M.P.Sy, P.Bontje, N.Ohshima, and N.Kiepek. "Articulating the form, function, and meaning of drug using in the Philippines from the lens of morality and work ethics." *Journal of Occupational Science* 27, no. 1 (2020): 12-21.
31. K.A.Demir, G.Döven, and B.Sezen. "Industry 5.0 and human-robot co-working." *Procedia computer science* 158 (2019): 688-695.
32. S.Turale, C.Meechamnan, and W.Kunaviktikul. "Challenging times: ethics, nursing and the COVID-19 pandemic." *International Nursing Review* 67, no. 2 (2020): 164-167.
33. C.Lasch. "The culture of narcissism." In *American Social Character*, pp. 241-267. Routledge, 2019.
34. S.A.Webb. "Social work in a risk society." In *Social Work*, pp. 74-78. Routledge, 2023.

35. F.Longo, A.Padovano, and S.Umbrello. "Value-oriented and ethical technology engineering in industry 5.0: A human-centric perspective for the design of the factory of the future." *Applied Sciences* 10, no. 12 (2020): 4182.
36. Z.Wang, and H.Xu. "When and for whom ethical leadership is more effective in eliciting work meaningfulness and positive attitudes: The moderating roles of core self-evaluation and perceived organizational support." *Journal of Business Ethics* 156 (2019): 919-940.
37. M.I.Nasution, M.Fahmi, and M.A. Prayogi. "The quality of small and medium enterprises performance using the structural equation model-part least square (SEM-PLS)." In *Journal of Physics: Conference Series*, vol. 1477, no. 5. IOP Publishing, (2020). p. 052052.
38. A.Werdhiastutie, F.Suhariadi, and S.G. Partiw. "Achievement motivation as antecedents of quality improvement of organizational human resources." *Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Volume 3* (2020): 747-752.
39. E.G.Epstein, P.B. Whitehead, C.Prompahakul, L.R. Thacker, and A.B. Hamric. "Enhancing understanding of moral distress: the measure of moral distress for health care professionals." *AJOB empirical bioethics* 10, no. 2 (2019): 113-124.
40. T.Hagendorff. "The ethics of AI ethics: An evaluation of guidelines." *Minds and machines* 30, no. 1 (2020): 99-120.
41. S.Banks, T.Cai, E.De Jonge, J.Shears, M.Shum, A.M. Sobočan, K.Strom, R.Truell, M.JesúsÚriz, and M.Weinberg. "Practising ethically during COVID-19: Social work challenges and responses." *International Social Work* 63, no. 5 (2020): 569-583.
42. J.F.McVea, and R. E.Freeman. "A names-and-faces approach to stakeholder management: How focusing on stakeholders as individuals can bring ethics and entrepreneurial strategy together." In *R. Edward Freeman's Selected Works on Stakeholder Theory and Business Ethics*. Cham: Springer International Publishing, (2023), pp. 197-215.
43. J.Saltz, M.Skirpan, C.Fiesler, M.Gorelick, T.Yeh, R.Heckman, Neil Dewar, and Nathan Beard. "Integrating ethics within machine learning courses." *ACM Transactions on Computing Education (TOCE)* 19, no. 4 (2019): 1-26.
44. C.Fuchs. "The ethics of the digital commons." *Journal of Media Ethics* 35, no. 2 (2020): 112-126.
45. J.Harris. "Moral enhancement and freedom." In *The Ethics of Sports Technologies and Human Enhancement*. Routledge, (2020). pp. 399-408.
46. L.Floridi, J.Cowls, M.Beltrametti, R.Chatila, P.Chazerand, V.Dignum, C.Luetge et al. "An ethical framework for a good AI society: Opportunities, risks, principles, and

- recommendations." *Ethics, governance, and policies in artificial intelligence* (2021): 19-39.
47. D.C.Orazi, J.Chen, and E.Y. Chan. "To erect temples to virtue: Effects of state mindfulness on other-focused ethical behaviors." *Journal of Business Ethics* 169, no. 4 (2021): 785-798.
 48. S.K.Singh, J.Chen, M.D.Giudice, and A.El-Kassar. "Environmental ethics, environmental performance, and competitive advantage: Role of environmental training." *Technological Forecasting and Social Change* 146 (2019): 203-211.
 49. J.W.Navalta, W.J. Stone, and T. S. Lyons. "Ethical issues relating to scientific discovery in exercise science." *International journal of exercise science* 12, no. 1 (2019): 1.
 50. L.Rosenbaum. "Facing Covid-19 in Italy—ethics, logistics, and therapeutics on the epidemic's front line." *New England Journal of Medicine* 382, no. 20 (2020): 1873-1875.
 51. D.Harvey. "The condition of postmodernity." In *The New social theory reader*, pp. 235-242. Routledge, 2020.
 52. B.Mittelstadt. "Principles alone cannot guarantee ethical AI." *Nature machine intelligence* 1, no. 11 (2019): 501-507.
 53. M.Zimmer. "'But the data is already public': on the ethics of research in Facebook." In *The ethics of information technologies*. Routledge, (2020). pp. 229-241.
 54. A.Tsamados, N.Aggarwal, J.Cowls, J.Morley, H.Roberts, M.Taddeo, and L.Floridi. "The ethics of algorithms: key problems and solutions." *Ethics, Governance, and Policies in Artificial Intelligence* (2021): 97-123.
 55. S.vonHaehling, J.E. Morley, A. JS Coats, and S.D. Anker. "Ethical guidelines for publishing in the Journal of Cachexia, Sarcopenia and Muscle: update 2019." *Journal of Cachexia, Sarcopenia and Muscle* 10, no. 5 (2019): 1143-1145.
 56. I.Pancasila, S.Haryono, and B. A. Sulistyono. "Effects of work motivation and leadership toward work satisfaction and employee performance: Evidence from Indonesia." *The Journal of Asian Finance, Economics and Business* 7, no. 6 (2020): 387-397.
 57. G.Sevinc, and S.W. Lazar. "How does mindfulness training improve moral cognition: a theoretical and experimental framework for the study of embodied ethics." *Current opinion in psychology* 28 (2019): 268-272.
 58. K.Martin. "Ethical implications and accountability of algorithms." *Journal of business ethics* 160 (2019): 835-850.
 59. R.E.Freeman. "The politics of stakeholder theory: Some future directions." In *R. Edward Freeman's Selected Works on Stakeholder Theory and Business Ethics*. Cham: Springer International Publishing, (2023). pp. 119-132.
 60. J.Brett, K.Behfar, and M.Kern. "Managing multicultural teams." In *Organizational Collaboration*. Routledge, (2020). pp. 155-164.

61. K.M.Kniffin, J.Narayanan, F.Anseel, J.Antonakis, S.P. Ashford, A.B. Bakker, P.Bamberger et al. "COVID-19 and the workplace: Implications, issues, and insights for future research and action." *American psychologist* 76, no. 1 (2021): 63.
62. Y.Wu, J.Wang, C.Luo, S.Hu, X.Lin, A.E. Anderson, E.Bruera, X.Yang, S.Weil, and Y.Qian. "A comparison of burnout frequency among oncology physicians and nurses working on the frontline and usual wards during the COVID-19 epidemic in Wuhan, China." *Journal of pain and symptom management* 60, no. 1 (2020): e60-e65.
63. K.N.Tang. "The importance of soft skills acquisition by teachers in higher education institutions." *Kasetsart Journal of Social Sciences* 41, no. 1 (2020): 22-27.
64. L.Waizenegger, B.McKenna, W.Cai, and T.Bendz. "An affordance perspective of team collaboration and enforced working from home during COVID-19." *European Journal of Information Systems* 29, no. 4 (2020): 429-442.
65. M.Berg-Weger, and J.E. Morley. "Loneliness and social isolation in older adults during the COVID-19 pandemic: Implications for gerontological social work." *The journal of nutrition, health & aging* 24 (2020): 456-458.
66. L.Lipponen. "Exploring foundations for computer-supported collaborative learning." In *Computer support for collaborative learning*. Routledge,(2023). pp. 72-81.
67. A.H.Nassar, N.K. Zern, L.K. McIntyre, D.Lynge, C.A. Smith, R.P. Petersen, K.D. Horvath, and D.E. Wood. "Emergency restructuring of a general surgery residency program during the coronavirus disease 2019 pandemic: the University of Washington experience." *JAMA surgery* 155, no. 7 (2020): 624-627.
68. S.Bartsch, E.Weber, M.Büttgen, and A.Huber. "Leadership matters in crisis-induced digital transformation: how to lead service employees effectively during the COVID-19 pandemic." *Journal of Service Management* 32, no. 1 (2020): 71-85.
69. C.W.Rudolph, B.Allan, M.Clark, G.Hertel, A.Hirschi, F.Kunze, K.Shockley, Mindy Shoss, Sabine Sonnentag, and Hannes Zacher. "Pandemics: Implications for research and practice in industrial and organizational psychology." *Industrial and Organizational Psychology* 14, no. 1-2 (2021): 1-35.
70. I.Aggarwal, and A.W. Woolley. "Team creativity, cognition, and cognitive style diversity." *Management Science* 65, no. 4 (2019): 1586-1599.
71. D.K.Chu, E.A. Akl, S.Duda, K.Solo, S.Yaacoub, and H.J. Schünemann. "COVID-19 Systematic Urgent Review Group Effort (SURGE) study authors. Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis." *Lancet* 395, no. 10242 (2020): 1973-1987.
72. S.Amershi, A.Begel, C.Bird, R.DeLine, H.Gall, E.Kamar, N.Nagappan, B.Nushi, and T.Zimmermann. "Software engineering for machine learning: A case study." In *2019 IEEE/ACM 41st International Conference on Software Engineering: Software Engineering in Practice (ICSE-SEIP)*. IEEE, (2019). pp. 291-300.
73. A.C.Spyropoulos, J.H. Levy, W.Ageno, J.M. Connors, B.J. Hunt, T.Iba, M.Levi et al. "Scientific and standardization committee communication: clinical guidance on the

- diagnosis, prevention, and treatment of venous thromboembolism in hospitalized patients with COVID-19." *Journal of Thrombosis and Haemostasis* 18, no. 8 (2020): 1859-1865.
74. E.M.Rees, E.S. Nightingale, Y.Jafari, N.R. Waterlow, S.Clifford, C.A.B. Pearson, CMMID Working Group, Thibaut Jombart, Simon R. Procter, and Gwenan M. Knight. "COVID-19 length of hospital stay: a systematic review and data synthesis." *BMC medicine* 18 (2020): 1-22.
 75. S.Rose. "Medical student education in the time of COVID-19." *Jama* 323, no. 21 (2020): 2131-2132.
 76. X.Shen, X.Zou, X.Zhong, J.Yan, and L.Li. "Psychological stress of ICU nurses in the time of COVID-19." *Critical Care* 24 (2020): 1-3.
 77. I.T.Awidi, and M.Paynter. "The impact of a flipped classroom approach on student learning experience." *Computers & education* 128 (2019): 269-283.
 78. S.H.Ebbels, E.McCartney, V.Slonims, J.E. Dockrell, and C.F. Norbury. "Evidence-based pathways to intervention for children with language disorders." *International journal of language & communication disorders* 54, no. 1 (2019): 3-19.
 79. F.Contreras, E.Baykal, and G.Abid. "E-leadership and teleworking in times of COVID-19 and beyond: What we know and where do we go." *Frontiers in psychology* 11 (2020): 590271.
 80. S.Bostock, A.D. Crosswell, A.A. Prather, and A.Stepto. "Mindfulness on-the-go: Effects of a mindfulness meditation app on work stress and well-being." *Journal of occupational health psychology* 24, no. 1 (2019): 127.
 81. Z.Dörnyei, and C.Muir. "Creating a motivating classroom environment." *Second handbook of English language teaching* (2019): 719-736.
 82. C.Succi, and M.Canovi. "Soft skills to enhance graduate employability: comparing students and employers' perceptions." *Studies in higher education* 45, no. 9 (2020): 1834-1847.
 83. Q.Chen, M.Liang, Y.Li, J.Guo, D.Fei, L.Wang, L. I. He et al. "Mental health care for medical staff in China during the COVID-19 outbreak." *The Lancet Psychiatry* 7, no. 4 (2020): e15-e16.
 84. P.T.Nelson, D.W. Dickson, J.Q. Trojanowski, C.R. Jack, P.A. Boyle, K.Arfanakis, R.Rademakers et al. "Limbic-predominant age-related TDP-43 encephalopathy (LATE): consensus working group report." *Brain* 142, no. 6 (2019): 1503-1527.
 85. R.Ross, I.J. Neeland, Shizuya Yamashita, Iris Shai, Jaap Seidell, Paolo Magni, Raul D. Santos et al. "Waist circumference as a vital sign in clinical practice: a Consensus Statement from the IAS and ICCR Working Group on Visceral Obesity." *Nature Reviews Endocrinology* 16, no. 3 (2020): 177-189.

86. G.Sewell, and B.Wilkinson. "'Someone to Watch over Me': surveillance, discipline and the Just-in-Time labour process." In *Postmodern Management Theory*. Routledge, (2019). pp. 151-169
87. F.Mosele, J. Remon, J. Mateo, C. B. Westphalen, F.Barlesi, M. P. Lolkema, N. Normanno et al. "Recommendations for the use of next-generation sequencing (NGS) for patients with metastatic cancers: a report from the ESMO Precision Medicine Working Group." *Annals of Oncology* 31, no. 11 (2020): 1491-1505.
88. C.Liang-Kung, J.Woo, P.Assantachai, A.Tung-Wai , C.Ming-Yueh, K. Iijima, H.Chul Jang et al. "Asian Working Group for Sarcopenia: 2019 consensus update on sarcopenia diagnosis and treatment." *Journal of the American Medical Directors Association* 21, no. 3 (2020): 300-307.
89. Z.Zhang, and H.Peng. "Deeper and wider siamese networks for real-time visual tracking." In *Proceedings of the IEEE/CVF conference on computer vision and pattern recognition*. (2019). pp. 4591-4600.
90. A.Benevides Soares, P.R. Soares da Silva Alves, M.Eduarda de MeloJardim, C.A.Cobellas de Medeiros, and Rejane Ribeiro. "Time management in the routine of university students: results of an intervention." *CienciasPsicológicas* 17, no. 2 (2023).
91. Y.Yang, A.Schulze, A.M. Bekui, S.Elisseou, S.W. Sun, S.Hay, P.John. Moriarty, and Stephen R. Holt. "Chief resident behaviors that lead to effective morning reports, a multisite qualitative study." *BMC Medical Education* 23, no. 1 (2023): 1-8.
92. A.T.A.K.Muhammed, M.A. Sezerol, and Z. M. Altaş. "Chronic Disease Management in Primary Care: A Cross-Sectional Study in Türkiye." *Phoenix Medical Journal* 5, no. 3 (2023): 211-216.
93. R.D.Joseph, and K. Manikandan. "Time Management Competency among Higher Secondary School Students in Puducherry." *JOURNAL OF EDUCATION & PEDAGOGY*: 37.
94. B.A.Cumbie, D.C. Kutz, and M.A. Floren. "Psychological Capital and Professional Identity: A Study of Professional Business Students." *Journal of Higher Education Theory and Practice* 23, no. 16 (2023): 1-14.
95. E.M.Mercado, J.P. Bowers, and E.M. Pennello. "Stakeholders' Perceptions of Developing and Sustaining School–University Partnerships: A Multiple Case Study." *Journal of Music Teacher Education* (2023): 10570837231203018.
96. K.A.Y.A.Yeşim. "STRATEGIES FOR BREAKING THE GLASS CEILING: THE STUDY OF SCALE DEVELOPMENT." *Nişantaşı Üniversitesi Sosyal Bilimler Dergisi* 11, no. 3 (2023): 277-293.
97. G.Avlijaš. "Examining the value of Monte Carlo simulation for project time management." *Management: Journal of Sustainable Business and Management Solutions in Emerging Economies* 24, no. 1 (2019): 11-23.
98. B.Bajec. "Relationship between time perspective and time management behaviours." *psihologija* 52, no. 2 (2019): 197-215.

99. R.Gul, I.U. Tahir, and T. Batool. "Impact of teachers workload on their time management skills at university level." *Indian Journal of Economics and Business* 20, no. 3 (2021): 819-829.
100. S.Demirdağ. "Communication skills and time management as the predictors of student motivation." *International Journal of Psychology and Educational Studies* 8, no. 1 (2021): 38-50.
101. S.Heath, and B.Shine. "Teaching Techniques to Facilitate Time Management in Remote and Online Teaching." *Journal of Teaching and Learning with Technology* 10 (2021): 164-171.
102. N.Batbaatar, and G.Amin. "STUDENTS'TIME MANAGEMENT DURING ONLINE CLASS." In *International Conference Universitas Pekalongan 2021*, vol. 1, no. 1, pp. 189-194. 2021.
103. R.Baker, B.Evans, Q.Li, and B.Cung. "Does inducing students to schedule lecture watching in online classes improve their academic performance? An experimental analysis of a time management intervention." *Research in Higher Education* 60 (2019): 521-552.
104. E.Gulua, and N.Kharadze. "Impact of time management on personal development of master's degree students." *Humanities Today: Proceedings* 1, no. 1 (2022): 64-74.
105. N.Kharadze, E.Gulua, and D.Davit. "Free-Time Management among Master's Degree Students of Georgia." *Humanities Today: Proceedings* 1, no. 2 (2022): 1-14.
106. N.A.Uzir, D.Gašević, J.Jovanović, W.Matcha, L.Lisa-Angelique, and A.Fudge. "Analytics of time management and learning strategies for effective online learning in blended environments." In *Proceedings of the tenth international conference on learning analytics & knowledge*. (2020). pp. 392-401.
107. S.Ahmad, A.Batool, and A.Hussain Choudhry. "Path Relationship of Time Management and Academic Achievement of Students in Distance Learning Institutions." *Pakistan Journal of Distance and Online Learning* 5, no. 2 (2019): 191-208.
108. A.E.Stevens, C.M. Hartung, C.R. Shelton, P.A. LaCount, and A.Heaney. "The effects of a brief organization, time management, and planning intervention for at-risk college freshmen." *Evidence-Based Practice in Child and Adolescent Mental Health* 4, no. 2 (2019): 202-218.
109. M.Rakhshan, K.Rostami, E.Setoodegan, and J.Eslami. "The relationship between leadership style and time management in senior and middle nursing managers." *RevistaLatinoamericana de Hipertensión* 14, no. 1 (2019): 26-31.
110. H.Khiat. "Using automated time management enablers to improve self-regulated learning." *Active Learning in Higher Education* 23, no. 1 (2022): 3-15.
111. B.Oyartzun, F.Martin, and R.L. Moore. "Time management matters: Online faculty perceptions of helpfulness of time management strategies." *Distance Education* 41, no. 1 (2020): 106-127.

