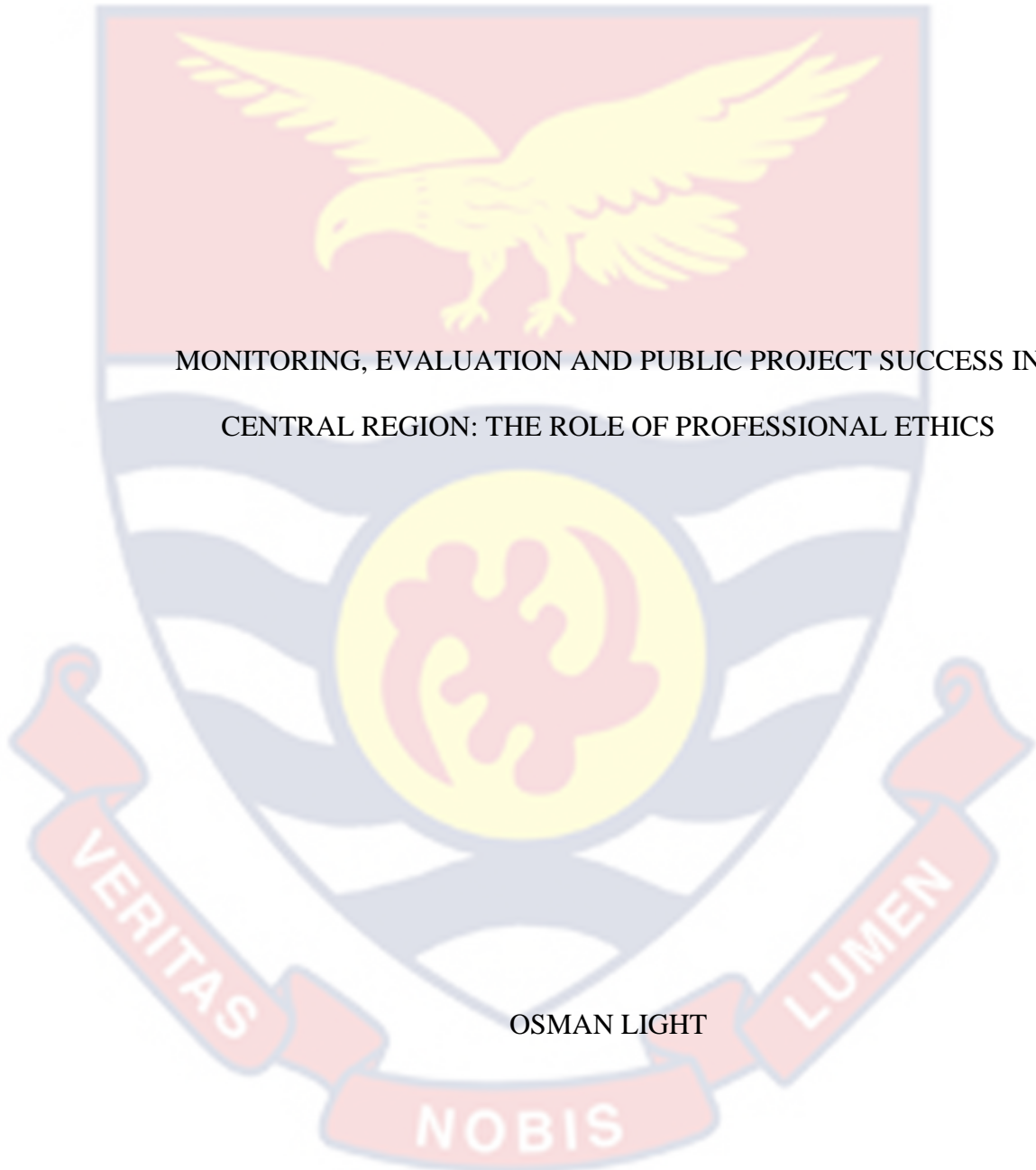


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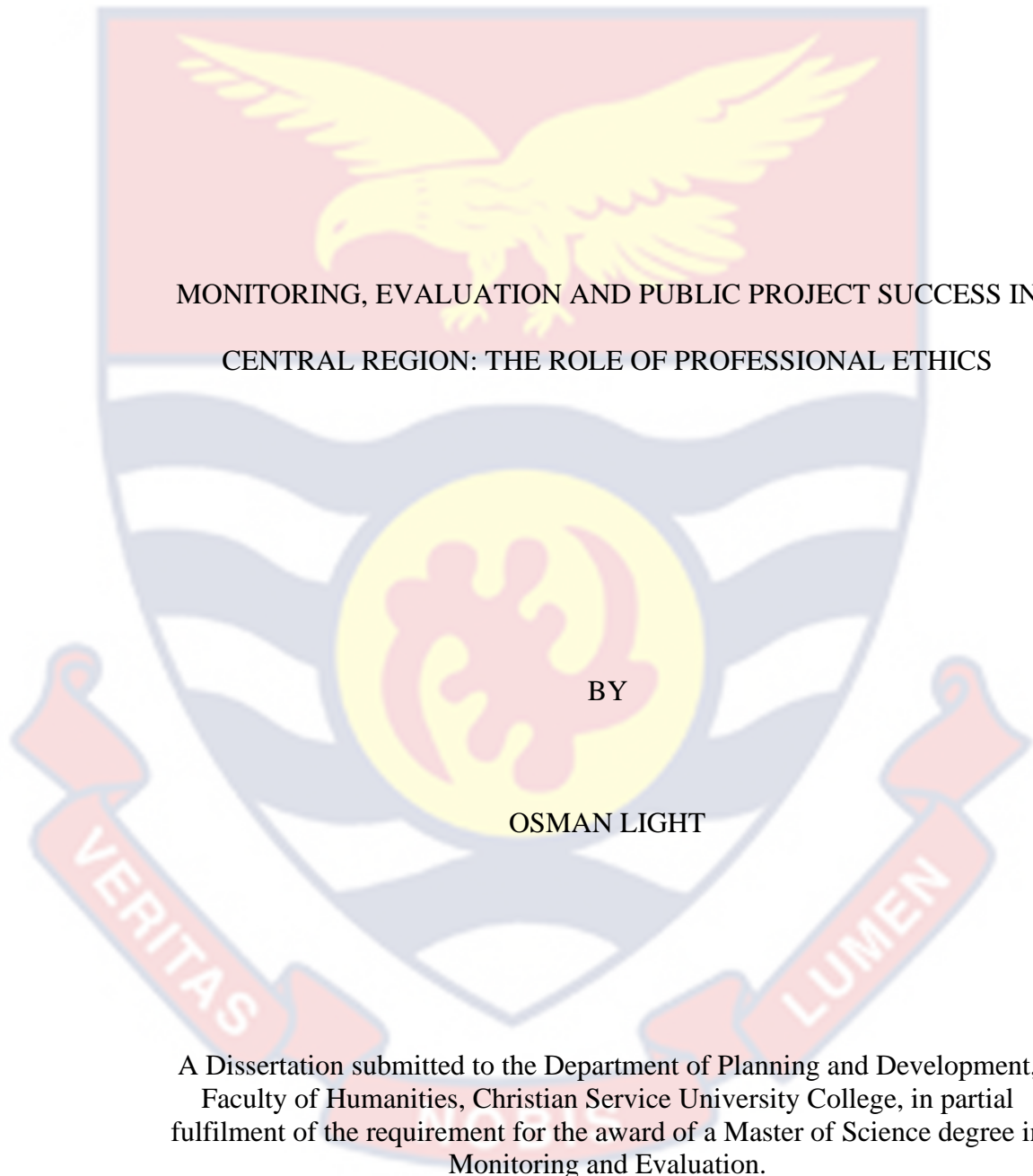


MONITORING, EVALUATION AND PUBLIC PROJECT SUCCESS IN  
CENTRAL REGION: THE ROLE OF PROFESSIONAL ETHICS

OSMAN LIGHT

2023

CHRISTIAN SERVICE UNIVERSITY COLLEGE



MONITORING, EVALUATION AND PUBLIC PROJECT SUCCESS IN  
CENTRAL REGION: THE ROLE OF PROFESSIONAL ETHICS

BY

OSMAN LIGHT

A Dissertation submitted to the Department of Planning and Development,  
Faculty of Humanities, Christian Service University College, in partial  
fulfilment of the requirement for the award of a Master of Science degree in  
Monitoring and Evaluation.

SEPTEMBER 2023

## DECLARATION

### Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature: ..... Date: 05.10.2023 .....