112. W.Weï-Ching. "Exploring the relationship among free-time management, leisure boredom, and internet addiction in undergraduates in Taiwan." *Psychological reports* 122, no. 5 (2019): 1651-1665.
113. J.Xu, J.Du, C.Wang, F.Liu, B.Huang, M.Zhang, and J.Xie. "Intrinsic motivation, favorability, time management, and achievement: A cross-lagged panel analysis." *Learning and Motivation* 72 (2020): 101677.
114. D.Yang, N.JS Sarma, M.F. Hyland, and R. Jayakrishnan. "Dynamic modeling and real-time management of a system of EV fast-charging stations." *Transportation Research Part C: Emerging Technologies* 128 (2021): 103186.
115. A.J.McDonald, A.Keil, A.Srivastava, P.Craufurd, A.Kishore, V.Kumar, G.Paudel et al. "Time management governs climate resilience and productivity in the coupled rice–wheat cropping systems of eastern India." *Nature Food* 3, no. 7 (2022): 542-551.
116. E.Arita. "Pengaruh learning from home, kesehatan, time management, media pembelajaran e-learning dan motivasi belajar terhadap keberhasilan belajarmahasiswa akuntansi di masa pandemi covid 19." *Jurnal Ekonomika Dan Bisnis (JEBS)* 3, no. 1 (2021): 11-20.
117. I.Chen, Z.Lee, X.Dong, J. H.Gamble, and H.Feng. "The influence of parenting style and time management tendency on internet gaming disorder among adolescents." *International Journal of Environmental Research and Public Health* 17, no. 23 (2020): 9120.
118. A.Amida, S.Algarni, and R.Stupnisky. "Testing the relationships of motivation, time management and career aspirations on graduate students' academic success." *Journal of Applied Research in Higher Education* 13, no. 5 (2021): 1305-1322.
119. R.Yan, M.F.Basheer, M.Irfan, and T.N. Rana. "Role of psychological factors in employee well-being and employee performance: an empirical evidence from Pakistan." *Revista Argentina de Clínica Psicológica* 29, no. 5 (2020): 638.
120. B.J.Ali, and G.Anwar. "An empirical study of employees' motivation and its influence job satisfaction." *Ali, BJ, & Anwar, G.(2021). An Empirical Study of Employees' Motivation and its Influence Job Satisfaction. International Journal of Engineering, Business and Management* 5, no. 2 (2021): 21-30.
121. A.Törstena, A.J. Goga, and B.Jashari. "Improving the efficiency of human resources with the use of new technologies and reorganization process." *International Journal of Research in Business and Social Science (2147-4478)* 9, no. 1 (2020): 31-38.
122. E.Yaakobi, and J.Weisberg. "Organizational citizenship behavior predicts quality, creativity, and efficiency performance: The roles of occupational and collective efficacies." *Frontiers in Psychology* 11 (2020): 758.
123. S. D. Lopes, and X.Wang. "Emotional intelligence or artificial intelligence—an employee perspective." *Journal of Hospitality Marketing & Management* 29, no. 4 (2020): 377-403.

124. M.Imran, A. W.Memon, K.Talreja, and S. A.Bhutto. "Does E-HRM Advance Employee Engagement? A Study of Commercial Bank operating in Sukkur and Khairpur District." *Indian Journal of Economics and Business* 20, no. 4 (2021): 889-903.
125. B.Ozkeser. "Impact of training on employee motivation in human resources management." *Procedia Computer Science* 158 (2019): 802-810.
126. R.Diab-Bahman, and A.Al-Enzi. "The impact of COVID-19 pandemic on conventional work settings." *International Journal of Sociology and Social Policy* 40, no. 9/10 (2020): 909-927.
127. M.A.Salahat. "Employee Empowerment, Knowledge Management and Decision-making Agility; Mediating Role of Extra-role Performance." *International Journal of Academic Research in Business and Social Sciences* 11, no. 7 (2021).
128. Realyvásquez-Vargas, Arturo, Karina Cecilia Arredondo-Soto, Jorge Luis García-Alcaraz, Bogart Yail Márquez-Lobato, and Jesrael Cruz-García. "Introduction and configuration of a collaborative robot in an assembly task as a means to decrease occupational risks and increase efficiency in a manufacturing company." *Robotics and Computer-Integrated Manufacturing* 57 (2019): 315-328.
129. G.K.Gosnell, John A. List, and Robert D. Metcalfe. "The impact of management practices on employee productivity: A field experiment with airline captains." *Journal of Political Economy* 128, no. 4 (2020): 1195-1233.
130. B.Aczel, M.Kovacs, T.Van Der Lippe, and B.Szaszi. "Researchers working from home: Benefits and challenges." *PloS one* 16, no. 3 (2021): e0249127.
131. F.Fallucchi, M.Coladangelo, R.Giuliano, and E.William De Luca. "Predicting employee attrition using machine learning techniques." *Computers* 9, no. 4 (2020): 86.
132. E.Jumady, and L. Lilla. "Antecedent and Consequence the Human Resources Management Factors on Civil Servant Performance." *Golden Ratio of Human Resource Management* 1, no. 2 (2021): 104-116.
133. E.Sugiarti, E.Finatariani, and Y.T.Rahman. "Earning Cultural Values as A Strategic Step to Improve Employee Performance." *Scientific Journal of Reflection: Economic, Accounting, Management and Business* 4, no. 1 (2021): 221-230.
134. C.Prentice, S.D. Lopes, and X. Wang. "The impact of artificial intelligence and employee service quality on customer satisfaction and loyalty." *Journal of Hospitality Marketing & Management* 29, no. 7 (2020): 739-756.
135. K.Jehanzeb. "Does perceived organizational support and employee development influence organizational citizenship behavior? Person–organization fit as moderator." *European Journal of Training and Development* 44, no. 6/7 (2020): 637-657.
136. N.P.Tran, and D. Hong Vo. "Human capital efficiency and firm performance across sectors in an emerging market." *Cogent Business & Management* 7, no. 1 (2020): 1738832.

137. D.Darmawan, R.Mardikaningsih, E. A. Sinambela, S.Arifin, A.R. Putra, M.Hariani, M.Irfan, Y.R. Al Hakim, and F.Issalillah. "The quality of human resources, job performance and employee loyalty." *International Journal of Psychosocial Rehabilitation* 24, no. 3 (2020): 2580-2592.
138. Y.Yin, Y.Wang, and Y.Lu. "Antecedents and outcomes of employee empowerment practices: A theoretical extension with empirical evidence." *Human Resource Management Journal* 29, no. 4 (2019): 564-584.
139. T.Blom, H.Kazeroony, and Y.Du Plessis. "The role of electronic human resource management in diverse workforce efficiency." *SA Journal of Human Resource Management* 17, no. 1 (2019): 1-12.
140. S.Shkarlet, M.Dubyna, K.Shtyrkhun, and L.Verbivska. "Transformation of the paradigm of the economic entities development in digital economy." *WSEAS transactions on environment and development* 16, no. 8 (2020): 413-422.
141. Q.Song, Y.Wang, Y.Chen, J.Benitez, and J.Hu. "Impact of the usage of social media in the workplace on team and employee performance." *Information & Management* 56, no. 8 (2019): 103160.
142. S.Albukhitan. "Developing digital transformation strategy for manufacturing." *Procedia computer science* 170 (2020): 664-671.
143. J.Cherian, V.Gaikar, R.Paul, and R.Pech. "Corporate culture and its impact on employees' attitude, performance, productivity, and behavior: An investigative analysis from selected organizations of the United Arab Emirates (UAE)." *Journal of Open Innovation: Technology, Market, and Complexity* 7, no. 1 (2021): 45.
144. S.Vahdat. "The role of IT-based technologies on the management of human resources in the COVID-19 era." *Kybernetes* 51, no. 6 (2022): 2065-2088.
145. T.Budur, and M.Poturak. "Employee performance and customer loyalty: Mediation effect of customer satisfaction." *Middle East Journal of Management* 8, no. 5 (2021): 453-474.
146. A.AlHamad, M.Alshurideh, K.Alomari, B. Kurdi, H.Alzoubi, S.Hamouche, and S.Al-Hawary. "The effect of electronic human resources management on organizational health of telecommunications companies in Jordan." *International Journal of Data and Network Science* 6, no. 2 (2022): 429-438.
147. E.Partovi, and R.Matousek. "Bank efficiency and non-performing loans: Evidence from Turkey." *Research in international Business and Finance* 48 (2019): 287-309.
148. Y.Bilan, H.Mishchuk, I.Roshchyk, and O.Joshi. "Hiring and retaining skilled employees in SMEs: problems in human resource practices and links with organizational success." *Business: Theory and Practice* 21, no. 2 (2020): 780-791.

Chapter Three

Methodology

This chapter is concerned with the overall approach and procedure to the entire process of this study. It includes the research methods which Many researchers is the general plan of how the research questions will be answered, research design, study population, sample size, sampling procedures, the research sample frame, sources of data collection, research instruments and methods for analyzing the collected data. Hence, this chapter focused on how to provide solutions to the research problems and how answers could be provided to the research questions raised.

3.1 Research Design

A research design is an arrangement of conditions or collections¹. Survey design was adopted in carrying out this research. The survey design as a quantitative approach was used to determine the relationships between the independent variables and dependent variables of this research.

3.2 Population of the Study

The population of this study consisted of Seven Thousand Four Hundred and ninety (7490) middle skilled construction workers in selected LGAs in Lagos state. The table below gives the summary of the population which includes:

Table 3.1. Population of Construction-Site Workers in the Selected LGAs in Lagos State.

S/N	Name of LGA	Estimated Population of Construction Workers	No of Samples
1	Lagos Island	441	38
2	Lagos Mainland	2583	114
3	Surulere,	339	25
4	Apapa	381	27
5	Eti-Osa	3746	247
Total		7490	451

Source: Researchers Compilation, 2022.

Middle skilled construction worker in Selected LGAs in Lagos State were selected purposely based on the foregoing criteria:

1. Selected LGAs in Lagos State is a developing state with quite a number of experienced Construction workers.
2. They have engaged in one or more training programs in the course of their work.

3.3 Sample and Sampling Techniques

Sample was drawn from the mentioned population above. Sampling technique that was used for the method is the Simple Random Sampling Techniques (SRST). It is a probabilistic sampling technique which allows for all elements in a sample to have equal

chances of selection. To determine the sample size, this study used Taro Yamane Sample size determination formula².

$$n = \frac{N}{1 + N(e)^2}$$

Where, n = sample size

N = population

e = 5% level of significance

Given; N = 7490, e = 0.05 at 5% level of significance

$$n = \frac{7490}{1 + 7490(0.05)^2}$$

$$n = \frac{7490}{1 + 7490(0.0025)}$$

$$n = \frac{7490}{1 + 15.6225}$$

$$n = \frac{7490}{16.6225}$$

$$n = 451 \text{ respondents}$$

Therefore, an exact sample size of 451 respondents will be used to conduct the research.

3.4 Description of Research Instrument

The main research instrument for this study was a questionnaire. Hence, data was gathered through the use of self-administered questionnaires. The questionnaires were administered to middle skilled Construction workers in the Selected LGAs in Lagos State, in order to generate adequate and valid information that accounted for the success of this study. The questionnaires contained two sections; section A and section B. Section A includes the questions in line with the socio-economic characteristics and demographic variables of respondents. However, section B contained questions pertaining to the objectives of the study. In order to test the objectives of the study the five-point Likert

scale of strongly agree, agree, undecided, disagreed and strongly disagree and the five-point Likert scale of never, seldom, sometimes, often and always were used.

3.5 Reliability of Research Instrument

In order to ensure the questionnaire's accuracy, the researcher conducted a series of reliability tests. Both the internal consistency technique of reliability testing and the composite reliability testing were performed on the variables (behavioural pattern and efficiency measures). By gauging how consistently people respond within a given scale, internal consistency can be used to verify a measure's credibility. Cronbach's alpha coefficient is commonly used to evaluate this internal consistency, and it may be used to multiple-item measuring instruments (like the one used in this study). A questionnaire is considered to be reliable if its Cronbach's alpha score is greater than 0.7 and less than 1. For revalidation purposes, the instrument's dependability is assessed using the composite reliability. All of the study's variables' reliability statistics are shown in Table 3.3.

Table 3.2: Reliability Statistic

Variables	Composite Reliability	Cronbach's alpha coefficient
Work ethics	0.757	0.764
Integrity	0.784	0.726
Sense of responsibility	0.767	0.773
Self-discipline	0.820	0.805
Team work	0.700	0.753
Time management	0.783	0.729
Productivity Test	0.771	0.707

Source: Computed from pilot study (2022)

3.6 Validity of Research Instrument

As a pilot study, we looked at construction sites in Ibadan because they are so comparable to those to be examined in Lagos State. For the analysis, researchers selected 45 participants at random, or 10% of the total. As a result, forty-two (42) surveys were sent out. Convenience sampling was utilized to recruit participants from inside Ibadan. After the questionnaires were retrieved and sorted, 38 out of the total were found to be complete and usable.

Participants in the pilot study did not have any complaints regarding the length of the questions, but they did suggest that the questionnaire be written in plain English so that everyone could understand it and reply to it. Validity and reliability of the instrument for the planned investigation were confirmed by the pilot study. The validity and reliability of the instrument are supported by the results of the Average variable explained (AVE), Composite reliability (CR), and Cronbach's Alpha (CA) coefficient.

Criterion, content, and concept validity were used to validate the study tools. The supervisor and other senior academic members in the department of management and accounting at Lead City University Lagos State, as well as the opinion of practitioners who took part in the pilot project, validated the instruments for criterion and content validity. Their input were used to fine-tune the main study's questionnaire in light of previous research on how each variable was measured. Due to the pilot study, we were able to pre-test the instruments to ensure their construct validity.

To determine the reliability and validity of the instrument as a whole, the researcher used confirmatory factor analysis (CFA). The Average Variance Extracted was calculated by extracting factor loadings from the rotated component matrix using the Varimax Extraction Method (AVE). Therefore, evidence of construct validity for each measured

variable was supplied by an AVE more than 0.5 and by a discriminate validity value for all the construct below 1.00 on the Heterotrait-Monotrait (HTMT) criterion. There was proof of concept validity across the board thanks to high AVE and discriminant validity estimates. The construct validity of these questionnaire items was summarized in Tables 3.1 and 3.2.

Table 3.3: Summary of Pilot Test Incorporating Construct Validity Test.

Variable	AVE	Remark
Work ethics	0.570	Reliable
Integrity	0.557	Reliable
Sense of responsibility	0.586	Reliable
Self-discipline	0.597	Reliable
Team work	0.593	Reliable
Time management	0.555	Remark
Productivity Test	0.529	Reliable

Source: Computed from Pilot study, (2022)

As can be seen in Table 3.1 above, all of the reflective constructs' AVE values are greater than 0.5, suggesting that their convergent validity has been established. The reflective constructs' discriminant validity was also evaluated using the HTMT criterion. The HTMT criterion, which some scholars say is a suitable method for establishing discriminant validity because it measures average correlations between indicators of different constructs, is one example⁴. A researcher proposed that discriminant validity amongst reflective constructs is established if and only if the HTMT values for all the reflective constructs are less than 0.90. Criteria for HTMT were calculated using SmartPLS statistical platform version 3.3.3 and were displayed in Table 3.2.

Table 3.4: Discriminant Validity using Heterotrait-Monotrait Ratio (HTMT)

Construct	WE	IY	SR	SD	TW	TM	PT
Work ethics							
Integrity	0.236						
Sense of responsibility	0.231	0.227					
Self-discipline	0.748	0.264	0.676				
Team work	0.318	0.540	0.220	0.639			
Time management	0.537	0.545	0.459	0.755	0.710		
Productivity Test	0.276	0.865	0.259	0.490	0.040	0.830	

Source: Computed from Pilot Study, (2022)

In concomitance with a study on threshold for establishing discriminant validity, all the construct in table 3.4 above had a HTMT values below 1.00 to suggest that discriminant validity has been established for all the reflective constructs in this study. Scholars have emphasized that both convergent validity (through AVE) and discriminant validity (through HTMT criterion) are important measures of construct validity⁵.

3.7 Administration and Method of Data Collection

The research instrument was self-administered. The researcher met with the respondents and explained the purpose of the study to them so as to seek their permission to participate in the study. The participants were told that the research was being carried out for academic purposes and that no information they gave was disclosed or used against them. To back up the assurance, the respondents' were given anonymity by telling them not to include their names or any personal information on the questionnaire. Copies of

questionnaire was given to the respondents after creating a rapport with them. They were told to input their response to the questions therein, and that there are no wrong or right answer(s). The researcher ensured that the questionnaires were properly filled and completed before returning them. Sufficient time was given to the respondents to read the questionnaire contents and ask questions whenever they find something not properly understood. The copies of the questionnaire were collected after filling and scored according to the manual of scale.

Any participants shall not be coerced or forced to involve in this study. Participants have rights to withdraw from the study at any stage if they wish to do so. Utmost care shall be taken in order to ensure that the participants shall not be subjected to any injury in this study by making sure that the research environment be safe. Priority shall be given to respect for the dignity of research participants including the research assistants who would double as the coaches of the clubs put to use. Consent of the research assistants shall also be sought to voluntarily assist the researcher in executing the training programmes. Full participating consent shall be obtained from all the participants prior to the commencement of the study. The privacy of the participants in this research study shall also be ensured. Provision of adequate level of confidentiality of the research data should be also be guaranteed. There shall be guarantee of anonymity of participants and the management staff of organisations participating in the research.

There shall be strict avoidance of any deception or exaggeration about the aims and objectives of the research study. Conflict of interest, sources of funding, affiliations of any kind, if any, shall be declared before the commencement of the study. All form of communication in relation to the research study shall be done with rectitude. There shall not be any type of misleading information, wrong or misrepresentation of primary data

findings in a biased or dubious manner in the study. The researcher shall provide sufficient evidence and declarations about taking part in the study to allow individual participant to understand the consequences of partaking and to agree to a fully informed decision about participating without the use of force. A copy of the consent form shall be filled by individual participant.

3.8 Method of Data Analysis

The study opted for descriptive and analytical research design for attaining outcomes. SPSS version 20 was used to analyze the collected data. The study employed the use of descriptive statistics. Specifically, the respondents' demographic information was analyzed using the descriptive statistics to determine the mean, frequency distribution and the percentage result of the research work. Also the major techniques that was used to test the hypotheses is Pearson correlation and regression analysis to determine the Behavioral Pattern and Efficiency of Construction workers in the Selected LGAs in Lagos State. For ease of analysis and computation, the Statistical Package for Service Solution (SPSS) was used for the analysis.

Endnotes

1. Y.Yang, A.Schulze, A.M. Bekui, S.Elisseou, S.W. Sun, S.Hay, P.John. Moriarty, and Stephen R. Holt. "Chief resident behaviors that lead to effective morning reports, a multisite qualitative study." *BMC Medical Education* 23, no. 1 (2023): 1-8.
2. W.R.Griffin , M.P.Jean , and S. M. Gully. *Organizational behavior: Managing people and organizations*. CENGAGE learning, 2020.
3. W.W.Fisher, C.C. Piazza, and H.S. Roane, eds. *Handbook of applied behavior analysis*. Guilford Publications, 2021.
4. J.P.Allegrante, M.T. Wells, and J.C. Peterson. "Interventions to support behavioral self-management of chronic diseases." *Annual review of public health* 40 (2019): 127-146.
5. O.M.Ababneh. "How do green HRM practices affect employees' green behaviors? The role of employee engagement and personality attributes." *Journal of Environmental Planning and Management* 64, no. 7 (2021): 1204-1226.
6. H.Kirk. "Prediction versus management models relevant to risk assessment: The importance of legal decision-making context." *Clinical Forensic Psychology and Law* (2019): 347-359.
7. B.Bajec. "Relationship between time perspective and time management behaviours." *psihologija* 52, no. 2 (2019): 197-215.
8. R.Gul, I.U. Tahir, and T. Batool. "Impact of teachers workload on their time management skills at university level." *Indian Journal of Economics and Business* 20, no. 3 (2021): 819-829.
9. S.Heath, and B.Shine. "Teaching Techniques to Facilitate Time Management in Remote and Online Teaching." *Journal of Teaching and Learning with Technology* 10 (2021): 164-171.
10. N.A.Uzir, D.Gašević, J.Jovanović, W.Matcha, L.Lisa-Angelique, and A.Fudge. "Analytics of time management and learning strategies for effective online learning in blended environments." In *Proceedings of the tenth international conference on learning analytics & knowledge*. (2020). pp. 392-401.

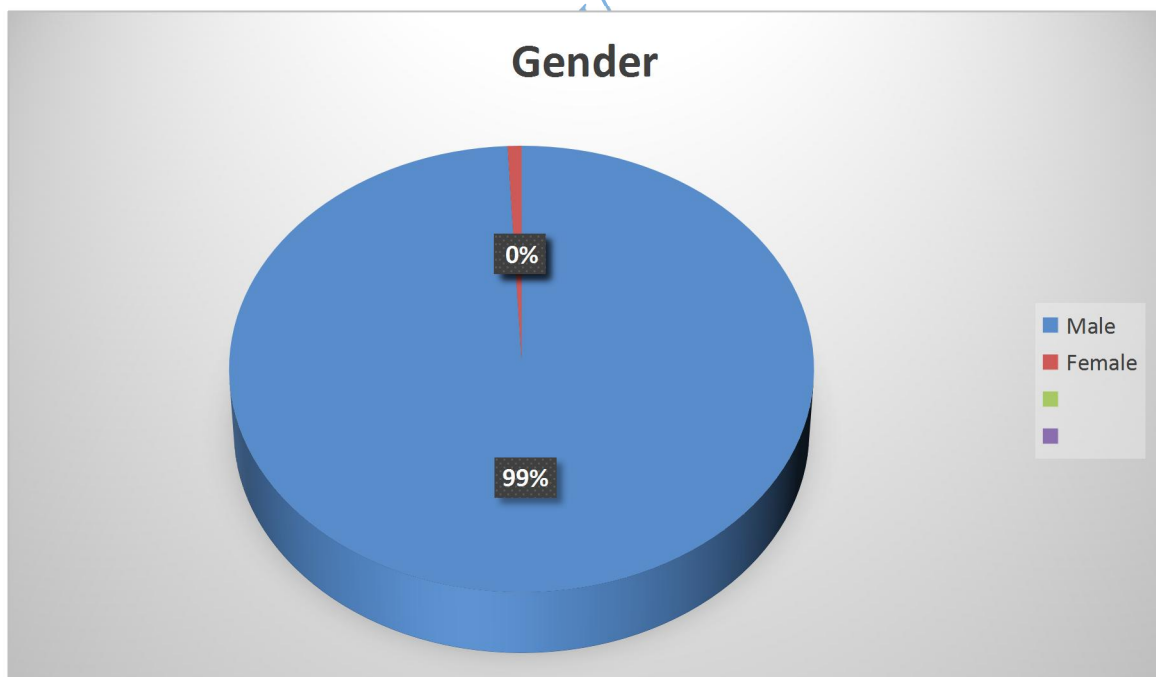
Chapter Four

Results and Discussion of Findings

This chapter presents results of gathered data on the influence of behavioral pattern, efficiency and time-management of middle-skilled construction workers in selected LGAs in Lagos State. The chapter presented the data gotten from respondents that took part in the study. Three research questions were answered and one hypothesis was tested using multiple regression analysis and t-test for independent samples. A total of four hundred and fifty (450) copies of the questionnaire were administered and the entire four hundred (400) copies of the questionnaire were retrieved, giving a 92% return rate.

4.1 Demographic Data

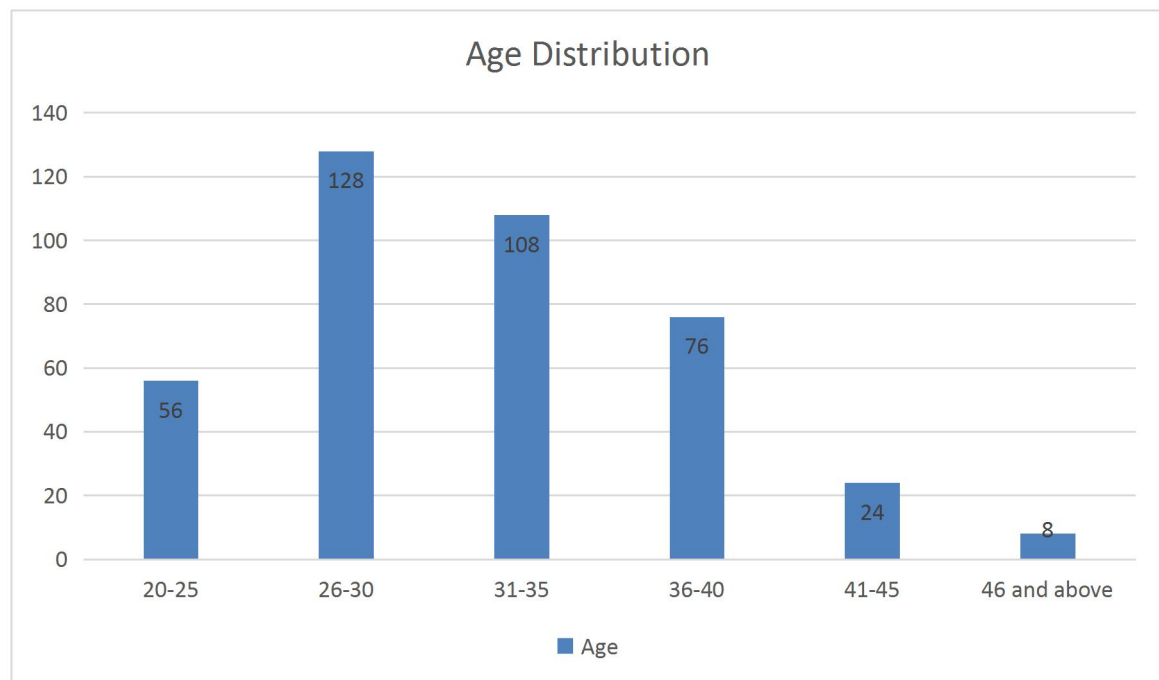
Figure 4.1: Gender Distribution of the Respondents



Source: Researcher's Fieldwork 2023

The figure above showed the gender distribution of the respondents that participated in this study. From the chart above, it can be seen that male were the highest with a total of about 400 (100%). There were no female participants for this study.

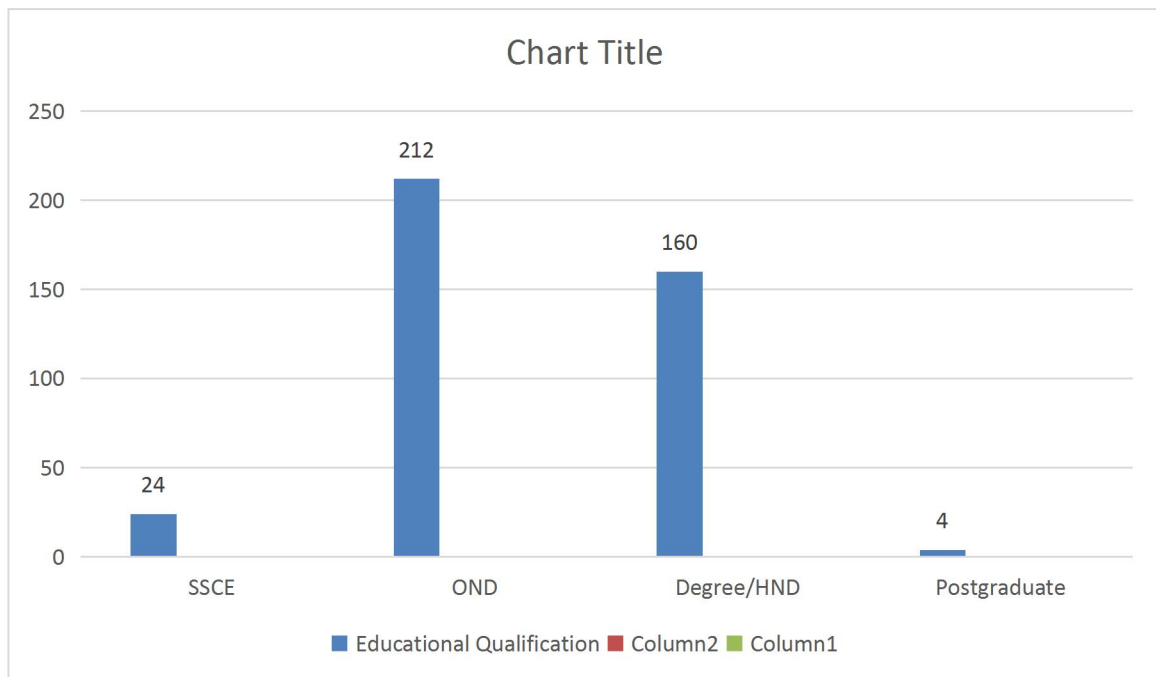
Figure 4.2: Age Distribution of the Respondents



Source: Researcher's Fieldwork 2023

The chart above shows the age distribution of the respondents for this study. From the chart, it was discovered that the age range of 20-25 years had 56 (14%), this was followed by 26-30 years with 128 (32%), 31-35 years had 108 (29%), 36-40 years 76 (19%), 41-45 years recorded 24 (6%) while 46 and above recorded 8 (2%). This result implied that the age range with the highest number of respondents with was 26-30 years with 128 (32%), this was followed by the age range 31-35 years with a total of 108 (29%), and was followed by 36-40 years with 76 (19%), 20-25 years had 56 (14%), 41-45 years recorded 24 (6%), while 46 and above recorded the lowest count with 8 (2%).

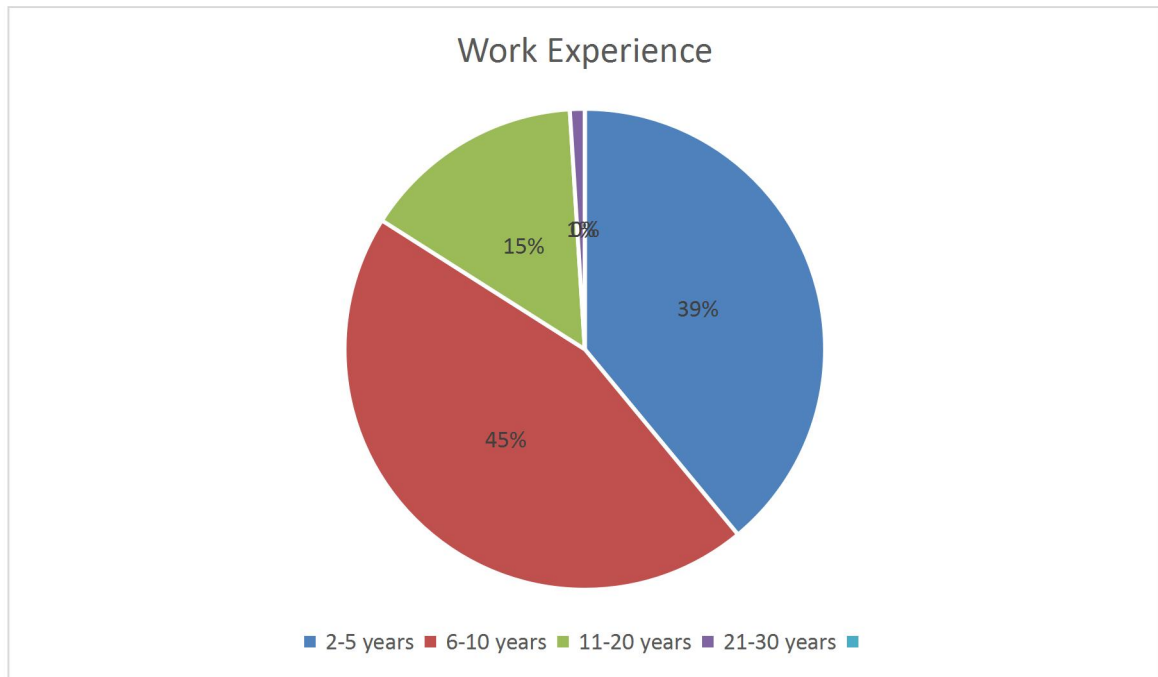
Figure 4.3: Educational Qualification



Source: Researcher's Fieldwork 2023

The chart above showed the distribution of the respondents according to their educational qualification. From the chart above, it could be seen that OND had the highest count with 212 (53%). This was followed by Degree/HND with 160 (40%), this was followed by SSCE 24 (6%) of the total number of the respondent and finally, Postgraduate had a total of 4 (1%) of the respondents.

Figure 4.4: Years of Respondent's Work Experience



Source: Researcher's Fieldwork 2023

The chart above shows the Years of Respondent's Work Experience of the respondents for this study. From the chart, it was discovered that the range of 6-10 years' work experience was the highest with 180 (45%), also, 2-5 years' work experience had 156 (39%), this was followed by 11-20 years working experience with 60 (15%), while 21-30 years had 4 (1%).

4.2 Analysis of Research Questions

Table 4.1 Descriptive Analysis of Responses on Behavioural Pattern

Behavioural pattern	SA	A	D	SD	MEAN
I maintain a very good work ethics on site at all times	240 (60.0%)	92 (23.0%)	44 (11.0%)	24 (6.0%)	3.37
I use all the necessary safety equipment to do my job	156 (39.0%)	112 (28.0%)	112 (28.0%)	20 (5.0%)	3.01
I use the correct procedures for carrying out my job	151 (37.8%)	170 (42.5%)	49 (12.3%)	30 (7.5%)	3.11
I maintain self-discipline at all times on site.	104 (26.0%)	180 (45.0%)	116 (29.0%)	-	2.97
I ensure that quality standard is used throughout the entire project.	48 (12.0%)	228 (57.0%)	112 (28.0%)	12 (3.0%)	2.78
I am responsible for making sure that the project is successful.	100 (25.0%)	120 (30.0%)	132 (33.0%)	48 (12.9%)	2.68
I believe that working together as a team will make projects better.	84 (21.0%)	140 (35.0%)	140 (35.0%)	36 (9.0%)	2.68
I am always cooperating with other workers on site	88 (22.0%)	76 (19.0%)	132 (33.0%)	104 (26.0%)	2.37
Weighted mean					2.87

Source: Field Survey Results (2023)

According to results in Table 4.1. 60.0% of the respondents strongly agree that they maintain a very good work ethics on site at all times, 23.0% agree, 11.0% disagree, and 6.0% strongly disagree. On average, the respondents indicated that they maintain a very good work ethics on site at all times has a mean of 3.37. Results also indicated that 39.0% of the respondents strongly agree that they use all the necessary safety equipment to do their job, 28.0% agree, 28.0% disagree, and 5.0% strongly disagree. On average, the respondents indicated that they use all the necessary safety equipment to do their job has a mean of 3.01. Results also indicated that 37.8% of the respondents strongly agree that they use the correct procedures for carrying out their job, 42.5% agree, 12.3% disagree, and 7.5% strongly disagree. On average, the respondents, indicated that they use the correct procedures for carrying out their job has a mean of 3.11.

Results also indicated that 26.0% of the respondents strongly agree that they maintain self-discipline at all times on site, 45.0% agree, and 29.0% disagree. On average, the respondents indicated that they maintain self-discipline at all times on site has a mean of 2.97. Results also indicated that 12.0% of the respondents strongly agree that they ensure that quality standard is used throughout the entire project, 57.0% agree, 28.0% disagree, and 3.0% strongly disagree. On average, the respondents indicated that they ensure that quality standard is used throughout the entire project has a mean of 2.78. Results also indicated that 25.0% of the respondents strongly agree that they are responsible for making sure that the project is successful, 57.0% agree, 28.0% disagree, and 3.0% strongly disagree. On average, the respondents indicated that they are responsible for making sure that the project is successful has a mean of 2.68. Results also indicated that 21.0% of the respondents strongly agree that they believe that working together as a team will make projects better, 35.0% agree, 35.0% disagree, and 9.0% strongly disagree. On average, the respondents indicated that they believe that working together as a team will

make projects better has a mean of 2.68. Results also indicated that 22.0% of the respondents strongly agree that they are always cooperating with other workers on site, 19.0% agree, 33.0% disagree, and 26.0% strongly disagree. On average, the respondents indicated that they are always cooperating with other workers on site has a mean of 2.37.

Table 4.2: Descriptive Analysis of Responses on Efficiency

Efficiency	A	O	SM	SD	N	Mean
There is the required Manpower on site.	195 (48.5%)	93 (23.3%)	13 (3.3%)	12 (3.0%)	32 (8.0%)	4.43
The labourers on site have the needed skill.	168 (42.0%)	127 (31.8%)	89 (22.3%)	16 (4.0%)	-	4.12
Procurement of materials are carried out as planned.	104 (26.0%)	188 (47.0%)	92 (23.0%)	16 (4.0%)	-	3.95
We have an adequate material and quality control strategy	136 (34.0%)	148 (37.0%)	80 (20.0%)	36 (9.0%)	-	3.96
There is an efficient co-	192 (48.0%)	104 (26.0%)	40 (10.0%)	28 (7.0%)	36 (9.0%)	3.97

ordination of materials)))			
There is an efficient organisation of machinery on-site.	84 (21.0%))	184 (46.0%))	92 (23.0%))	40 (10.0%))	-	3.78
There are labour motivation strategies used on site.	224 (56.0%))	156 (39.0%))	8 (2.0%)	12 (3.0%)	-	4.48
There is a risk assessment and quantificatio n plan on site	180 (45.0%))	124 (31.0%))	48 (12.0%))	32 (8.0%)	16 (4.0%)	4.05
There is an Integrated procurement plan of all materials needed on site.	136 (34.0%))	180 (45.0%))	84 (21.0%))	-	-	4.13
I evaluates daily schedule	176 (44.0%))	156 (29.0%))	68 (17.0%))	-	-	4.27

We are allowed to give feedback on site.	48 (12.0%))	48 (12.0%))	60 (15.0%))	172 (43.0%))	72 (18.0%))	2.57
We have short-term goals to achieve	124 (31.0%))	148 (37.0%))	128 (32.0%))	-	-	3.99
There is a daily schedule of time.	164 (41.0%))	112 (28.0%))	76 (19.0%))	48 (12.0%))	-	3.98
Our productivity level is always appraised on a daily basis.	100 (25.0%))	56 (14.0%))	140 (35.0%))	80 (20.0%))	-	3.32
Weighted Mean						3.93

Source: Field Survey Results (2023)

According to results in Table 4.2, 48.5% of the respondents always require manpower on site, 23.3% often, 3.3% sometimes, 3.0% seldom, and 8.0% never. On average, the respondents indicated that they required manpower on site has a mean of 4.43. Results also indicated that 42.0% of the respondents always agree that labourers on site have the needed skill, 31.8% often, 22.3% sometimes, and 4.0% seldom. On average, the respondents indicated that labourers on site have the needed skill has a mean of 4.12.