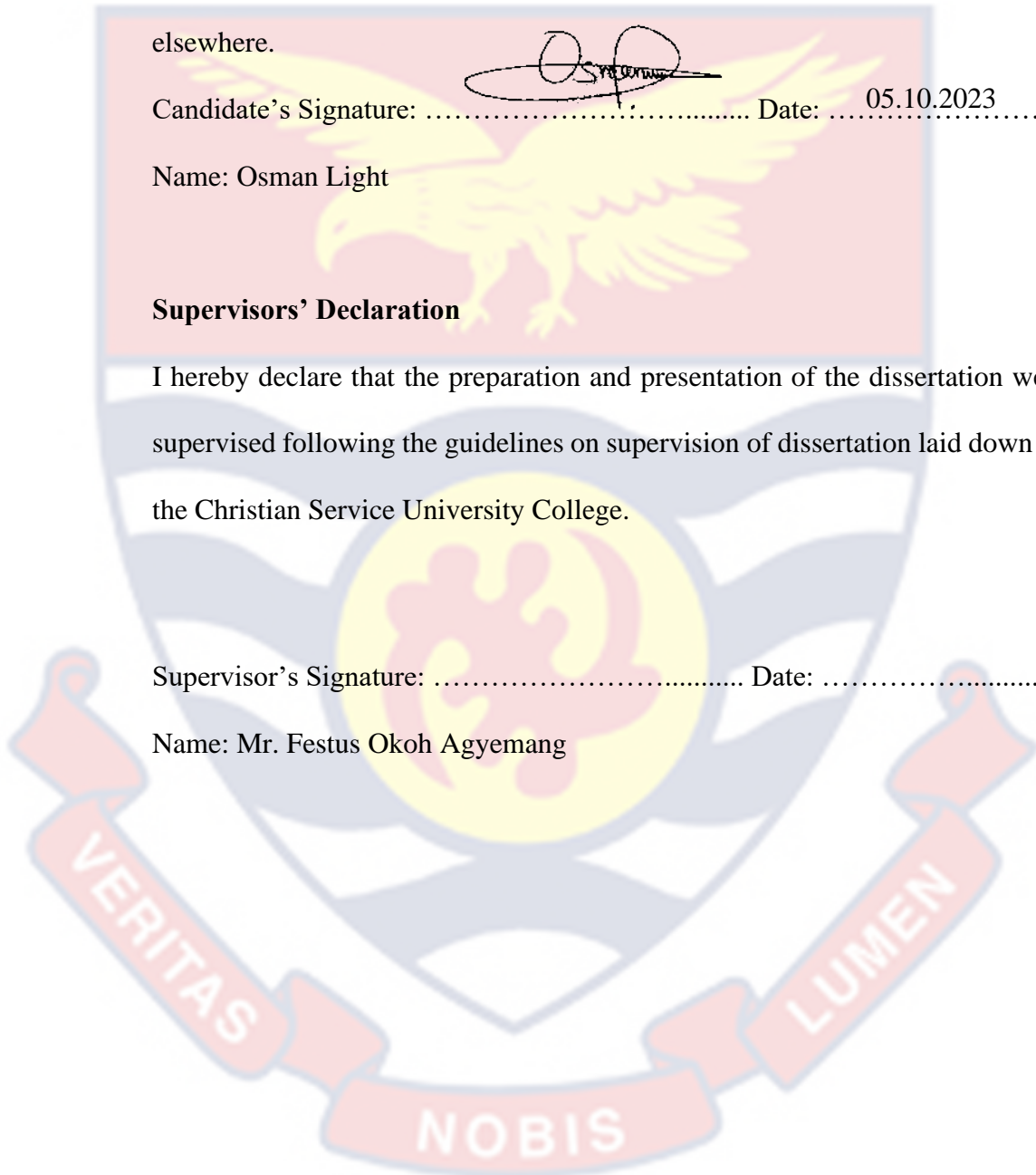
Name: Osman Light

### Supervisors' Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised following the guidelines on supervision of dissertation laid down by the Christian Service University College.

Supervisor's Signature: ..... Date: .....

Name: Mr. Festus Okoh Agyemang



## ABSTRACT

This study examined the role of professional ethics in the relationship between monitoring and evaluation, and project success among MMDAs in the Central Region. The theoretical foundation was built from the agency theory and the theory of change. In terms of methods, the study employed the positivist paradigm and the approach was quantitative. The design was explanatory and the population was planning officers, heads of works, auditors, budget officers, finance officers, social welfare and community development officers among MMDAs in Central Region. The sample size was 111 officers and the sampling technique was randomisation using excel. The data collection instrument was a structured questionnaire. The data processing software was SPSS version 25 and SmartPLS version 3; and the data analytical tool was the partial least square-structural equation modelling (PLS-SEM). The study found that monitoring had a negative significant effect on public project success; and evaluation has positive significant effect on public project success. Also, the study found that professional ethics plays a positive significant moderating role in the relationship between monitoring and public project success. Lastly, the study found that professional ethics plays a positive significant moderating role in the relationship between evaluation and public project success even though it reduced the strength of the relationship. In view of the findings, it was recommended that policymakers should consider reviewing monitoring policies to strike a balance between oversight and project success; and that public project evaluation and ethical guidelines for public project management should be institutionalized as a mandatory practice within policy frameworks.

**KEY WORDS**

Monitoring

Evaluation

Professional ethics

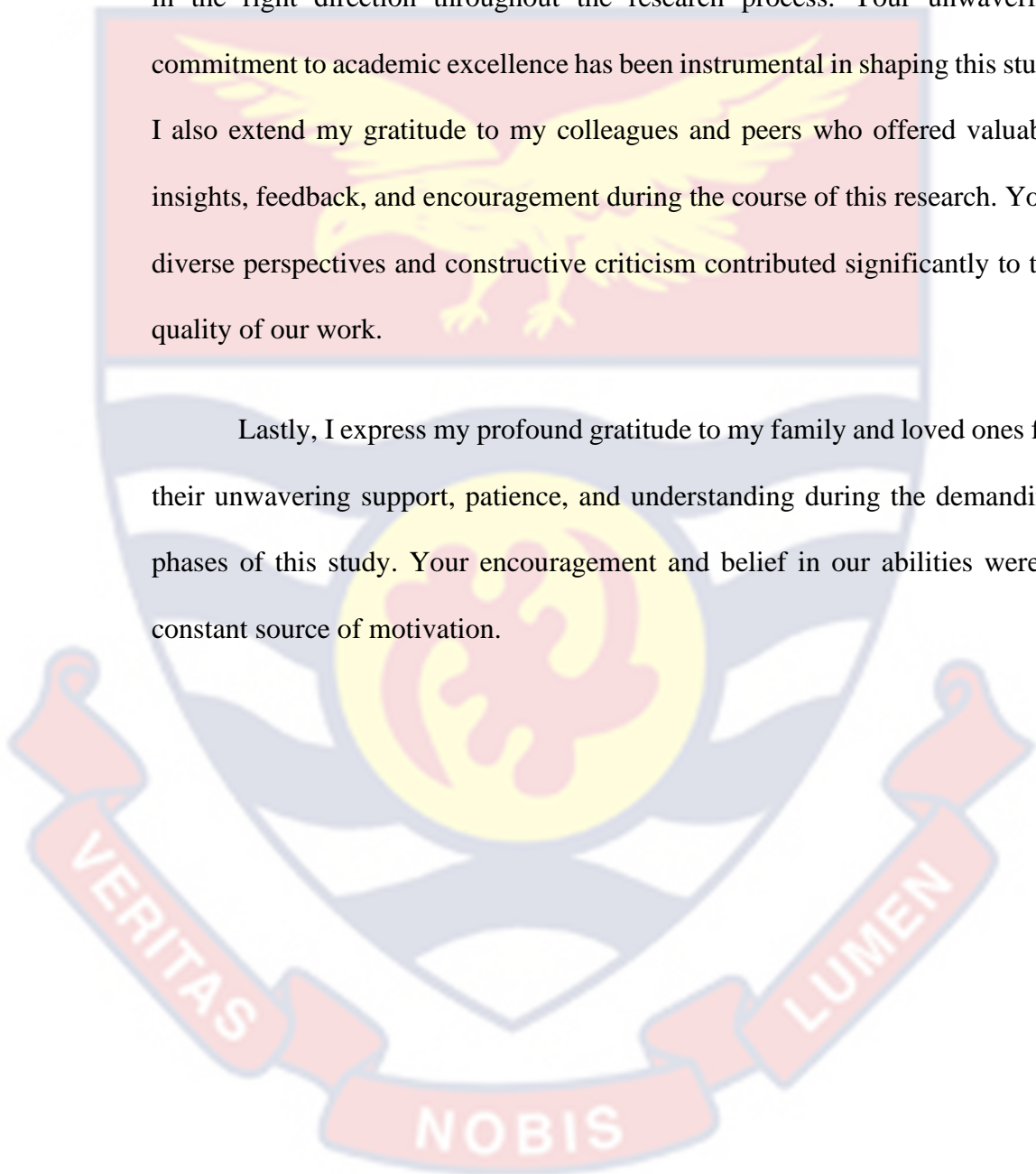
Public project success



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Lastly, I express my profound gratitude to my family and loved ones for their unwavering support, patience, and understanding during the demanding phases of this study. Your encouragement and belief in our abilities were a constant source of motivation.



## DEDICATION

To my wife and first child.