Results also indicated that 26.0% of the respondents always agree that procurement of materials are carried out as planned, 47.0% often, 23.0% sometimes, and 4.0% seldom. On average, the respondents indicated that procurement of materials are carried out as planned has a mean of 3.95.

Results also indicated that 34.0% of the respondents always agree that they have an adequate material and quality control strategy, 37.0% often, 20.0% sometimes, and 9.0% seldom. On average, the respondents indicated that they have an adequate material and quality control strategy has a mean of 3.96. Results also indicated that 48.0% of the respondents always agree that there is an efficient co-ordination of materials, 26.0% often, 10.0% sometimes, 7.0% seldom, and 9.0% never. On average, the respondents indicated that there is an efficient co-ordination of materials has a mean of 3.97. Results also indicated that 21.0% of the respondents always agree that there is an efficient organisation of machinery on-site, 46.0% often, 23.0% sometimes, and 10.0% seldom. On average, the respondents indicated that there is an efficient organisation of machinery on-site has a mean of 3.78.

Results also indicated that 56.0% of the respondents always agree that there are labour motivation strategies used on site, 39.0% often, 2.0% sometimes, and 3.0% seldom. On average, the respondents indicated that there are labour motivation strategies used on site has a mean of 4.48. Results also indicated that 45.0% of the respondents always agree that there is a risk assessment and quantification plan on site, 31.0% often, 12.0% sometimes, 8.0% seldom, and 4.0% never. On average, the respondents indicated that there is a risk assessment and quantification plan on site has a mean of 4.05. Results also indicated that 34.0% of the respondents always agree that there is an integrated procurement plan of all materials needed on site, 45.0% often, and 21.0% sometimes. On average, the respondents indicated that there is an integrated procurement plan of all materials needed

on site has a mean of 4.13. Results also indicated that 44.0% of the respondents always agree that they evaluate daily schedule, 39.0% often, and 17.0% sometimes. On average, the respondents indicated that their evaluation of daily schedule has a mean of 4.27.

Results also indicated that 12.0% of the respondents always agree that they are allowed to give feedback on site, 12.0% often, 15.0% sometimes, 43.0% seldom, and 18.0% never. On average, the respondents indicated that they are allowed to give feedback on site has a mean of 2.57. Results also indicated that 31.0% of the respondents always agree that they have short-term goals to achieve, 37.0% often, and 32.0% sometimes. On average, the respondents indicated that they have short-term goals to achieve has a mean of 3.99. Results also indicated that 41.0% of the respondents always agree that there is a daily schedule of time, 28.0% often, 19.0% sometimes, and 12.0% seldom. On average, the respondents indicated that there is a daily schedule of time has a mean of 3.98. Results also indicated that 25.0% of the respondents always agree that their productivity level is always appraised on a daily basis, 14.0% often, 35.0% sometimes, and 20.0% seldom. On average, the respondents indicated that their productivity level is always appraised on a daily basis has a mean of 3.32.

4.2 Test of Hypothesis

H₀1: Work ethic as no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State

The null hypothesis one which states that Work ethic as no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State was tested using simple regression analysis. In the analysis, the value of work ethics was regressed on the values of efficiency. The data for work ethics (independent variable) was generated by summing responses of all items while that of efficiency (dependent) was generated by

adding responses of all items used to measure the variable. The regression test results are presented in Tables 4.3a-c

Table 4.3a-c: Summary of Regression Analysis for the effect of work ethicson efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria

a. Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.358 ^a	.128	.126	.41511		
a. Predictors: (Constant), Work ethics						
b. ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.090	1	10.090	58.553	.000 ^b
	Residual	68.584	398	.172		
	Total	78.673	399			
a. Dependent Variable: Efficiency						
b. Predictors: (Constant), Work ethics						
c. Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.522	.080		56.316	.000
	Work_ethics	.176	.023	.358	7.652	.000
a. Dependent Variable: Efficiency						

Source: Field Survey Results (2023)

Table 4.3a-c presents the results of the regression analysis for the effect of work ethics on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria. Table 4.6a presents a model summary which establishes how the model equation fits into the data. The R² was used to establish the predictive power of the study's model.

From the results, work ethics has a significantly weak relationship with efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria (R = .358^a).

The coefficient of determination (R²) of 0.128 shows that work ethics explained 12.8% of

the changes in efficiency while the remaining 87.2% variation in efficiency is explained by other exogenous variable different from those considered in this study. This result suggests that work ethics influence 12.8% of efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria. It is important to stress that the effect predicted by work ethics is positive and small.

Table 4.3b presents the results of ANOVA (overall model significance) of regression test which revealed that the work ethics has a significant influence on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria. This can be explained by the F-value (58.553) and $p=0.000$ which is statistically significant at 95% confidence interval. Furthermore, the results of regression coefficients in table 4.3c, revealed that at 95% confidence level, a unit change in work ethics will lead to a 0.176 increase in efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria, given that all other factors are held constant. On the strength of this result ($R^2= 0.128$, $F(1,398)= 58.553$, $p= 0.000$), this study reject the null hypothesis one (H_01) which state that work ethics has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria.

H₀₂: Sense of responsibility as no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State.

The null hypothesis two which states that sense of responsibility has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State was tested using simple regression analysis. In the analysis, the value of sense of responsibility was regressed on the values of efficiency. The data for sense of responsibility (independent variable) was generated by summing responses of all items

while that of efficiency (dependent) was generated by adding responses of all items used to measure the variable. The regression test results are presented in Tables 4.4a-c

Table 4.4a-c: Summary of Regression Analysis for the effect of sense of responsibility on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.281 ^a	.079	.077	.83241		
a. Predictors: (Constant), Project_Success						
ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.601	1	23.601	34.062	.000 ^b
	Residual	275.774	398	.693		
	Total	299.375	399			
a. Dependent Variable: efficiency						
b. Predictors: (Constant), Project_Success						
Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.576	.121		37.711	.000
	Project_Success	0.248	0.043	0.281	5.836	.000

a. Dependent Variable: efficiency

Source: Field Survey Results (2023)

Table 4a-c presents the results of the regression analysis for the effect of sense of responsibility on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria.

From the results, sense of responsibility has a significantly weak relationship with efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria ($R = 0.281$). The coefficient of determination (R^2) of 0.079 shows that sense of responsibility predicted 7.9% of the changes in efficiency while the remaining 921% changes in efficiency is explained by other external factor not considered in the present

study. This result suggests that sense of responsibility influence 7.9% of efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria. It is important to emphasize that the effect predicted by sense of responsibility on efficiency despite been positive, it is a small effect.

Table 4.4b presents the results of ANOVA (overall model significance) of regression test which revealed that the sense of responsibility has a significant influence on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria. This can be explained by the F-value (34.062) and $p=0.000$ which is statistically significant at 95% confidence interval. Furthermore, the results of regression coefficients in table 4.4c, revealed that at 95% confidence level, a unit change in sense of responsibility will lead to a 0.248 increase in efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria, given that all other factors are held constant. On the strength of this result ($R^2= 0.079$, $F(1,398)= 34.062$, $p= 0.000$), this study reject the null hypothesis two (H_02) which state that sense of responsibility has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria.

H₀₃: Discipline has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State

The null hypothesis three which states that self-discipline has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State was tested using simple regression analysis. In the analysis, the value of self-discipline was regressed on the values of efficiency. The data for self-discipline (independent variable) was generated by summing responses of all items while that of efficiency (dependent) was generated by adding responses of all items used to measure the variable. The regression test results are presented in Tables 4.5a-c

Table 4.5a-c: Summary of Regression Analysis for the effect of self-discipline on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.370 ^a	.137	.135	.80567		
a. Predictors: (Constant), Self_discipline						
ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.029	1	41.029	63.209	.000 ^b
	Residual	258.346	398	.649		
	Total	299.375	399			
a. Dependent Variable: efficiency						
b. Predictors: (Constant), Self_discipline						
Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.627	.166		15.788	.000
	Self_discipline	.432	.054	.370	7.950	.000

a. Dependent Variable: efficiency

Source: Field Survey Results (2023)

Table 4.5a-c presents the results of the regression analysis for the effect of self-discipline on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria.

From the results, self-discipline has a significantly weak relationship with efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria ($R = 0.370$). The coefficient of determination (R^2) of 0.137 shows that self-discipline predicted 13.7% of the changes in efficiency while the remaining 86.3% changes in efficiency is explained by other external factor not considered in the present study. This result suggests that self-

discipline influence 13.7% of efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria. It is important to emphasize that the effect predicted by self-discipline on efficiency despite been positive, it is a small effect.

Table 4.5b presents the results of ANOVA (overall model significance) of regression test which revealed that the self-discipline has a significant influence on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria. This can be explained by the F-value (63.209) and $p=0.000$ which is statistically significant at 95% confidence interval. Furthermore, the results of regression coefficients in table 4.5c, revealed that at 95% confidence level, a unit change in self-discipline will lead to a 0.432 increase in efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria, given that all other factors are held constant. On the strength of this result ($R^2= 0.137$, $F(1,398)= 63.209$, $p= 0.000$), this study reject the null hypothesis three (H_03) which state that self-discipline has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria.

H₀₄: Integrity has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State

The null hypothesis three which states that integrity has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State was tested using simple regression analysis. In the analysis, the value of integrity was regressed on the values of efficiency. The data for integrity (independent variable) was generated by summing responses of all items while that of efficiency (dependent) was generated by adding responses of all items used to measure the variable. The regression test results are presented in Tables 4.6a-c

Table 4.6a-c: Summary of Regression Analysis for the effect of integrity on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.383 ^a	.147	.145	.41062		
a. Predictors: (Constant), Integrity						
ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.568	1	11.568	68.611	.000 ^b
	Residual	67.105	398	.169		
	Total	78.673	399			
a. Dependent Variable: EfficiencyNew						
b. Predictors: (Constant), Integrity						
Coefficients^a						
Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
1	(Constant)	4.617	.086		53.930	.000
	Integrity	.248	.030	.383	8.283	.000
a. Dependent Variable: Efficiency New						

Source: Field Survey Results (2023)

Table 6a-c presents the results of the regression analysis for the effect of integrity on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria.

From the results, integrity has a significantly weak relationship with efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria ($R = 0.383$). The coefficient of determination (R^2) of 0.147 shows that integrity predicted 13.7% of the changes in efficiency while the remaining 85.3% changes in efficiency is explained by other external factor not considered in the present study. This result suggests that integrity influence 14.7% of efficiency of middle-skilled construction workers in selected LGAs in

Lagos State, Nigeria. It is important to emphasize that the effect predicted by integrity on efficiency despite been positive, it is a small effect.

Table 4.6b presents the results of ANOVA (overall model significance) of regression test which revealed that the integrity has a significant influence on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria. This can be explained by the F-value (68.611) and $p=0.000$ which is statistically significant at 95% confidence interval. Furthermore, the results of regression coefficients in table 4.6c, revealed that at 95% confidence level, a unit change in integrity will lead to a 0.248 increase in efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria, given that all other factors are held constant. On the strength of this result ($R^2= 0.147$, $F(1,398)= 68.611$, $p= 0.000$), this study reject the null hypothesis four (H_04) which state that integrity has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria.

H₀₅: Team work has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State

The null hypothesis five which states that team work has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State was tested using simple regression analysis. In the analysis, the value of team work was regressed on the values of efficiency. The data for team work (independent variable) was generated by summing responses of all items while that of efficiency (dependent) was generated by adding responses of all items used to measure the variable. The regression test results are presented in Tables 4.7a-c

Table 4.7a-c: Summary of Regression Analysis for the effect of Team work on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.150 ^a	.022	.020	.43960		
a. Predictors: (Constant), Team work						
ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.762	1	1.762	9.119	.003 ^b
	Residual	76.911	398	.193		
	Total	78.673	399			
a. Dependent Variable: Efficiency						
b. Predictors: (Constant), Team work						
Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.073	.053		77.555	.000
	Team work	.061	.020	.150	3.020	.003

a. Dependent Variable: Efficiency

Source: Field Survey Results (2023)

Table 4.7a-c presents the results of the regression analysis for the effect of team work on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria.

From the results, team work has a significantly weak relationship with efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria ($R = 0.150$). The coefficient of determination (R^2) of 0.022 shows that team work predicted 2.2% of the changes in efficiency while the remaining 97.8% changes in efficiency is explained by other external factor not considered in the present study. This result suggests that team work influence 2.2% of efficiency of middle-skilled construction workers in selected

LGAs in Lagos State, Nigeria. It is important to emphasize that the effect predicted by team work on efficiency is positive but very small.

Table 4.7b presents the results of ANOVA (overall model significance) of regression test which revealed that the team work has a significant influence on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria. This can be explained by the F-value (9.119) and $p=0.003$ which is statistically significant at 95% confidence interval. Furthermore, the results of regression coefficients in table 4.7c, revealed that at 95% confidence level, a unit change in team work will lead to a 0.061 increase in efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria, given that all other factors are held constant. On the strength of this result ($R^2= 0.022$, $F(1,398)= 9.119$, $p= 0.000$), this study reject the null hypothesis five (H_05) which state that team work has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria.

H₀₆: Behavioural pattern has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State

The null hypothesis six which states that behavioural pattern has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State was tested using simple regression analysis. In the analysis, the value of Behavioural pattern was regressed on the values of efficiency. The data for Behavioural pattern (independent variable) was generated by summing responses of all items including work ethics, integrity, self-discipline, sense if responsibility and team work while that of efficiency (dependent) was generated by adding responses of all items used to measure the variable. The regression test results are presented in Tables 4.8a-c

Table 4.8a-c: Summary of Regression Analysis for the effect of Behavioural pattern on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.542 ^a	.159	.156	.43136		
a. Predictors: (Constant), BehPatternNEw						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.618	1	4.618	124.819	.000 ^b
	Residual	74.055	398	.186		
	Total	78.673	399			
a. Dependent Variable: EfficiencyNew						
b. Predictors: (Constant), BehPatternNEw						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.016	.219		22.877	.000
	BehPatternNEw	0.379	.076	.242	4.982	.000

a. Dependent Variable: Efficiency

Source: Field Survey Results (2023)

Table 4.8a-c presents the results of the regression analysis for the effect of Behavioural pattern on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria.

From the results, Behavioural pattern has a significant relationship with efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria ($R = 0.542$). The coefficient of determination (R^2) of 0.159 shows that Behavioural pattern predicted 15.9% of the changes in efficiency while the remaining 84.1% changes in efficiency is explained by other external factor not considered in the present study. This result suggests that behavioural pattern influence 15.9% of efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria. It is important to emphasize that the effect predicted by behavioural pattern on efficiency is small.

Table 4.8b presents the results of ANOVA (overall model significance) of regression test which revealed that the behavioural pattern has a significant influence on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria. This can be explained by the F-value (124.819) and $p=0.000$ which is statistically significant at 95% confidence interval. Furthermore, the results of regression coefficients in table 4.8c, revealed that at 95% confidence level, a unit change in Behavioural pattern will lead to a 0.379 increase in efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria, given that all other factors are held constant. On the strength of this result ($R^2= 0.159$, $F(1,398)= 124.819$, $p= 0.000$), this study reject the null hypothesis six (H_06) which state that Behavioural pattern has no significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria.

4.3 Discussion of Findings

It is important to state this study has been able to establish that there exist a connection between behavioral patterns and the efficiency of middle skilled construction worker in Lagos State. This study listed six components of behavioural patterns and how they affected the efficiency of these workers. Of the six components of behavioural patterns

listed, motivation, safety, and work ethics had the most influence by contributing to the efficiency of middle skilled construction workers. It was discovered that behavioural patterns like self-discipline, risk assessment and quality control contributed less to the efficiency of middle skilled construction workers. It is important to state that behavioral patterns can have a significant influence on the efficiency of middle skilled construction workers¹. Scholars have discovered that middle skilled construction workers who have good time management skills, are able to prioritize tasks, set realistic deadlines, and stay focused on their work, develop effective communication, pay attention to detail, develop a positive attitude and maintain some level of flexibility tend to be more efficient on the job¹. They are able to prioritize tasks, set realistic deadlines, and stay focused on their work. Effective communication is essential in the construction industry. Middle skilled workers who are able to communicate clearly and effectively with their colleagues and supervisors can avoid misunderstandings and work more efficiently. Attention to detail is crucial in construction work, especially in tasks that require precision. Middle skilled workers who are able to pay close attention to details tend to make fewer mistakes and complete tasks more efficiently². The construction industry can be unpredictable, and workers who are able to adapt to changing situations tend to be more efficient. Middle skilled workers who are able to quickly adjust to changes in plans or unexpected challenges can keep projects on track and avoid delays. Middle skilled construction workers with a positive attitude tend to be more productive and efficient. They are able to work well with others, stay motivated, and maintain a high level of energy throughout the day. Overall, the behavioral patterns of middle skilled construction workers can have a significant impact on their efficiency and productivity on the job. Employers should strive to hire workers who demonstrate these positive behavioral patterns, and provide training and support to help workers develop these skills¹.