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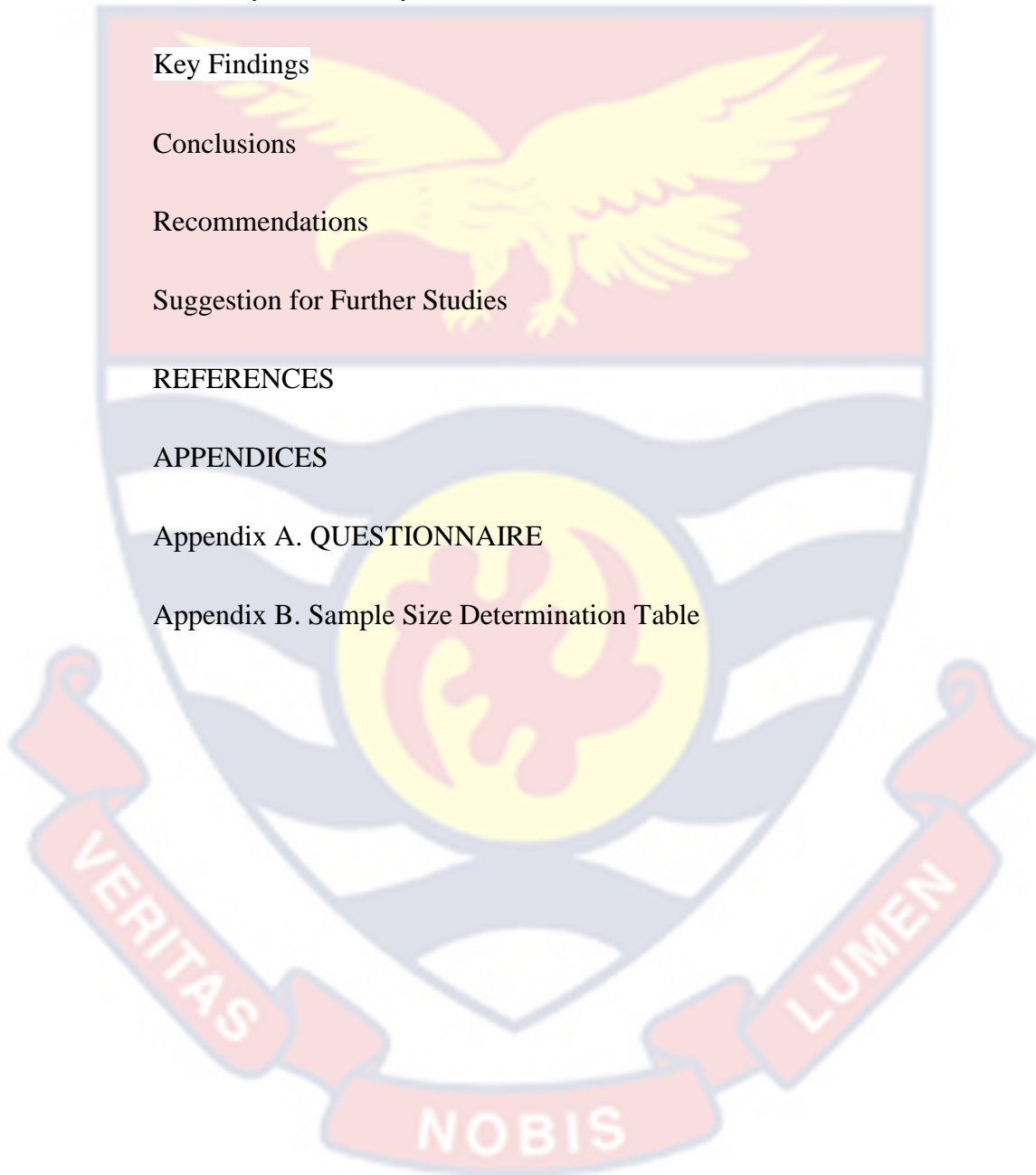
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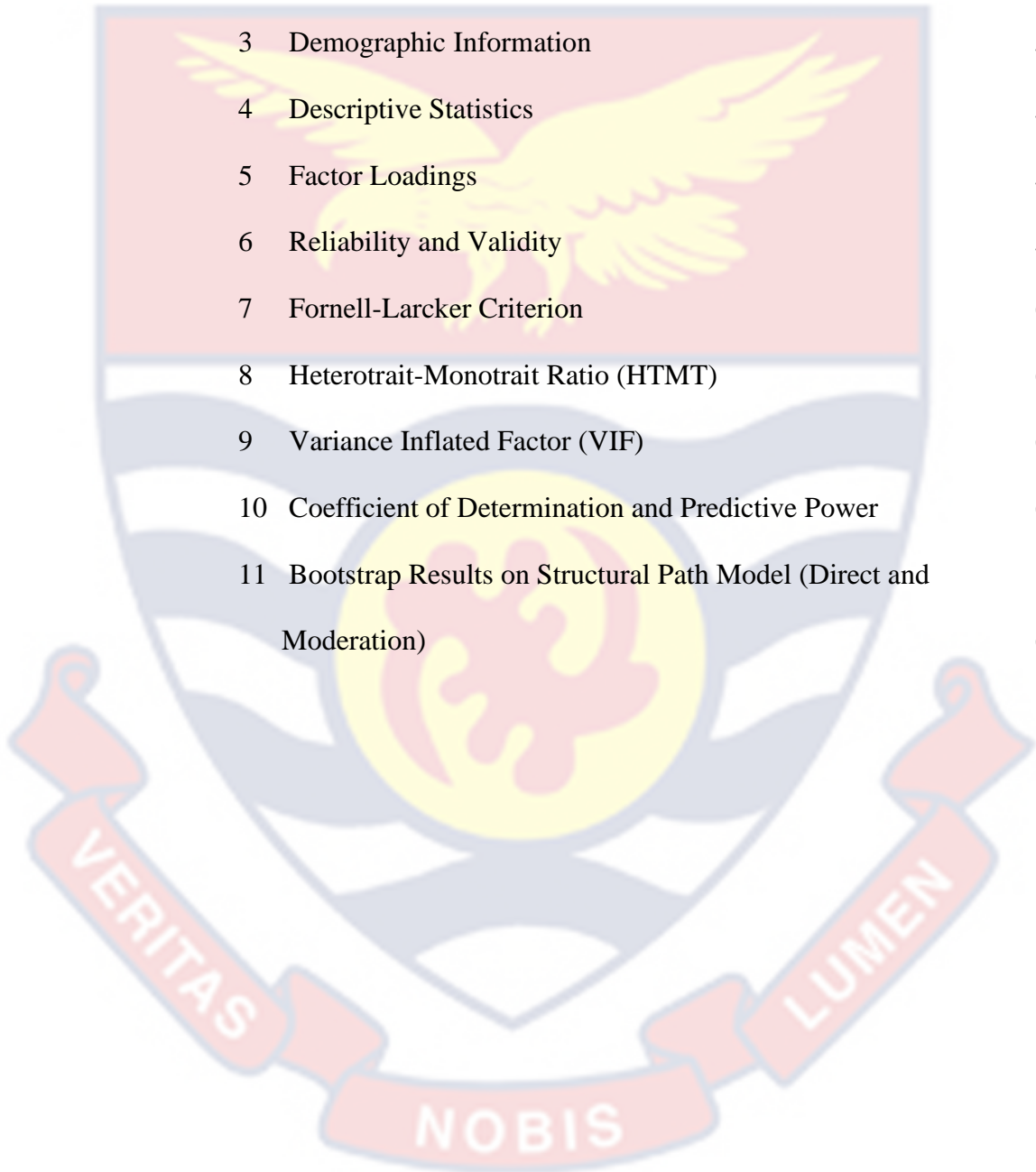
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## CHAPTER ONE