Scholars have been able to establish that time management was crucial in the construction industry, and it can have a significant impact on the efficiency of middle skilled construction workers³. Middle skilled construction workers who are able to prioritize their tasks can work more efficiently¹. They can identify the most critical tasks that need to be completed first, and then work their way down the list in order of importance. This helps them to focus their time and energy on the tasks that matter most, and avoid wasting time on less important tasks⁴. Middle skilled construction workers who are able to set realistic deadlines can work more efficiently⁵. They can estimate how long it will take to complete a task, and then set a deadline that is achievable. This helps them to stay on track and avoid delays, which can be costly in the construction industry. Middle skilled construction workers who are able to avoid distractions can work more efficiently⁵. They can stay focused on their tasks and avoid wasting time on non-work-related activities. This can include minimizing their use of social media or personal phone calls during working hours. Middle skilled construction workers who are able to multitask can work more efficiently. They can work on multiple tasks at the same time, which can help to reduce the overall time needed to complete a project. However, it is important to note that multitasking can be risky and may lead to errors or mistakes if not done properly. Middle skilled construction workers who are able to delegate tasks to others can work more efficiently. They can identify tasks that can be completed by other workers or subcontractors, which can help to free up their own time to focus on more critical tasks. In summary, time management plays a crucial role in the efficiency of middle skilled construction workers. By prioritizing tasks, setting realistic deadlines, avoiding distractions, multitasking effectively, and delegating tasks, these workers can complete projects more efficiently and avoid delays⁶.

Self-discipline can have a significant impact on the efficiency of middle skilled construction workers⁷. Self-discipline allows middle skilled construction workers to focus their attention and energy on the task at hand. They are able to block out distractions and maintain their focus on their work, which helps them to work more efficiently. Middle skilled construction workers who have self-discipline are better able to manage their time⁷. They are less likely to waste time on non-work-related activities and are more likely to prioritize their tasks effectively, which can help them to complete their work more efficiently. Middle skilled construction workers who have self-discipline are better able to set and achieve their goals. They are able to set clear and achievable goals for themselves and then work diligently to achieve them, which can help them to complete their work more efficiently⁸. Self-discipline helps middle skilled construction workers to be more responsive to the needs of their colleagues and supervisors. They are able to respond quickly to requests for assistance or information, which can help to prevent delays and ensure that projects are completed on time. Middle skilled construction workers who have self-discipline are able to maintain a high level of professionalism on the job⁹. They are able to demonstrate reliability, accountability, and a strong work ethic, which can help to build trust and respect among their colleagues and supervisors. Overall, self-discipline is an important trait for middle skilled construction workers. It can help them to work more efficiently, manage their time effectively, achieve their goals, be responsive to the needs of others, and maintain a high level of professionalism on the job⁹.

Scholars have been able to establish that there is a strong connection between safety and efficiency in the construction industry, and middle skilled construction workers play a key role in this relationship¹⁰. Middle skilled construction workers who prioritize safety are less likely to experience accidents and injuries on the job. This means they are less likely to have to take time off work due to injury or to require medical attention, which

can lead to delays in project completion¹¹. Workers who feel safe on the job tend to have higher morale and job satisfaction. This can translate into increased efficiency as workers are more motivated and engaged in their work¹². When safety protocols are followed, workers are able to complete their work more efficiently. This is because safety measures can help to reduce the risk of accidents or injuries, which can lead to delays and lost productivity. Compliance with safety regulations and standards is a legal requirement in the construction industry¹³. When middle skilled construction workers are compliant with safety regulations, they are less likely to incur fines or penalties for non-compliance. This means that they can avoid costly interruptions to their work, which can help them to work more efficiently¹⁰. A company that prioritizes safety on the job is likely to have a better reputation within the industry. This can lead to increased business opportunities, which can help to improve efficiency by keeping workers busy with projects. Overall, safety is a critical component of the construction industry, and it is closely tied to the efficiency of middle skilled construction workers^{11&13}. By prioritizing safety on the job, workers can reduce accidents and injuries, improve morale and productivity, comply with regulations, and improve their company's reputation. This can lead to increased efficiency and profitability for both workers and their employers.

There is a strong connection between work ethics and efficiency in the construction industry, and middle skilled construction workers play a key role in this relationship⁹. Middle skilled construction workers with strong work ethics tend to be more reliable. They show up to work on time, complete tasks on schedule, and are dependable. This means they are less likely to cause delays or disruptions on the job, which can help to improve efficiency. Workers with strong work ethics tend to be more productive¹¹. They are motivated to complete tasks efficiently and effectively, which can lead to increased productivity on the job. Middle skilled construction workers with strong work ethics take

responsibility for their work. They are willing to admit mistakes, fix problems, and learn from their experiences. This helps to ensure that tasks are completed correctly and efficiently. Workers with strong work ethics tend to be team players. They are willing to collaborate with others, share knowledge and skills, and support their colleagues¹³. This can lead to a more cohesive and efficient team on the job. Middle skilled construction workers with strong work ethics demonstrate professionalism on the job. They are respectful, courteous, and communicate effectively. This can help to build trust and respect among their colleagues and supervisors, which can lead to increased efficiency on the job. Overall, work ethics is a critical component of the construction industry, and it is closely tied to the efficiency of middle skilled construction workers¹³. By demonstrating reliability, productivity, accountability, teamwork, and professionalism on the job, workers can improve their efficiency and contribute to a more successful construction project.

Quality control is an important aspect of the construction industry and can have a significant impact on the efficiency of middle skilled construction workers. When quality control processes are in place, workers are less likely to need to redo work that has already been completed¹⁴. This can help to save time and improve efficiency on the job. Quality control processes often involve regular communication among team members, supervisors, and clients¹³. This can help to improve communication and ensure that everyone is on the same page, which can help to prevent errors and delays. When quality control processes are in place, workers are held accountable for their work. This can help to ensure that everyone is completing their tasks correctly and efficiently, which can help to improve overall project efficiency. Quality control processes often involve training and development opportunities for workers. This can help to improve their skills and knowledge, which can lead to increased efficiency on the job. Quality control processes

help to ensure that the final product meets or exceeds client expectations. This can lead to increased satisfaction and repeat business, which can help to improve efficiency by keeping workers busy with new projects. Overall, quality control is an essential component of the construction industry, and it is closely tied to the efficiency of middle skilled construction workers. By reducing rework, improving communication, increasing accountability, providing training opportunities, and delivering better end results, workers can improve their efficiency and contribute to a more successful construction project¹⁵.

Risk assessment is an important aspect of the construction industry and can have a significant impact on the efficiency of middle skilled construction workers. Risk assessment helps to identify potential hazards and risks on the job site. By identifying these risks early on, workers can take steps to mitigate them and reduce the likelihood of accidents or injuries. This can help to improve efficiency by avoiding delays due to accidents or injuries. Risk assessment often involves regular communication among team members, supervisors, and clients. This can help to improve communication and ensure that everyone is aware of potential risks and hazards on the job site. This can help to prevent errors and delays. When risk assessment processes are in place, workers are held accountable for their actions on the job site. This can help to ensure that everyone is completing their tasks correctly and efficiently, which can help to improve overall project efficiency. Risk assessment processes often involve training and development opportunities for workers. This can help to improve their skills and knowledge, which can lead to increased efficiency on the job. By prioritizing risk assessment and safety, workers can contribute to a culture of safety on the job site. This can help to create a more efficient and productive work environment by reducing accidents and injuries. Overall, risk assessment is an essential component of the construction industry, and it is closely tied to the efficiency of middle skilled construction workers. By identifying potential

hazards, improving communication, increasing accountability, providing training opportunities, and promoting a culture of safety, workers can improve their efficiency and contribute to a more successful construction project.

Motivation is an important factor that can have a significant impact on the efficiency of middle skilled construction workers. Motivated workers tend to be more productive. They are driven to complete tasks efficiently and effectively, which can lead to increased productivity on the job. Motivated workers tend to have better morale, which can help to create a positive work environment. This can lead to improved communication, teamwork, and overall job satisfaction, all of which can contribute to increased efficiency. Motivated workers tend to be more creative and innovative in their problem-solving. They are more likely to come up with solutions to challenges on the job site, which can help to improve efficiency and reduce delays. Motivated workers tend to be more accountable for their work. They take responsibility for their actions, admit mistakes, and are willing to learn from their experiences. This helps to ensure that tasks are completed correctly and efficiently. Motivated workers tend to produce higher quality work. They are driven to do their best, which can lead to better workmanship and fewer errors. Overall, motivation is a critical component of the construction industry, and it is closely tied to the efficiency of middle skilled construction workers. By increasing productivity, improving morale, enhancing problem-solving skills, increasing accountability, and improving quality, workers can improve their efficiency and contribute to a more successful construction project.

Machinery plays a significant role in the construction industry and can have a significant impact on the efficiency of middle skilled construction workers. Machinery can help to automate certain tasks, reducing the amount of time and effort required to complete them. This can lead to increased productivity and efficiency on the job site¹⁰. Machinery is often

designed to be precise and accurate, which can help to improve the quality of work and reduce errors. This can help to improve efficiency by reducing the need for rework. Some machinery can help to reduce physical strain on workers, which can help to reduce the likelihood of injuries and fatigue. This can help to improve efficiency by keeping workers healthy and able to work at peak performance¹². Machinery can often be used for multiple tasks, which can help to improve efficiency by reducing the need for specialized tools and equipment. Machinery is often designed with safety features to protect workers from accidents and injuries. This can help to improve efficiency by reducing the likelihood of delays due to accidents or injuries. Overall, machinery is an essential component of the construction industry, and it is closely tied to the efficiency of middle skilled construction workers⁹. By increasing productivity, improving accuracy, reducing physical strain, increasing versatility, and improving safety, workers can improve their efficiency and contribute to a more successful construction project¹⁵.

Teamwork is a crucial aspect of the construction industry, and it has a significant impact on the efficiency of middle skilled construction workers^{7,12}. Effective teamwork requires clear and open communication among team members. This can help to ensure that everyone is on the same page and that tasks are completed efficiently and effectively. Improved communication can also help to prevent errors and reduce delays on the job site. When team members work together effectively, they can divide tasks and responsibilities based on their skills and strengths. This can help to ensure that tasks are completed efficiently and that workers are not wasting time on tasks that are not suited to their skillset. Effective teamwork can lead to increased productivity^{8,9,14}. When team members are working together towards a common goal, they can often complete tasks more quickly and efficiently than when working alone. Working in a team can provide multiple perspectives and ideas for problem-solving. Team members can brainstorm together,

share their experiences and knowledge, and come up with creative solutions to challenges on the job site. This can help to improve efficiency and reduce delays. When team members work well together, they tend to have better morale. This can create a positive work environment, which can help to improve efficiency and job satisfaction. Overall, teamwork is an essential component of the construction industry, and it is closely tied to the efficiency of middle skilled construction workers. By improving communication, dividing tasks based on skills, increasing productivity, enhancing problem-solving skills, and improving morale, workers can improve their efficiency and contribute to a more successful construction project¹³.

The study found that there was a relationship between integrity and the efficiency of middle skilled construction workers. Scholars have found that integrity is an important aspect of the construction industry, and it has a significant impact on the efficiency of middle skilled construction workers¹⁰. Workers with integrity are trustworthy and reliable. They are more likely to follow safety protocols, rules and regulations, and company policies. This can help to ensure that tasks are completed efficiently and effectively, and can also help to prevent errors and accidents on the job site. Workers with integrity take responsibility for their actions. They are honest about their abilities, limitations, and mistakes, and are willing to learn from their experiences¹⁴. This helps to ensure that tasks are completed correctly and efficiently. Workers with integrity exhibit a high level of professionalism. They are respectful to their colleagues, clients, and the job site. This can help to create a positive work environment, which can contribute to improved morale and efficiency. Workers with integrity are committed to their work. They take pride in their workmanship and are dedicated to completing tasks efficiently and effectively. This can lead to increased productivity and better quality work. Workers with integrity build a good reputation for themselves and their company. This can help to attract new clients,

retain existing clients, and contribute to the success of the construction project. Overall, integrity is an essential component of the construction industry, and it is closely tied to the efficiency of middle skilled construction workers. By being trustworthy, accountable, professional, committed, and building a good reputation, workers can improve their efficiency and contribute to a more successful construction project¹².

There are several ways to improve the efficiency of middle skilled construction workers and these include Training and Development, Time Management, Motivation, Technology, Teamwork, Quality Control and Safety⁷. Providing ongoing training and development opportunities can help workers to enhance their skills and knowledge, which can lead to increased efficiency. Efficient time management is critical in the construction industry. Establishing clear deadlines, prioritizing tasks, and scheduling work can help workers to complete tasks efficiently. Motivated workers tend to be more productive and efficient. Providing incentives, recognition, and a positive work environment can help to improve motivation and efficiency. Technology can improve efficiency by automating certain tasks, providing real-time data and insights, and reducing errors and rework. Effective teamwork can lead to increased efficiency. Encouraging communication, collaboration, and division of labor based on skills and strengths can help workers to complete tasks more quickly and efficiently. Implementing quality control processes can help workers to ensure that tasks are completed correctly the first time, reducing the need for rework and increasing efficiency. Providing a safe work environment can help to improve efficiency by reducing accidents and injuries, preventing delays, and ensuring that workers are able to focus on their tasks without distraction or worry. By implementing these strategies, middle skilled construction workers can improve their efficiency, productivity, and overall performance on the job site.

Do Not Copy, Lead City University, Nigeria

Endnotes

1. H.Khiat. "Using automated time management enablers to improve self-regulated learning." *Active Learning in Higher Education* 23, no. 1 (2022): 3-15.
2. B.Oyarzun, F.Martin, and R.L. Moore. "Time management matters: Online faculty perceptions of helpfulness of time management strategies." *Distance Education* 41, no. 1 (2020): 106-127.
3. W.Wei-Ching. "Exploring the relationship among free-time management, leisure boredom, and internet addiction in undergraduates in Taiwan." *Psychological reports* 122, no. 5 (2019): 1651-1665.
4. J.Xu, J.Du, C.Wang, F.Liu, B.Huang, M.Zhang, and J.Xie. "Intrinsic motivation, favorability, time management, and achievement: A cross-lagged panel analysis." *Learning and Motivation* 72 (2020): 101677.
5. D.Yang, N.JS Sarma, M.F. Hyland, and R. Jayakrishnan. "Dynamic modeling and real-time management of a system of EV fast-charging stations." *Transportation Research Part C: Emerging Technologies* 128 (2021): 103186.
6. A.J.McDonald, A.Keil, A.Srivastava, P.Craufurd, A.Kishore, V.Kumar, G.Paudel et al. "Time management governs climate resilience and productivity in the coupled rice–wheat cropping systems of eastern India." *Nature Food* 3, no. 7 (2022): 542-551.
7. E.Arita. "Pengaruh learning from home, kesehatan, time management, media pembelajaran e-learning dan motivasibelajar terhadap keberhasilan belajarmahasiswaakuntansi di masa pandemi covid 19." *JurnalEkonomika Dan Bisnis (JEBS)* 3, no. 1 (2021): 11-20.
8. I.Chen, Z.Lee, X.Dong, J. H.Gamble, and H.Feng. "The influence of parenting style and time management tendency on internet gaming disorder among adolescents." *International Journal of Environmental Research and Public Health* 17, no. 23 (2020): 9120.
9. A.Amida, S.Algarni, and R.Stupnisky. "Testing the relationships of motivation, time management and career aspirations on graduate students' academic success." *Journal of Applied Research in Higher Education* 13, no. 5 (2021): 1305-1322.
10. R.Yan, M.F.Basheer, M.Irfan, and T.N. Rana. "Role of psychological factors in employee well-being and employee performance: an empirical evidence from Pakistan." *Revista Argentina de ClínicaPsicológica* 29, no. 5 (2020): 638.
11. B.J.Ali, and G.Anwar. "An empirical study of employees' motivation and its influence job satisfaction." *Ali, BJ, & Anwar, G.(2021). An Empirical Study of Employees' Motivation and its Influence Job Satisfaction. International Journal of Engineering, Business and Management* 5, no. 2 (2021): 21-30.
12. A.Törstena, A.J. Goga, and B.Jashari. "Improving the efficiency of human resources with the use of new technologies and reorganization process." *International Journal of Research in Business and Social Science (2147-4478)* 9, no. 1 (2020): 31-38.

13. E.Yaakobi, and J.Weisberg. "Organizational citizenship behavior predicts quality, creativity, and efficiency performance: The roles of occupational and collective efficacies." *Frontiers in Psychology* 11 (2020): 758.
14. S. D. Lopes, and X.Wang. "Emotional intelligence or artificial intelligence—an employee perspective." *Journal of Hospitality Marketing & Management* 29, no. 4 (2020): 377-403.
15. M.Imran, A. W.Memon, K.Talreja, and S. A.Bhutto. "Does E-HRM Advance Employee Engagement? A Study of Commercial Bank operating in Sukkur and Khairpur District." *Indian Journal of Economics and Business* 20, no. 4 (2021): 889-903.
16. B.Ozkeser. "Impact of training on employee motivation in human resources management." *Procedia Computer Science* 158 (2019): 802-810.
17. R.Diab-Bahman, and A.Al-Enzi. "The impact of COVID-19 pandemic on conventional work settings." *International Journal of Sociology and Social Policy* 40, no. 9/10 (2020): 909-927.
18. M.A.Salahat. "Employee Empowerment, Knowledge Management and Decision-making Agility; Mediating Role of Extra-role Performance." *International Journal of Academic Research in Business and Social Sciences* 11, no. 7 (2021).
19. Realyvásquez-Vargas, Arturo, Karina Cecilia Arredondo-Soto, Jorge Luis García-Alcaraz, Bogart Yail Márquez-Lobato, and Jesrael Cruz-García. "Introduction and configuration of a collaborative robot in an assembly task as a means to decrease occupational risks and increase efficiency in a manufacturing company." *Robotics and Computer-Integrated Manufacturing* 57 (2019): 315-328.
20. G.K.Gosnell, John A. List, and Robert D. Metcalfe. "The impact of management practices on employee productivity: A field experiment with airline captains." *Journal of Political Economy* 128, no. 4 (2020): 1195-1233.
21. B.Aczel, M.Kovacs, T.Van Der Lippe, and B.Szaszi. "Researchers working from home: Benefits and challenges." *PloS one* 16, no. 3 (2021): e0249127.
22. F.Fallucchi, M.Coladangelo, R.Giuliano, and E.William De Luca. "Predicting employee attrition using machine learning techniques." *Computers* 9, no. 4 (2020): 86.
23. E.Jumady, and L. Lilla. "Antecedent and Consequence the Human Resources Management Factors on Civil Servant Performance." *Golden Ratio of Human Resource Management* 1, no. 2 (2021): 104-116.
24. E.Sugiarti, E.Finatariani, and Y.T.Rahman. "Earning Cultural Values as A Strategic Step to Improve Employee Performance." *Scientific Journal of Reflection: Economic, Accounting, Management and Business* 4, no. 1 (2021): 221-230.
25. C.Prentice, S.D. Lopes, and X. Wang. "The impact of artificial intelligence and employee service quality on customer satisfaction and loyalty." *Journal of Hospitality Marketing & Management* 29, no. 7 (2020): 739-756.

26. K.Jehanzeb. "Does perceived organizational support and employee development influence organizational citizenship behavior? Person–organization fit as moderator." *European Journal of Training and Development* 44, no. 6/7 (2020): 637-657.
27. N.P.Tran, and D. Hong Vo. "Human capital efficiency and firm performance across sectors in an emerging market." *Cogent Business & Management* 7, no. 1 (2020): 1738832.

Do Not Copy, Lead City University, Nigeria

Chapter Five

Conclusion

This chapter summarizes the study, draw the conclusion and proffer recommendations on the assessment of behavioural pattern, efficiency and time-management of middle-skilled construction workers in selected LGAs in Lagos State. The summary of the study was made in line with the report of the whole study, while conclusion was drawn based on the findings of the study. Recommendations are based on the understanding of phenomenon under study by the researcher.

5.1 Summary of Findings

The study set out to investigate behavioural pattern, efficiency and time-management of middle-skilled construction workers in selected LGAs in Lagos State. The study also set out to examine the functional relationship between behavioral Pattern and efficiency of middle-skilled construction workers in the selected LGAs in Lagos State; ascertain the effect of teamwork on the efficiency of middle-skilled construction workers; and finally to determine the influence of integrity on efficiency of middle-skilled construction workers in the Selected LGAs in Lagos State.

The literature review established gave an overview of the construction sector in a developing country like Nigerian context, identifying the importance of ethics, behavioural pattern, professionalism and efficiency in the construction industry. This chapter also examined the concept of middle skilled construction workers while focusing on the middle skilled workers in Lagos. Finally, the study was hinged upon two theories namely the stakeholder's theory and the social contract theory.

The study adopted the cross sectional survey design. The population of this study consists of Seven Thousand Four Hundred and ninety (7490) middle skilled construction workers

in Lagos. The purposive sampling technique was used to select the respondents. A total of four and fifty hundred (450) respondents across five (5) local governments in Lagos namely Lagos Island, Lagos Mainland, Eti Osa, Surulere and Apapa took part in this study. The study made use of one instruments which was a self-developed questionnaire and each item is rated using 5 Point Likert Scale. From the interpretation of analyses of data collected and findings of the study, the following can be summed up as the major empirical findings of this study:

1. Work ethics has positive and significant effect on efficiency ($R^2= 0.128$, $F(1,398)= 58.553$, $p= 0.000$).
2. Sense of responsibility has positive and significant effect on efficiency ($R^2= 0.079$, $F(1,398)= 34.062$, $p= 0.000$).
3. Discipline has positive and significant effect on efficiency ($R^2= 0.137$, $F(1,398)= 63.209$, $p= 0.000$).
4. Integrity has positive and significant effect on efficiency ($R^2= 0.147$, $F(1,398)= 68.611$, $p= 0.000$).
5. Team work has positive and significant effect on efficiency of middle-skilled construction workers in selected LGAs in Lagos State, Nigeria ($R^2= 0.022$, $F(1,398)= 9.119$, $p= 0.000$).
6. Behavioural pattern has positive and significant effect on efficiency ($R^2= 0.159$, $F(1,398)= 124.819$, $p= 0.000$).

5.2 Conclusion

Based on the findings of the study, it was hereby concluded that the behavioural patterns had an important role to play in the efficiency of middle skilled construction workers and the it is imperative to state that construction companies should endeavour to ensure that

they train middle skilled workers on the needed behavioural patterns that are expected of these workers.

5.3 Recommendations

Based on the findings and conclusion of this study, the following recommendations were made

1. Construction companies should learn to incorporate organisational culture into their activities as this will help the workers of such company incorporate the needed behavioural patterns into their activities.
2. For efficiency to become a part of the skills of middle skilled construction workers, construction companies are mandated to incorporate the use of machinery and a well thought out procurement plan to help improve the pace at which middle skilled construction workers work.
3. The construction companies are expected to carry out constant training and retraining of middle skilled construction workers if they are to inculcate the desirable behavioural patterns into these set of workers.

5.4 Contribution to Knowledge

The finding of this study its findings made important contributions to knowledge in the following ways:

Based on the conceptual review done, this study offers immerse contribution to knowledge conceptually in several ways. This study identified and filled conceptual gaps in literature regarding the functional relationship between behavioural pattern and efficiency of middle-skilled construction workers in Lagos State, Nigeria. In conclusion, the conceptual model developed for the study suggests another area in which this study

has contributed to the body of knowledge conceptually because no known similar studies, both theoretical and empirical, have utilized the model in their studies. Hence, adding to models that can explain the link between behavioural pattern and efficiency of middle-skilled construction workers in Lagos State, Nigeria. The outcome of this study is in line with the stakeholders and social contract theory which provided the theoretical underpinning for this study. Hence, adding to literature that offered support for the assumption of these theories.

This study evaluated the individual and combined effect of behavioural pattern measures; ethics, integrity, self-discipline, sense of responsibility, and team work on efficiency of middle-skilled construction workers in Lagos State. The empirical outcome of this study contributes to the existing literature and empirical findings in the area of project management and human psychology and equally served as a reference material for future researchers. Specifically, hypothesis one to six suggested that ethics, integrity, self-discipline, sense of responsibility, and team work all have positive and significant effect on efficiency of middle-skilled construction workers in Lagos State. Moreover, behavioural pattern have positive and significant effect on efficiency of middle-skilled construction workers in Lagos State. Overall, these above-mentioned points lay emphasis on the fact that this study offers significant contribution to knowledge and has practical implication for the management of construction companies in Lagos State, Nigeria.

5.5 Suggestion for Further Studies

The limitations of this study offer opportunity and suggestions for future study. Since this study has focused on the influence of behavioural pattern, efficiency and time-management of middle-skilled construction workers in selected LGAs in Lagos State. It is therefore advised that this study be replicated in other states of Nigeria to measure

how behavioural pattern, efficiency and time-management of middle-skilled construction in those states.

Do Not Copy, Lead City University, Nigeria

Bibliography

Books

- Baker.R., B.Evans, Q.Li, and B.Cung. "Does inducing students to schedule lecture watching in online classes improve their academic performance? An experimental analysis of a time management intervention." *Research in Higher Education* 60 (2019): 521-552.
- Bilan.Y., H.Mishchuk, I.Roshchyk, and O.Joshi. "Hiring and retaining skilled employees in SMEs: problems in human resource practices and links with organizational success." *Business: Theory and Practice* 21, no. 2 (2020): 780-791.
- Chu.D.K., E.A. Akl, S.Duda, K.Solo, S.Yaacoub, and H.J. Schünemann. "COVID-19 Systematic Urgent Review Group Effort (SURGE) study authors. Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis." *Lancet* 395, no. 10242 (2020): 1973-1987.
- Darvishmotevali.M., and L.Altinay. "Green HRM, environmental awareness and green behaviors: The moderating role of servant leadership." *Tourism Management* 88 (2022): 104401.
- Dörnyei.Z., and C.Muir. "Creating a motivating classroom environment." *Second handbook of English language teaching* (2019): 719-736.
- Freeman.R.E.. "The politics of stakeholder theory: Some future directions." In R. Edward Freeman's *Selected Works on Stakeholder Theory and Business Ethics*. Cham: Springer International Publishing, (2023). pp. 119-132.
- Fisher.W.W., C.C. Piazza, and H.S. Roane, eds. *Handbook of applied behavior analysis*. Guilford Publications, 2021.
- Lasch.C.. "The culture of narcissism." In *American Social Character*, pp. 241-267. Routledge, 2019.
- McVea.J.F., and R. E.Freeman. "A names-and-faces approach to stakeholder management: How focusing on stakeholders as individuals can bring ethics and entrepreneurial strategy together." In R. Edward Freeman's *Selected Works on Stakeholder Theory and Business Ethics*. Cham: Springer International Publishing, (2023). pp. 197-215
- Webb.S.A. "Social work in a risk society." In *Social Work*, pp. 74-78. Routledge, 2023.
- Sewell.G., and B.Wilkinson. "'Someone to Watch over Me': surveillance, discipline and the Just-in-Time labour process." In *Postmodern Management Theory*. Routledge, (2019). pp. 151-169.

Conferences

- Kharadze.N, E.Gulua, and D.Davit. "Free-Time Management among Master's Degree Students of Georgia." *Humanities Today: Proceedings* 1, no. 2 (2022): 1-14.

Zhang.Z., and H.Peng. "Deeper and wider siamese networks for real-time visual tracking." In Proceedings of the IEEE/CVF conference on computer vision and pattern recognition. (2019). pp. 4591-4600.

Journals

- Aguinis.H., I.Villamor, and P.G.Kelly. "Understanding employee responses to COVID-19: a behavioral corporate social responsibility perspective." *Management Research: Journal of the Iberoamerican Academy of Management* 18, no. 4 (2020): 421-438.
- Ababneh.O.M.. "How do green HRM practices affect employees' green behaviors? The role of employee engagement and personality attributes." *Journal of Environmental Planning and Management* 64, no. 7 (2021): 1204-1226.
- Allegrante.J.P., M.T. Wells, and J.C. Peterson. "Interventions to support behavioral self-management of chronic diseases." *Annual review of public health* 40 (2019): 127-146.
- Abolfotouh.M.A., F.A.Adel , Z.Almutairi, M.Salam, A.Alhashem, A.A.Abdallah, and O.Modayfer. "Attitudes toward mental illness, mentally ill persons, and help-seeking among the Saudi public and sociodemographic correlates." *Psychology research and behavior management* (2019): 45-54.
- Aggarwal.I., and A.W. Woolley. "Team creativity, cognition, and cognitive style diversity." *Management Science* 65, no. 4 (2019): 1586-1599.
- Amershi.S., A.Begel, C.Bird, R.DeLine, H.Gall, E.Kamar, N.Nagappan, B.Nushi, and T.Zimmermann. "Software engineering for machine learning: A case study." In 2019 IEEE/ACM 41st International Conference on Software Engineering: Software Engineering in Practice (ICSE-SEIP). IEEE, (2019). pp. 291-300.
- Awidi.I.T., and M.Paynter. "The impact of a flipped classroom approach on student learning experience." *Computers & education* 128 (2019): 269-283.
- Avlijaš.G.. "Examining the value of Monte Carlo simulation for project time management." *Management: Journal of Sustainable Business and Management Solutions in Emerging Economies* 24, no. 1 (2019): 11-23.
- Ahmad.S., A.Batool, and A.Hussain Choudhry. "Path Relationship of Time Management and Academic Achievement of Students in Distance Learning Institutions." *Pakistan Journal of Distance and Online Learning* 5, no. 2 (2019): 191-208.
- Arita.E.. "Pengaruh learning from home, kesehatan, time management, media pembelajaran e-learning dan motivasibelajar terhadap keberhasilan belajarmahasiswaakuntansi di masa pandemi covid 19." *JurnalEkonomika Dan Bisnis (JEBS)* 3, no. 1 (2021): 11-20.
- Amida.A., S.Algarni, and R.Stupnisky. "Testing the relationships of motivation, time management and career aspirations on graduate students' academic success." *Journal of Applied Research in Higher Education* 13, no. 5 (2021): 1305-1322.

- Ali.B.J., and G.Anwar. "An empirical study of employees' motivation and its influence job satisfaction." Ali, BJ, & Anwar, G.(2021). An Empirical Study of Employees' Motivation and its Influence Job Satisfaction. *International Journal of Engineering, Business and Management* 5, no. 2 (2021): 21-30.
- Aczel.B., M.Kovacs, T.Van Der Lippe, and B.Szaszi. "Researchers working from home: Benefits and challenges." *PloS one* 16, no. 3 (2021): e0249127.
- Albukhitan.S.. "Developing digital transformation strategy for manufacturing." *Procedia computer science* 170 (2020): 664-671.
- AlHamad.A., M.Alshurideh, K.Alomari, B. Kurdi, H.Alzoubi, S.Hamouche, and S.Al-Hawary. "The effect of electronic human resources management on organizational health of telecommunications companies in Jordan." *International Journal of Data and Network Science* 6, no. 2 (2022): 429-438.
- Banks.S., T.Cai, E.De Jonge, J.Shears, M.Shum, A.M. Sobočan, K.Strom, R.Truell, M.JesúsÚriz, and M.Weinberg. "Practising ethically during COVID-19: Social work challenges and responses." *International Social Work* 63, no. 5 (2020): 569-583.
- Brett.J., K.Behfar, and M.Kern. "Managing multicultural teams." In *Organizational Collaboration*. Routledge, (2020). pp. 155-164.
- Berg-Weger.M., and J.E. Morley. "Loneliness and social isolation in older adults during the COVID-19 pandemic: Implications for gerontological social work." *The journal of nutrition, health & aging* 24 (2020): 456-458.
- Bartsch.S., E.Weber, M.Büttgen, and A.Huber. "Leadership matters in crisis-induced digital transformation: how to lead service employees effectively during the COVID-19 pandemic." *Journal of Service Management* 32, no. 1 (2020): 71-85.
- Bostock.S., A.D. Crosswell, A.A. Prather, and A.Stepto. "Mindfulness on-the-go: Effects of a mindfulness meditation app on work stress and well-being." *Journal of occupational health psychology* 24, no. 1 (2019): 127
- Benevides Soares.A., P.R. Soares da Silva Alves, M.Eduarda de MeloJardim, C.A.Cobellas de Medeiros, and Rejane Ribeiro. "Time management in the routine of university students: results of an intervention." *CienciasPsicológicas* 17, no. 2 (2023).
- Bajec.B.. "Relationship between time perspective and time management behaviours." *psihologija* 52, no. 2 (2019): 197-215.
- Batbaatar.N., and G.Amin. "STUDENTS'TIME MANAGEMENT DURING ONLINE CLASS." In *International Conference Universitas Pekalongan 2021*, vol. 1, no. 1, pp. 189-194. 2021.
- Blom.T., H.Kazeroony, and Y.Du Plessis. "The role of electronic human resource management in diverse workforce efficiency." *SA Journal of Human Resource Management* 17, no. 1 (2019): 1-12.

- Budur.T., and M.Poturak. "Employee performance and customer loyalty: Mediation effect of customer satisfaction." *Middle East Journal of Management* 8, no. 5 (2021): 453-474.
- Chaudhary.R.. "Green human resource management and employee green behavior: an empirical analysis." *Corporate Social Responsibility and Environmental Management* 27, no. 2 (2020): 630-641.
- Capizzi.A., J.Woo, and M.Verduzco-Gutierrez. "Traumatic brain injury: an overview of epidemiology, pathophysiology, and medical management." *Medical Clinics* 104, no. 2 (2020): 213-238.
- Contreras.F., E.Baykal, and G.Abid. "E-leadership and teleworking in times of COVID-19 and beyond: What we know and where do we go." *Frontiers in psychology* 11 (2020): 590271
- Chen.Q., M.Liang, Y.Li, J.Guo, D.Fei, L.Wang, L. I. He et al. "Mental health care for medical staff in China during the COVID-19 outbreak." *The Lancet Psychiatry* 7, no. 4 (2020): e15-e16.
- Cumbie.B.A., D.C. Kutz, and M.A. Floren. "Psychological Capital and Professional Identity: A Study of Professional Business Students." *Journal of Higher Education Theory and Practice* 23, no. 16 (2023): 1-14.
- Chen.I., Z.Lee, X.Dong, J. H.Gamble, and H.Feng. "The influence of parenting style and time management tendency on internet gaming disorder among adolescents." *International Journal of Environmental Research and Public Health* 17, no. 23 (2020): 9120.
- Cherian.J., V.Gaikar, R.Paul, and R.Pech. "Corporate culture and its impact on employees' attitude, performance, productivity, and behavior: An investigative analysis from selected organizations of the United Arab Emirates (UAE)." *Journal of Open Innovation: Technology, Market, and Complexity* 7, no. 1 (2021): 45.
- Demir.K.A., G.Döven, and B.Sezen. "Industry 5.0 and human-robot co-working." *Procedia computer science* 158 (2019): 688-695.
- Diab-Bahman.R., and A.Al-Enzi. "The impact of COVID-19 pandemic on conventional work settings." *International Journal of Sociology and Social Policy* 40, no. 9/10 (2020): 909-927.
- Demirdağ.S.. "Communication skills and time management as the predictors of student motivation." *International Journal of Psychology and Educational Studies* 8, no. 1 (2021): 38-50.
- Darmawan.D., R.Mardikaningsih, E. A. Sinambela, S.Arifin, A.R. Putra, M.Hariani, M.Irfan, Y.R. Al Hakim, and F.Issalillah. "The quality of human resources, job performance and employee loyalty." *International Journal of Psychosocial Rehabilitation* 24, no. 3 (2020): 2580-2592.
- Embse.V., V.R.Shannon, T.Gibbs, and A.Mankin. "Teacher stress interventions: A systematic review." *Psychology in the Schools* 56, no. 8 (2019): 1328-1343.