### INTRODUCTION

Public projects, encompassing critical infrastructure development, service delivery, and community enhancement initiatives, form the backbone of sustainable development. Municipal and Metropolitan District Assemblies (MMDAs) play a pivotal role in the planning, execution, and management of these projects, particularly within the Central Region. In recent years, the focus on enhancing the quality and impact of public projects has prompted extensive research into the factors that influence their success. Two prominent dimensions that have come under scrutiny are the processes of monitoring and evaluation. Monitoring involves the continuous tracking of project activities and performance indicators, while evaluation entails a systematic assessment of a project's outcomes and impacts.

However, the relationship between monitoring, evaluation, and public project success is not always straightforward. Recent studies have revealed contrasting outcomes, with monitoring sometimes having a negative effect on success, while evaluation can yield positive results. Moreover, the ethical dimensions of project management have gained recognition as a wide array of values, norms, and principles guiding the conduct of individuals involved in monitoring and evaluation of public projects, including MMDA officials.

#### **Background to the Study**

Globally, governments spend huge sums of money in embarking on public projects. Governments investments in roads, schools, markets, hospitals, electricity, and water are pragmatic steps to achieve the sustainable

developments goals by 2030 (Trade and Development Board, 2022). Globally, investment in these projects is over USD 95 trillion (OECD, 2019). In 2022, government expenditure on public projects was estimated to \$36.5 billion in the United States of America (Office of Management and Budget-USA, 2022); £678 billion in the United Kingdom (Infrastructure and Projects Authority-UK, 2022), and over \$9 billion sub-Sahara Africa (Center for Global Development, 2022). This establishes the efforts that nations are making to enhance the standard of living of their citizenry.

In Ghana, government expenditure in public projects in 2022 was estimated to be over GHS 7,839 million (Ministry of Roads and Highways, 2022). This therefore call for mechanisms and systems that ensures public project success. Public project success is achieved when the project meets its goal and objectives within the stated budget and schedule (Oh, Lee & Zo, 2019). Furthermore, public project success is attained when the executed projects deliver benefits that meet the expectations of its beneficiaries, stakeholders and funding body (Irfan et al., 2021). In this study, public project success consists of two components, namely success of the project itself, and client success. Success of the project itself includes delivering the project within the expected cost, time and scope. Client success deals with the use, satisfaction and effectiveness of the project in benefiting its intended users.

To ensure public project success, projects must be monitored and evaluated (Kabeyi, 2019; Kanyamuna, 2019; Kelly, Goodall, & Lombardi, 2022). This philosophy is supported by the Agency Theory and Theory of Change that projects are more likely to achieve its intended goal when inputs, and activities are monitored, and outputs and outcomes are evaluated (Jensen,

1983; Jensen & Meckling, 1976; Weiss, 1995). Project monitoring ensure project success by tracking projects metrics, progress and associated task to ensure that everything is done within budget, cost and according to the project requirements and standards (Kissi, et al., 2019; Fitriani et al., 2020; Kerzner, 2022).

Moreover, project evaluation influences project success through systematic and objective assessment of ongoing or completed projects (Boadu & Ile, 2019; Matsiliza, 2019; Clemente, 2020). Furthermore, evaluation impacts on project success by measuring whether project inputs lead to the desired outputs and outcomes (Kanyamuna, Kotzé & Phiri, 2019; Scott & Moloney, 2022). According to Rogers (2020) and Cohen Kashi, Rozenes and Ben-Gal (2020) evaluation can improve project success by providing interim feedback on project status. However, for monitoring and evaluation to achieve its intended objectives, professional ethics must be held in high esteem. (World Health Organization, 2021). This is supported by the Agency Theory and Theory of Change that ethics is relevant in monitoring and evaluation (Jensen, 1983; Jensen & Meckling, 1976; Weiss, 1995).

Professional ethics demands that monitoring and evaluation officers demonstrate selflessness, integrity, and transparency during their monitoring and evaluation exercises (Office of the Head of Civil Service-Ghana, 1999). If done, monitoring and evaluation activities can produce true and reliable data on the status of public projects (Maramura & Shava, 2021; Picciotto, 2021).



## Statement of the Problem

Globally, 66% of projects results in failure to meet cost, time and qualitative objectives (Logikal, 2020). Governments in both developed and developing have experienced project failure in different proportions (Eja & Ramegowda, 2020). Public project failure is high in Africa, of which Ghana is not an exception. Many public projects in Ghana has not been a success (Damoah & Kumi, 2018; Damoah & Akwei, 2017). Central Region, ranked as the 5<sup>th</sup> poorest region in Ghana according to multidimensional poverty index (Ghana Statistical Service 2020) recorded huge public project failure in the year 2020. According to Auditor General Report (2020), the cost of abandoned and delayed projects in the Central Region amounted to GH¢4,268,439.82. This is a big loss to the region and the Government of Ghana. This failure in public projects has mild down the rate of economic growth and development in the region.