- Epstein.E.G., P.B. Whitehead, C.Prompahakul, L.R. Thacker, and A.B. Hamric. "Enhancing understanding of moral distress: the measure of moral distress for health care professionals." *AJOB empirical bioethics* 10, no. 2 (2019): 113-124.
- Ebbels.S.H., E.McCartney, V.Slonims, J.E. Dockrell, and C.F. Norbury. "Evidence-based pathways to intervention for children with language disorders." *International journal of language & communication disorders* 54, no. 1 (2019): 3-19.
- Fallucchi.F., M.Coladangelo, R.Giuliano, and E.William De Luca. "Predicting employee attrition using machine learning techniques." *Computers* 9, no. 4 (2020): 86.
- Faraone.S.V., A. L. Rostain, J.Blader, B.Busch, A.C. Childress, D.F. Connor, and H.Jeffrey. Newcorn. "Practitioner Review: Emotional dysregulation in attention-deficit/hyperactivity disorder–implications for clinical recognition and intervention." *Journal of Child Psychology and Psychiatry* 60, no. 2 (2019): 133-150.
- Floridi.L., J.Cowls, M.Beltrametti, R.Chatila, P.Chazerand, V.Dignum, C.Luetge et al. "An ethical framework for a good AI society: Opportunities, risks, principles, and recommendations." *Ethics, governance, and policies in artificial intelligence* (2021): 19-39.
- Fuchs.C.. "The ethics of the digital commons." *Journal of Media Ethics* 35, no. 2 (2020): 112-126.
- Fisher.W.W., C.C. Piazza, and H.S. Roane, eds. *Handbook of applied behavior analysis*. Guilford Publications, 2021.
- Griffin.W.R. , M.P.Jean , and S. M. Gully. *Organizational behavior: Managing people and organizations*. CENGAGE learning, 2020.
- Gul.R., I.U. Tahir, and T. Batool. "Impact of teachers workload on their time management skills at university level." *Indian Journal of Economics and Business* 20, no. 3 (2021): 819-829.
- Gosnell.G.K., John A. List, and Robert D. Metcalfe. "The impact of management practices on employee productivity: A field experiment with airline captains." *Journal of Political Economy* 128, no. 4 (2020): 1195-1233.
- Hagendorff.T.. "The ethics of AI ethics: An evaluation of guidelines." *Minds and machines* 30, no. 1 (2020): 99-120.
- Harris.J.. "Moral enhancement and freedom." In *The Ethics of Sports Technologies and Human Enhancement*. Routledge, (2020). pp. 399-408
- Heath.S., and B.Shine. "Teaching Techniques to Facilitate Time Management in Remote and Online Teaching." *Journal of Teaching and Learning with Technology* 10 (2021): 164-171.
- Harvey.D.,. "The condition of postmodernity." In *The New social theory reader*, pp. 235-242. Routledge, 2020

- Itani.O.S., and L.D. Hollebeek. "Light at the end of the tunnel: Visitors' virtual reality (versus in-person) attraction site tour-related behavioral intentions during and post-COVID-19." *Tourism Management* 84 (2021): 104290.
- Imran.M., A. W.Memon, K.Talreja, and S. A.Bhutto. "Does E-HRM Advance Employee Engagement? A Study of Commercial Bank operating in Sukkur and Khairpur District." *Indian Journal of Economics and Business* 20, no. 4 (2021): 889-903.
- Joseph.R.D., and K. Manikandan. "Time Management Competency among Higher Secondary School Students in Puducherry." *Journal of Education & Pedagogy*: 37.
- Jumady.E., and L. Lilla. "Antecedent and Consequence the Human Resources Management Factors on Civil Servant Performance." *Golden Ratio of Human Resource Management* 1, no. 2 (2021): 104-116.
- Jehanzeb.K.. "Does perceived organizational support and employee development influence organizational citizenship behavior? Person–organization fit as moderator." *European Journal of Training and Development* 44, no. 6/7 (2020): 637-657.
- Kim.M., A.Chan Hyung Kim, J.I. Newman, G.R. Ferris, and P.L. Perrewé. "The antecedents and consequences of positive organizational behavior: The role of psychological capital for promoting employee well-being in sport organizations." *Sport Management Review* 22, no. 1 (2019): 108-125.
- Khiat.H. "Using automated time management enablers to improve self-regulated learning." *Active Learning in Higher Education* 23, no. 1 (2022): 3-15.
- Kirk.H.. "Prediction versus management models relevant to risk assessment: The importance of legal decision-making context." *Clinical Forensic Psychology and Law* (2019): 347-359.
- Kim.Y.J., W.G. Kim, H.M. Choi, and K.Phetvaroon. "The effect of green human resource management on hotel employees' eco-friendly behavior and environmental performance." *International journal of hospitality management* 76 (2019): 83-93.
- Kniffin.K.M., J.Narayanan, F.Anseel, J.Antonakis, S.P. Ashford, A.B. Bakker, P.Bamberger et al. "COVID-19 and the workplace: Implications, issues, and insights for future research and action." *American psychologist* 76, no. 1 (2021): 63.
- Li.L., W.He, Li Xu, I.Ash, M.Anwar, and X.Yuan. "Investigating the impact of cybersecurity policy awareness on employees' cybersecurity behavior." *International Journal of Information Management* 45 (2019): 13-24.
- Lopes.S.D., and X.Wang. "Emotional intelligence or artificial intelligence—an employee perspective." *Journal of Hospitality Marketing & Management* 29, no. 4 (2020): 377-403.
- Liang-Kung.C., J.Woo, P.Assantachai, A.Tung-Wai , C.Ming-Yueh, K. Iijima, H.Chul Jang et al. "Asian Working Group for Sarcopenia: 2019 consensus update on sarcopenia diagnosis and treatment." *Journal of the American Medical Directors Association* 21, no. 3 (2020): 300-307.
- Lipponen.L.. "Exploring foundations for computer-supported collaborative learning." In *Computer support for collaborative learning*. Routledge,(2023). pp. 72-81.

- Longo.F., A.Padovano, and S.Umbrello. "Value-oriented and ethical technology engineering in industry 5.0: A human-centric perspective for the design of the factory of the future." *Applied Sciences* 10, no. 12 (2020): 4182.
- Mitchell.M.S., R.L. Greenbaum, R.M. Vogel, M.B. Mawritz, and D.J. Keating. "Can you handle the pressure? The effect of performance pressure on stress appraisals, self-regulation, and behavior." *Academy of Management Journal* 62, no. 2 (2019): 531-552.
- Mittelstadt.B.. "Principles alone cannot guarantee ethical AI." *Nature machine intelligence* 1, no. 11 (2019): 501-507.
- Mercado.E.M., J.P. Bowers, and E.M. Pennello. "Stakeholders' Perceptions of Developing and Sustaining School–University Partnerships: A Multiple Case Study." *Journal of Music Teacher Education* (2023): 10570837231203018
- Martin.K.. "Ethical implications and accountability of algorithms." *Journal of business ethics* 160 (2019): 835-850.
- Muhammed.A.T.A.K., M.A. Sezerol, and Z. M. Altaş. "Chronic Disease Management in Primary Care: A Cross-Sectional Study in Türkiye." *Phoenix Medical Journal* 5, no. 3 (2023): 211-216.
- Mosele.F., J. Remon, J. Mateo, C. B. Westphalen, F.Barlesi, M. P. Lolkema, N. Normanno et al. "Recommendations for the use of next-generation sequencing (NGS) for patients with metastatic cancers: a report from the ESMO Precision Medicine Working Group." *Annals of Oncology* 31, no. 11 (2020): 1491-1505.
- McDonald.A.J., A.Keil, A.Srivastava, P.Craufurd, A.Kishore, V.Kumar, G.Paudel et al. "Time management governs climate resilience and productivity in the coupled rice–wheat cropping systems of eastern India." *Nature Food* 3, no. 7 (2022): 542-551.
- Nazah.K., W.N.Ayu , R.Irwansyah, R.P.Dewi, and D.N.Septa . "The Role of UKT Scholarships in Moderating Student Financial Attitudes and Financial Literacy on Finance Management Behavior." *Jurnal Mantik* 6, no. 2 (2022): 2205-2212.
- Navalta.J.W., W.J. Stone, and T. S. Lyons. "Ethical issues relating to scientific discovery in exercise science." *International journal of exercise science* 12, no. 1 (2019): 1.
- Nasution.M.I., M.Fahmi, and M.A. Prayogi. "The quality of small and medium enterprises performance using the structural equation model-part least square (SEM-PLS)." In *Journal of Physics: Conference Series*, vol. 1477, no. 5. IOP Publishing, (2020). p. 052052
- Nassar.A.H., N.K. Zern, L.K. McIntyre, D.Lynge, C.A. Smith, R.P. Petersen, K.D. Horvath, and D.E. Wood. "Emergency restructuring of a general surgery residency program during the coronavirus disease 2019 pandemic: the University of Washington experience." *JAMA surgery* 155, no. 7 (2020): 624-627.
- Nelson.P.T., D.W. Dickson, J.Q. Trojanowski, C.R. Jack, P.A. Boyle, K.Arfanakis, R.Rademakers et al. "Limbic-predominant age-related TDP-43 encephalopathy (LATE): consensus working group report." *Brain* 142, no. 6 (2019): 1503-1527.

- Orazi .D.C., J.Chen, and E.Y. Chan. "To erect temples to virtue: Effects of state mindfulness on other-focused ethical behaviors." *Journal of Business Ethics* 169, no. 4 (2021): 785-798.
- Oyarzun.B., F.Martin, and R.L. Moore. "Time management matters: Online faculty perceptions of helpfulness of time management strategies." *Distance Education* 41, no. 1 (2020): 106-127.
- Ozkeser.B.. "Impact of training on employee motivation in human resources management." *Procedia Computer Science* 158 (2019): 802-810.
- Pancasila.I, S.Haryono, and B. A. Sulisty. "Effects of work motivation and leadership toward work satisfaction and employee performance: Evidence from Indonesia." *The Journal of Asian Finance, Economics and Business* 7, no. 6 (2020): 387-397.
- Prentice.C., S.D. Lopes, and X. Wang. "The impact of artificial intelligence and employee service quality on customer satisfaction and loyalty." *Journal of Hospitality Marketing & Management* 29, no. 7 (2020): 739-756.
- Partovi.E., and R.Matousek. "Bank efficiency and non-performing loans: Evidence from Turkey." *Research in international Business and Finance* 48 (2019): 287-309.
- Revythi.A., and N.Tselios. "Extension of technology acceptance model by using system usability scale to assess behavioral intention to use e-learning." *Education and Information technologies* 24 (2019): 2341-2355.
- Ross.R., I.J. Neeland, Shizuya Yamashita, Iris Shai, Jaap Seidell, Paolo Magni, Raul D. Santos et al. "Waist circumference as a vital sign in clinical practice: a Consensus Statement from the IAS and ICCR Working Group on Visceral Obesity." *Nature Reviews Endocrinology* 16, no. 3 (2020): 177-189.
- Roscoe.S., N.Subramanian, J.Charbel JC , and T.Chong. "Green human resource management and the enablers of green organisational culture: Enhancing a firm's environmental performance for sustainable development." *Business Strategy and the Environment* 28, no. 5 (2019): 737-749.
- Realyvásquez-Vargas, Arturo, Karina Cecilia Arredondo-Soto, Jorge Luis García-Alcaraz, Bogart Yail Márquez-Lobato, and Jesrael Cruz-García. "Introduction and configuration of a collaborative robot in an assembly task as a means to decrease occupational risks and increase efficiency in a manufacturing company." *Robotics and Computer-Integrated Manufacturing* 57 (2019): 315-328.
- Rogowska.A.M., C.Kuśnierz, and A.Bokszczanin. "Examining anxiety, life satisfaction, general health, stress and coping styles during COVID-19 pandemic in Polish sample of university students." *Psychology Research and Behavior Management* (2020): 797-811.
- Raisch.S., and S.Krakowski. "Artificial intelligence and management: The automation–augmentation paradox." *Academy of management review* 46, no. 1 (2021): 192-210.
- Robinson.E., E.Boyland, A.Chisholm, J.Harrold, N.G. Maloney, L.Marty, B.R. Mead, Rob Noonan, and Charlotte A. Hardman. "Obesity, eating behavior and physical

- activity during COVID-19 lockdown: A study of UK adults." *Appetite* 156 (2021): 104853.
- Rosenbaum.L.. "Facing Covid-19 in Italy—ethics, logistics, and therapeutics on the epidemic's front line." *New England Journal of Medicine* 382, no. 20 (2020): 1873-1875.
- Rudolph.C.W., B.Allan, M.Clark, G.Hertel, A.Hirschi, F.Kunze, K.Shockley, Mindy Shoss, Sabine Sonnentag, and Hannes Zacher. "Pandemics: Implications for research and practice in industrial and organizational psychology." *Industrial and Organizational Psychology* 14, no. 1-2 (2021): 1-35.
- Rose.S.. "Medical student education in the time of COVID-19." *Jama* 323, no. 21 (2020): 2131-2132.
- Rees.E.M., E.S. Nightingale, Y.Jafari, N.R. Waterlow, S.Clifford, C.A.B. Pearson, CMMID Working Group, Thibaut Jombart, Simon R. Procter, and Gwenan M. Knight. "COVID-19 length of hospital stay: a systematic review and data synthesis." *BMC medicine* 18 (2020): 1-22.
- Rakhshan.M., K.Rostami, E.Setoodegan, and J.Eslami. "The relationship between leadership style and time management in senior and middle nursing managers." *Revista Latinoamericana de Hipertensión* 14, no. 1 (2019): 26-31.
- Spyropoulos.A.C., J.H. Levy, W.Ageno, J.M. Connors, B.J. Hunt, T.Iba, M.Levi et al. "Scientific and standardization committee communication: clinical guidance on the diagnosis, prevention, and treatment of venous thromboembolism in hospitalized patients with COVID-19." *Journal of Thrombosis and Haemostasis* 18, no. 8 (2020): 1859-1865.
- Saeed.B.B., B.Afsar, S.Hafeez, I.Khan, M.Tahir, and A.A.Muhammad . "Promoting employee's proenvironmental behavior through green human resource management practices." *Corporate Social Responsibility and Environmental Management* 26, no. 2 (2019): 424-438.
- Soroya.S.H., A.Farooq, K.Mahmood, J.Isoaho, and S.E. Zara. "From information seeking to information avoidance: Understanding the health information behavior during a global health crisis." *Information processing & management* 58, no. 2 (2021): 102440.
- Sy.M.P., P.Bontje, N.Ohshima, and N.Kiepek. "Articulating the form, function, and meaning of drug using in the Philippines from the lens of morality and work ethics." *Journal of Occupational Science* 27, no. 1 (2020): 12-21.
- Sugiarti.E., E.Finatariani, and Y.T.Rahman. "Earning Cultural Values as A Strategic Step to Improve Employee Performance." *Scientific Journal of Reflection: Economic, Accounting, Management and Business* 4, no. 1 (2021): 221-230.
- Salahat.M.A.. "Employee Empowerment, Knowledge Management and Decision-making Agility; Mediating Role of Extra-role Performance." *International Journal of Academic Research in Business and Social Sciences* 11, no. 7 (2021).

- Saltz.J., M.Skirpan, C.Fiesler, M.Gorelick, T.Yeh, R.Heckman, Neil Dewar, and Nathan Beard. "Integrating ethics within machine learning courses." *ACM Transactions on Computing Education (TOCE)* 19, no. 4 (2019): 1-26.
- Singh.S.K., J.Chen, M.D.Giudice, and A.El-Kassar. "Environmental ethics, environmental performance, and competitive advantage: Role of environmental training." *Technological Forecasting and Social Change* 146 (2019): 203-211.
- Sevinc.G., and S.W. Lazar. "How does mindfulness training improve moral cognition: a theoretical and experimental framework for the study of embodied ethics." *Current opinion in psychology* 28 (2019): 268-272.
- Stevens.A.E., C.M. Hartung, C.R. Shelton, P.A. LaCount, and A.Heaney. "The effects of a brief organization, time management, and planning intervention for at-risk college freshmen." *Evidence-Based Practice in Child and Adolescent Mental Health* 4, no. 2 (2019): 202-218.
- Shen.X, X.Zou, X.Zhong, J.Yan, and L.Li. "Psychological stress of ICU nurses in the time of COVID-19." *Critical Care* 24 (2020): 1-3.
- Succi.C., and M.Canovi. "Soft skills to enhance graduate employability: comparing students and employers' perceptions." *Studies in higher education* 45, no. 9 (2020): 1834-1847.
- Shkarlet.S., M.Dubyna, K.Shtyrkhun, and L.Verbivska. "Transformation of the paradigm of the economic entities development in digital economy." *WSEAS transactions on environment and development* 16, no. 8 (2020): 413-422.
- Song.Q., Y.Wang, Y.Chen, J.Benitez, and J.Hu. "Impact of the usage of social media in the workplace on team and employee performance." *Information & Management* 56, no. 8 (2019): 103160.
- Turale.S., C.Meechamnan, and W.Kunaviktikul. "Challenging times: ethics, nursing and the COVID-19 pandemic." *International nursing review* 67, no. 2 (2020): 164-167.
- Tsamados.A., N.Aggarwal, J.Cowls, J.Morley, H.Roberts, M.Taddeo, and L.Floridi. "The ethics of algorithms: key problems and solutions." *Ethics, Governance, and Policies in Artificial Intelligence* (2021): 97-123.
- Törstena.A., A.J. Goga, and B.Jashari. "Improving the efficiency of human resources with the use of new technologies and reorganization process." *International Journal of Research in Business and Social Science* (2147-4478) 9, no. 1 (2020): 31-38.
- Tran.N.P., and D. Hong Vo. "Human capital efficiency and firm performance across sectors in an emerging market." *Cogent Business & Management* 7, no. 1 (2020): 1738832.
- Tang.K.N.. "The importance of soft skills acquisition by teachers in higher education institutions." *Kasetsart Journal of Social Sciences* 41, no. 1 (2020): 22-27.
- Uzir.N.A., D.Gašević, J.Jovanović, W.Matcha, L.Lisa-Angelique, and A.Fudge. "Analytics of time management and learning strategies for effective online learning in blended environments." In *Proceedings of the tenth international conference on learning analytics & knowledge*. (2020). pp. 392-401.

- von Haehling.S., J.E. Morley, A. JS Coats, and S.D. Anker. "Ethical guidelines for publishing in the Journal of Cachexia, Sarcopenia and Muscle: update 2019." *Journal of Cachexia, Sarcopenia and Muscle* 10, no. 5 (2019): 1143-1145.
- Wang.Y., L.Jiping, Y.Jun, X.Ma, L.Xiaoqing, W.Jing, G.Yang, G.Ren, and Y.Feng. "Analysis of the environmental behavior of farmers for non-point source pollution control and management: An integration of the theory of planned behavior and the protection motivation theory." *Journal of environmental management* 237 (2019): 15-23.
- Wang.Z., and H.Xu. "When and for whom ethical leadership is more effective in eliciting work meaningfulness and positive attitudes: The moderating roles of core self-evaluation and perceived organizational support." *Journal of Business Ethics* 156 (2019): 919-940.
- Wadden.T.A., S.T.Jena, and M.L. Butryn. "Lifestyle modification approaches for the treatment of obesity in adults." *American psychologist* 75, no. 2 (2020): 235.
- Wu.Y., J.Wang, C.Luo, S.Hu, X.Lin, A.E. Anderson, E.Bruera, X.Yang, S.Weil, and Y.Qian. "A comparison of burnout frequency among oncology physicians and nurses working on the frontline and usual wards during the COVID-19 epidemic in Wuhan, China." *Journal of pain and symptom management* 60, no. 1 (2020): e60-e65.
- Werdhiastutie.A., F.Suhariadi, and S.G. Partiwil. "Achievement motivation as antecedents of quality improvement of organizational human resources." *Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Volume 3* (2020): 747-752.
- Waizenegger.L., B.McKenna, W.Cai, and T.Bendz. "An affordance perspective of team collaboration and enforced working from home during COVID-19." *European Journal of Information Systems* 29, no. 4 (2020): 429-442.
- Wei-Ching.W.. "Exploring the relationship among free-time management, leisure boredom, and internet addiction in undergraduates in Taiwan." *Psychological reports* 122, no. 5 (2019): 1651-1665.
- Uzir.N.A., D.Gašević, J.Jovanović, W.Matcha, L.Lisa-Angelique, and A.Fudge. "Analytics of time management and learning strategies for effective online learning in blended environments." In *Proceedings of the tenth international conference on learning analytics & knowledge*. (2020). pp. 392-401.
- Vahdat.S.. "The role of IT-based technologies on the management of human resources in the COVID-19 era." *Kybernetes* 51, no. 6 (2022): 2065-2088.
- Xu.J., J.Du, C.Wang, F.Liu, B.Huang, M.Zhang, and J.Xie. "Intrinsic motivation, favorability, time management, and achievement: A cross-lagged panel analysis." *Learning and Motivation* 72 (2020): 101677.
- Yong.J.Y., Y.Mohd-Yusoff , T. Ramayah, S.Sehnem, and V.Mani. "Pathways towards sustainability in manufacturing organizations: Empirical evidence on the role of green human resource management." *Business Strategy and the Environment* 29, no. 1 (2020): 212-228.

- Yao.T., Q.Qiu, and Y.Wei. "Retaining hotel employees as internal customers: Effect of organizational commitment on attitudinal and behavioral loyalty of employees." *International Journal of Hospitality Management* 76 (2019): 1-8.
- Yin.Y., Y.Wang, and Y.Lu. "Antecedents and outcomes of employee empowerment practices: A theoretical extension with empirical evidence." *Human Resource Management Journal* 29, no. 4 (2019): 564-584.
- Yeşim.K.A.Y.A. "STRATEGIES FOR BREAKING THE GLASS CEILING: THE STUDY OF SCALE DEVELOPMENT." *Nişantaşı Üniversitesi Sosyal Bilimler Dergisi* 11, no. 3 (2023): 277-293.
- Yang.Y., A.Schulze, A.M. Bekui, S.Elisseou, S.W. Sun, S.Hay, P.John. Moriarty, and Stephen R. Holt. "Chief resident behaviors that lead to effective morning reports, a multisite qualitative study." *BMC Medical Education* 23, no. 1 (2023): 1-8.
- Yaakobi.E., and J.Weisberg. "Organizational citizenship behavior predicts quality, creativity, and efficiency performance: The roles of occupational and collective efficacies." *Frontiers in Psychology* 11 (2020): 758.
- Yang.D., N.JS Sarma, M.F. Hyland, and R. Jayakrishnan. "Dynamic modeling and real-time management of a system of EV fast-charging stations." *Transportation Research Part C: Emerging Technologies* 128 (2021): 103186.
- Yan.R., M.F.Basheer, M.Irfan, and T.N. Rana. "Role of psychological factors in employee well-being and employee performance: an empirical evidence from Pakistan." *Revista Argentina de Clínica Psicológica* 29, no. 5 (2020): 638.
- Zimmer.M.. "'But the data is already public': on the ethics of research in Facebook." In *The ethics of information technologies*. Routledge, (2020). pp. 229-241.

Appendix I

Questionnaire

Lead City University Ibadan

Department of Management and Accounting

This study seeks to investigate the influence of behavioural patterns on the efficiency of middle-skilled construction workers. This questionnaire has therefore been developed to elicit data from you. The information provided here are strictly for academic purpose and will be treated with the utmost confidentiality. Please read all the questions carefully. The survey has been designed to facilitate easy answering. Answer requires either a \surd or to indicate your appropriate responses. All surveys are confidential. Only the researcher sees and processes the questionnaire.

Section A: Demographic Data

Gender: Male [], Female []

Age: 20-25 [], 26-30 [], 31- 35 [], 36-40 [] 41 -45 [] 45 and above [].

Work Experiences of Respondents: 2-5 years [], 6-10 years [], 11-20 years [], 21-30 years [], above 30 years [].

Educational Level: Primary [], JSSCE [], SSCE [], NCE/ND [], HND/Degree [], Postgraduate []

Section B: Behavioural Pattern of Middle-Skilled Construction Workers

The items in this section of the questionnaire has been developed to measure the behavioural pattern of middle-skilled construction workers. Therefore, you are required to pick one of the responses list to answer the questions.

S/N	Item	Strongly disagree	Disagree	Agree	Strongly Agree
1	I maintain a very good work ethics on site at all times.				
2	I use all the necessary safety				

	equipment to do my job				
3	I use the correct procedures for carrying out my job				
3	I maintain self-discipline at all times on site.				
4	I ensure that quality standard is used throughout the entire project.				
5	I am responsible for making sure that the project is successful.				
6	I believe that working together as a team will make projects better.				
7	I am always cooperating				

	with other workers on site				
--	----------------------------	--	--	--	--

Section C: Efficiency of Middle-Skilled Construction Workers

The items in this section of the questionnaire has been developed to measure the effect of efficiency of middle-skilled construction workers. Therefore, you are required to pick one of the responses list to answer the questions.

s/n	Statement	Never	Seldom	Sometimes	Often	Always
1	There is the required Manpower on site.					
2	The labourers on site have the needed skill.					
3	Procurement of materials are carried out as planned.					
4	We have an adequate material and quality control strategy					
5	There is an efficient co-ordination of materials					
6	There is an efficient organisation of machinery on-site.					

7	There are labour motivation strategies used on site.					
8	There is adequate quality control on site					
9	There is a risk assessment and quantification plan on site					
10	There is an Integrated procurement plan of all materials needed on site.					
11	I evaluates daily schedule					
12	I reviews a					
13	We are allowed to give feedback on site.					
14	We have short-term goals to achieve					
15	There is a daily					

	schedule of time.					
16	There is a weekly schedule of events.					
17	Our productivity level is always appraised on a daily basis.					

Do Not Copy, Lead City University, Nigeria

Appendix II



The Researcher on the Field

Do Not Copy, Lead City University, Nigeria

SPSS OUT

Statistics

		Wo rk_ ethi cs	Safet y_ eq uipm ents	Correct _proce dure	Self_ disci pline	Qualit y_ stan dard	Proje ct_ Su ccess	Team work	Coope ration
N	Valid	400	400	400	400	400	400	400	400
	Missing	0	0	0	0	0	0	0	0
Mean		3.37	3.01	3.11	2.97	2.78	2.68	2.68	2.37

Frequency Table

ork_ethics

		Frequen cy	Percent	Valid Percent	Cumulative Percent
Val id	Strongly Disagree	24	6.0	6.0	6.0
	Disagree	44	11.0	11.0	17.0
	Agree	92	23.0	23.0	40.0
	Strongly_Agree	240	60.0	60.0	100.0
	Total	400	100.0	100.0	

Safety equipments

		Frequen cy	Percent	Valid Percent	Cumulative Percent
Val id	Strongly Disagree	20	5.0	5.0	5.0
	Disagree	112	28.0	28.0	33.0
	Agree	112	28.0	28.0	61.0
	Strongly_Agree	156	39.0	39.0	100.0
	Total	400	100.0	100.0	

Correct procedure

		Frequen	Percent	Valid	Cumulative
--	--	---------	---------	-------	------------

		cy		Percent	Percent
Val id	Strongly Disagree	30	7.5	7.5	7.5
	Disagree	49	12.3	12.3	19.8
	Agree	170	42.5	42.5	62.3
	Strongly_Agree	151	37.8	37.8	100.0
	Total	400	100.0	100.0	

Self discipline

		Frequen cy	Percent	Valid Percent	Cumulative Percent
Val id	Disagree	116	29.0	29.0	29.0
	Agree	180	45.0	45.0	74.0
	Strongly_Agr ee	104	26.0	26.0	100.0
	Total	400	100.0	100.0	

Quality standard

		Frequen cy	Percent	Valid Percent	Cumulative Percent
Val id	Strongly Disagree	12	3.0	3.0	3.0
	Disagree	112	28.0	28.0	31.0
	Agree	228	57.0	57.0	88.0
	Strongly_Agree	48	12.0	12.0	100.0
	Total	400	100.0	100.0	

Project Success

		Frequen cy	Percent	Valid Percent	Cumulative Percent
Val id	Strongly Disagree	48	12.0	12.0	12.0
	Disagree	132	33.0	33.0	45.0
	Agree	120	30.0	30.0	75.0
	Strongly_Agree	100	25.0	25.0	100.0

Total	400	100.0	100.0
-------	-----	-------	-------

Teamwork

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	36	9.0	9.0	9.0
Disagree	140	35.0	35.0	44.0
Agree	140	35.0	35.0	79.0
Strongly_Agree	84	21.0	21.0	100.0
Total	400	100.0	100.0	

Cooperation

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	104	26.0	26.0	26.0
Disagree	132	33.0	33.0	59.0
Agree	76	19.0	19.0	78.0
Strongly_Agree	88	22.0	22.0	100.0
Total	400	100.0	100.0	

Statistics

	Manpower	Material	Quality Control	Coordination_of_material	Machinery	Motivation	Risk Assesment	Integrated_purposement	Daily_schedule	Feedback	Short_term_goals	Time_management	Appraisement_daily
N	4	4	4	4	40	4	40	40	400	400	40	400	400

	0	0	0	0	0	0	0	0	0			0			
	0	0	0	0	0	0	0	0	0			0			
Mean	4.43	4.12	3.95	3.96	3.97	3.78	4.48	4.05	4.13	4.27	2.57	3.99	3.98	3.32	

Frequency Table

Manpower

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	32	8.0	8.0	8.0
	Seldom	12	3.0	3.0	11.0
	Sometime	13	3.3	3.3	14.2
	Often	93	23.3	23.3	37.5
	Always	194	48.5	48.5	86.0
	6	56	14.0	14.0	100.0
Total		400	100.0	100.0	

Skill

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom	16	4.0	4.0	4.0
	Sometime	89	22.3	22.3	26.3

	Often	127	31.8	31.8	58.0
	Always	168	42.0	42.0	100.0
	Total	400	100.0	100.0	

Material

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom	16	4.0	4.0	4.0
	Sometime	92	23.0	23.0	27.0
	Often	188	47.0	47.0	74.0
	Always	104	26.0	26.0	100.0
	Total	400	100.0	100.0	

Quality Control

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom	36	9.0	9.0	9.0
	Sometime	80	20.0	20.0	29.0
	Often	148	37.0	37.0	66.0
	Always	136	34.0	34.0	100.0
	Total	400	100.0	100.0	

Coordination of material

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	36	9.0	9.0	9.0
	Seldom	28	7.0	7.0	16.0
	Sometime	40	10.0	10.0	26.0
	Often	104	26.0	26.0	52.0
	Always	192	48.0	48.0	100.0
	Total	400	100.0	100.0	

Machinery

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom	40	10.0	10.0	10.0
	Sometime	92	23.0	23.0	33.0
	Often	184	46.0	46.0	79.0
	Always	84	21.0	21.0	100.0
	Total	400	100.0	100.0	

Motivation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom	12	3.0	3.0	3.0
	Sometime	8	2.0	2.0	5.0
	Often	156	39.0	39.0	44.0
	Always	224	56.0	56.0	100.0
	Total	400	100.0	100.0	

Risk assessment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	16	4.0	4.0	4.0
	Seldom	32	8.0	8.0	12.0
	Sometime	48	12.0	12.0	24.0
	Often	124	31.0	31.0	55.0
	Always	180	45.0	45.0	100.0
	Total	400	100.0	100.0	

Integrated procurement

		Frequency	Percent	Valid Percent	Cumulative Percent
--	--	-----------	---------	---------------	--------------------

Valid	Sometime	84	21.0	21.0	21.0
	Often	180	45.0	45.0	66.0
	Always	136	34.0	34.0	100.0
	Total	400	100.0	100.0	

Daily_schedule

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometime	68	17.0	17.0	17.0
	Often	156	39.0	39.0	56.0
	Always	176	44.0	44.0	100.0
	Total	400	100.0	100.0	

Feedback

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	72	18.0	18.0	18.0
	Seldom	172	43.0	43.0	61.0
	Sometime	60	15.0	15.0	76.0
	Often	48	12.0	12.0	88.0
	Always	48	12.0	12.0	100.0
	Total	400	100.0	100.0	

Short_term_goals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometime	128	32.0	32.0	32.0
	Often	148	37.0	37.0	69.0
	Always	124	31.0	31.0	100.0
	Total	400	100.0	100.0	

Time management

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom	48	12.0	12.0	12.0
	Sometime	76	19.0	19.0	31.0
	Often	112	28.0	28.0	59.0
	Always	164	41.0	41.0	100.0
	Total	400	100.0	100.0	

Appraised daily

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	24	6.0	6.0	6.0
	Seldom	80	20.0	20.0	26.0
	Sometime	140	35.0	35.0	61.0
	Often	56	14.0	14.0	75.0
	Always	100	25.0	25.0	100.0
	Total	400	100.0	100.0	

Hypothesis One

a. Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.358 ^a	.128	.126	.41511
a. Predictors: (Constant), Work ethics				
b. ANOVA^a				

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.090	1	10.090	58.553	.000 ^b
	Residual	68.584	398	.172		
	Total	78.673	399			
a. Dependent Variable: Efficiency						
b. Predictors: (Constant), Work ethics						
c. Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.522	.080		56.316	.000
	Work_ethics	.176	.023	.358	7.652	.000
a. Dependent Variable: Efficiency						

Hypothesis Two

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.281 ^a	.079	.077	.83241
a. Predictors: (Constant), Project_Success				
ANOVA^a				

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.601	1	23.601	34.062	.000 ^b
	Residual	275.774	398	.693		
	Total	299.375	399			
a. Dependent Variable: efficiency						
b. Predictors: (Constant), Project_Success						
Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.576	.121		37.711	.000
	Project_Success	0.248	0.043	0.281	5.836	.000
a. Dependent Variable: efficiency						

Do Not Copy

Hypothesis Three

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.370 ^a	.137	.135	.80567
a. Predictors: (Constant), Self_discipline				

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.029	1	41.029	63.209	.000 ^b
	Residual	258.346	398	.649		
	Total	299.375	399			
a. Dependent Variable: efficiency						
b. Predictors: (Constant), Self_discipline						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.627	.166		15.788	.000
	Self_discipline	.432	.054	.370	7.950	.000
a. Dependent Variable: efficiency						

Hypothesis Four

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.383 ^a	.147	.145	.41062

a. Predictors: (Constant), Integrity						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.568	1	11.568	68.611	.000 ^b
	Residual	67.105	398	.169		
	Total	78.673	399			
a. Dependent Variable: EfficiencyNew						
b. Predictors: (Constant), Integrity						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.617	.086		53.930	.000
	Integrity	.248	.030	.383	8.283	.000
a. Dependent Variable: EfficiencyNew						

Do Not Copy

Hypothesis Five

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.150 ^a	.022	.020	.43960

a. Predictors: (Constant), Team work						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.762	1	1.762	9.119	.003 ^b
	Residual	76.911	398	.193		
	Total	78.673	399			
a. Dependent Variable: Efficiency						
b. Predictors: (Constant), Team work						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.073	.053		77.555	.000
	Team work	.061	.020	.150	3.020	.003
a. Dependent Variable: Efficiency						

Hypothesis Six

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1		.542 ^a	.159		.156		.43136
a. Predictors: (Constant), BehPatternNEw							
ANOVA^a							
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	4.618	1	4.618	124.819	.000 ^b	
	Residual	74.055	398	.186			
	Total	78.673	399				
a. Dependent Variable: EfficiencyNew							
b. Predictors: (Constant), BehPatternNEw							
Coefficients^a							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
1	(Constant)	5.016	.219		22.877	.000	
	BehPatternNEw	0.379	.076	.242	4.982	.000	
a. Dependent Variable: Efficiency							

Do



Y, Nigeria

Bio-data

A. Personal Data

1. Full Names: Mike Ademola OKE
2. Address: House 29, Haggai Estate 8, Redemption Camp Mowe, Ogun State.
3. Date and Place of Birth: 3rd March, 1969
4. Nationality: Nigeria
5. Name and Address of Next of Kin: David Adeniran OKE
House 29, Haggai Estate 8, Redemption Camp Mowe, Ogun State

B. Educational Background

1. Educational Institutions Attended with Dates and Qualifications

- Primary Education: Army Children School, Iwo- Road, Ibadan.(1982).
- Secondary Education: Bishop Phillips Academy, Iwo- Road, Ibadan(1987). WAEC
Nov/Dec 1987.

2. Academic Qualifications Obtained (with Dates)

Federal Polytechnic Ilaro, Ogun state: National Diploma in Building Technology (1991).
Yaba College of Technology, Yaba, Lagos State. Higher National Diploma in Building
Technology (2006).
Federal University Of Technology, Akure, Ondo State. Post Graduate Diploma in
Project Management (2017)

3. Professional Qualifications with Dates

Nigeria Institute of Building (2010).

C. Working Experience with Dates

- i. Federal Ministry Of Works, Ilaro, Ogun state (1989)
- ii. Niko Engineering Ltd Dam Construction in Ejiba Kogi State (1991)
- iii. Mitun Nigerian Ltd (1998- 2007)

- iv. Nigeria Security & Civil Defense Corps (2007-Till date)

D. Award and Fellowships if any

- i. Merit Award by Nigeria Security And Civil Defense Corps
- ii. Membership Award by the Nigerian Institute Of Building

E. Membership of Academic Professional Bodies

- i. Nigeria Institute Of Builders
- ii. Council Of Registered Builders Of Nigeria

F. Publications

1. Thesis/Dissertations

2. Books/Monographs

a) Authored Books:

b) Edited Books:

c) Contribution to Books:

3. Published Refereed Conference Proceedings:

4. Papers Accepted for Publication:

5. Book Reviews and Commentaries in Scholarly Journals

6. Technical Reports:

7. Other Publications:

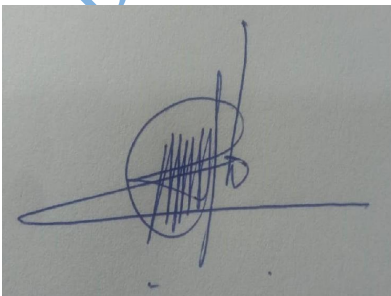
8. Creative Work:

G. Notable Scholarly or Professional Accomplishments:

H. Major Conferences /Workshops Attended

- i. Builders' Document Preparation and Applications For effective Building Construction Project Delivery in Nigeria (Aug 2021)
- ii. Menace a of building Collapse: Need For Building Code Domestication (Dec 2021)

- iii. Sustainable Building Practice Amidst Global Health And Security Challenges (Jan 2022)
- iv. Building Projects Delivery in a Depressed Economy: Opportunities & Challenges (Dec 2026)
- v. Sustainable Building Projects Delivery Process (Dec 2019)
- vi. Physical Planning, Building Control Laws and Sustainable Housing/ Building Project Delivery in Nigeria (May 2022)
- vii. Innovation And Technology In Housing Development (May 2023)
- viii. Cement And Concrete: Advances In Research and application (Aug 2023)
- ix. Drug Prevention, Treatment & Care Sensitisation Training by UNODC (2021)
- x. Public Customer Care, Mental Health Awareness, Intelligence Profiling Criminal data Collation, Accessing Criminal State of mind, Bullet Proof Vest Classification Exercise, Modern Interrogation Techniques, Forensic Evidence Gathering, Security Communications By NSCDC (Sep 2021)
- xi. Weapon Training Course and Shooting Range By NSCDC (Nov 2022)
- xii. Close Circuit Television CCTV/ Surveillance Training By NSCDC (April 2021)
- xiii. Academic & Industry EDGE Workshop with Focus on “Widening Skill Gap and The Future Of Work” By Lead City University, Ibadan (April, 2022)



Signature

30/10/2023

Date

The University Compliance Certification

This is to certify that this thesis was written by **Mike Ademola OKE** with Matriculation number **LCU/PG/002294**, in the Department of Management & Accounting, Faculty of Management and Social Sciences, Lead City University, Ibadan in full compliance with approved University format.

Signature

Date

Do Not Copy, Lead City University, Nigeria