Public project failure in Ghana, including Central Region has been partly attributed to poor monitoring and evaluation practices on the side of public officials (Auditor General Report, 2020). In view of that government and other stakeholders have developed various interventions in a form workshops, seminars where public officials are exposed to trainings and materials on effective monitoring and evaluation practices. Despite these efforts, public project failure continue to exist (Auditor General Report, 2021). For instance, the Auditor General Report (2021) reported that the cost of abandoned and delayed projects in the Central Region increased to GH¢5,948,823.30.

This makes it unclear as to why projects continue to fail despite monitoring and evaluation. However, United Nations Report (2000) and Buye (2021) have indicated that just monitoring and evaluation may not be enough to achieve project success, but the ethics applied in the process plays a key role. This is supported by the Agency Theory and the Theory of Change that for monitoring and evaluation to contribute to the achievement of project success, monitoring and evaluation officials must behave ethically in executing their responsibilities (Jensen, 1983; Jensen & Meckling, 1976; Weiss, 1995).

Despite the above, studies have mostly paid attention to the role of monitoring and evaluation in public projects success (Boadu & Ile, 2019; Chachu, 2019; Andam & Kissi, 2021; Adanusa & Kissi, 2021; Asantewaa & Acheampong, 2021; Akanbang & Abdallah, 2021). However, there exists a gap on the role that professional ethics play in this quest. It is against this backdrop that this study sought to examine the role of professional ethics in the relationship between monitoring and evaluation, and project success in the Central Region.

### **Purpose of the Study**

This study sought to examine the role of professional ethics in the relationship between monitoring and evaluation, and project success in the Central Region.

### **Research Objectives**

Specifically, the study sought to:

1. examine the effect of monitoring practice on public project success,

2. analyse the effect of evaluation practice on public project success,
3. examine the role of key professional ethical standards in the relationship between monitoring and public project success, and
4. assess the role of key professional ethical standards in the relationship between evaluation and public project success.

### **Hypotheses**

The following hypotheses were formulated from the literature review.

H<sub>1</sub>: Monitoring has a significant relationship with public project success.

H<sub>2</sub>: Evaluation has a significant relationship with public project success.

H<sub>3</sub>: Key professional ethical standards play a significant role in the relationship between monitoring and public project success.

H<sub>4</sub>: Key professional ethical standards play a significant role in the relationship between evaluation and public project success.

### **Significance of the Study**

The study on the role of professional ethics in the relationship between monitoring and evaluation (M&E) and project success in the Central Region holds great significance in terms of policy, practice, and existing knowledge.

At the policy level, the findings of this study can have far-reaching implications. Governments and organizations often develop policies and frameworks to guide project implementation and ensure accountability. Understanding how professional ethics influence the relationship between M&E and project success can inform the development and refinement of these policies.

By integrating ethical considerations into policy frameworks, decision-makers can promote responsible and transparent practices that enhance project outcomes.

In terms of practice, this study holds immense value for professionals involved in project management, monitoring, and evaluation. It explores the ethical dimensions of their work and highlights the significance of upholding ethical standards in ensuring project success. The research outcomes can provide guidance to practitioners in the Central Region, helping them navigate ethical dilemmas, establish ethical guidelines, and develop strategies to address potential ethical challenges that may arise during project implementation. By emphasizing the importance of professional ethics, this study contributes to enhancing the professionalism and integrity of individuals engaged in M&E activities.

Lastly, this study's significance extends to the existing knowledge on project management, monitoring, and evaluation. While there is a substantial body of literature exploring these areas, the specific examination of the role of professional ethics in the Central Region context adds a novel dimension to the discourse. By filling this research gap, the study enriches the available knowledge base, enabling scholars and researchers to further investigate the intricacies of professional ethics in relation to M&E and project success. It opens avenues for future studies, fostering a deeper understanding of the ethical considerations and their impact on project outcomes.

## **Delimitations**

The study is a pure primary data work and as well as a quantitative approach. The study only captured, monitoring, evaluation, public project success, and professional ethics. The study area was Central Region. The data procession software was SPSS and SmartPLS, and the data analytical tools were frequencies, percentages, mean, standard deviation and structural equation modelling.

## **Limitations**

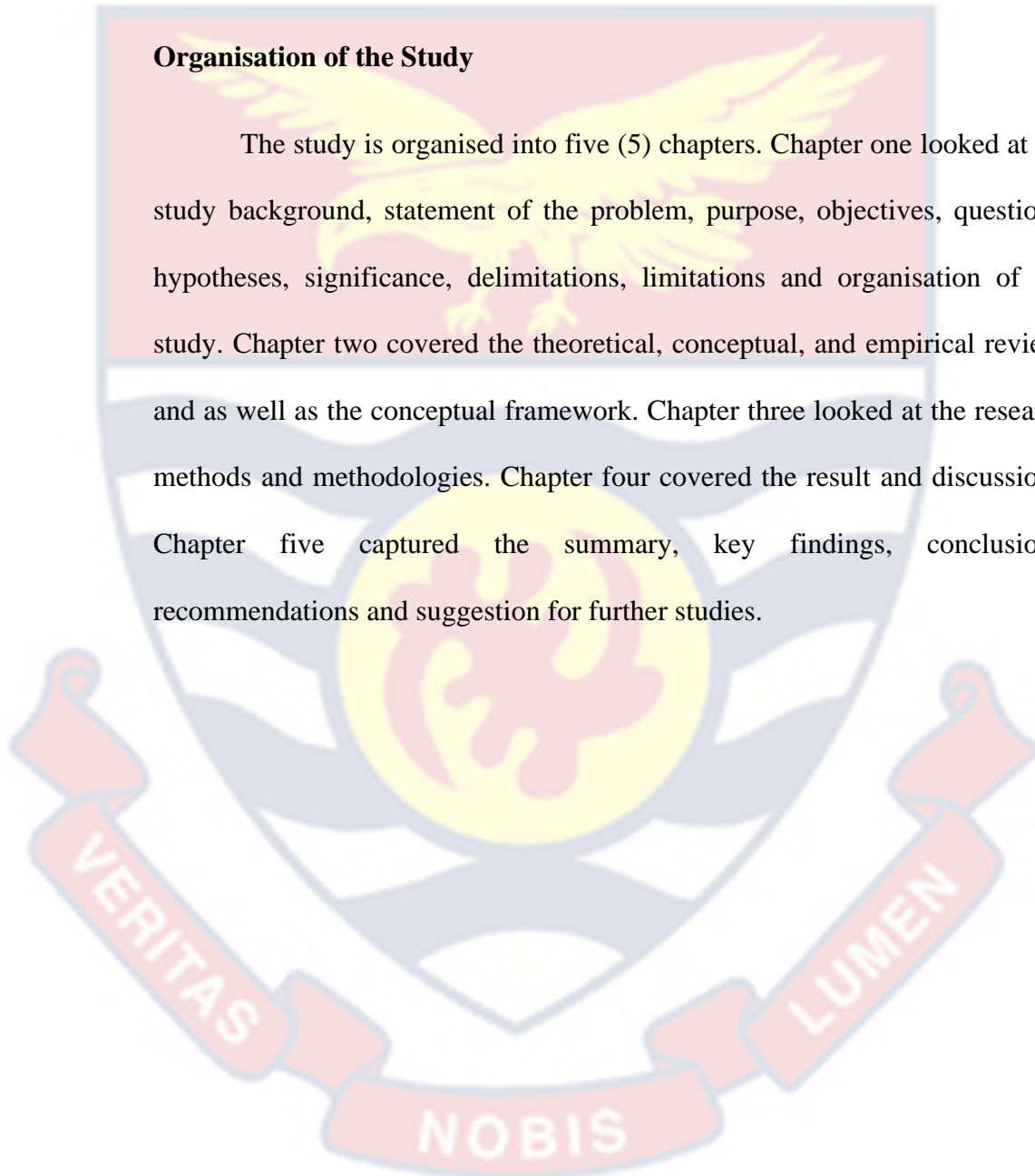
The study examining the role of professional ethics in the relationship between monitoring and evaluation (M&E) and project success in the Central Region has some limitations that need to be acknowledged.

Firstly, the study's sample size is relatively small. It focuses solely on the Central Region, which may not be representative of other regions or contexts. This limited scope restricts the generalizability of the findings and raises questions about whether the results can be applied to other regions with different socio-cultural, economic, and political contexts. A larger and more diverse sample would enhance the study's external validity. Secondly, the data collection process involves surveying participants and relying on their subjective perspectives, which may introduce response biases and inaccuracies. Self-reported data can be influenced by social desirability bias, where participants may provide responses, they believe align with professional ethics rather than reflecting their actual behaviours. This limitation could compromise the validity of the findings and the strength of the conclusions drawn.

Furthermore, the study adopts a cross-sectional design, which captures data at a single point in time. Longitudinal studies that track changes over time would provide more robust evidence and allow for a better understanding of the dynamics at play.

### **Organisation of the Study**

The study is organised into five (5) chapters. Chapter one looked at the study background, statement of the problem, purpose, objectives, questions, hypotheses, significance, delimitations, limitations and organisation of the study. Chapter two covered the theoretical, conceptual, and empirical review, and as well as the conceptual framework. Chapter three looked at the research methods and methodologies. Chapter four covered the result and discussions. Chapter five captured the summary, key findings, conclusions, recommendations and suggestion for further studies.



## CHAPTER TWO

### LITERATURE REVIEW

This chapter of the work reviewed literature relevant to the study objectives. It covered the theoretical review, conceptual review, empirical review and the conceptual framework. The theoretical review presented on the theories that underpinned the work. The conceptual review reviewed literature pertaining to monitoring, evaluation, project success and professional ethics. The empirical review reviewed literature with reference to each of the study objectives. The conceptual framework depicted the pictorial view of the study objectives alongside with the theoretical and empirical reviews.

#### **Theoretical Review**

The study adopted the Agency Theory and the Theory of Change.

#### **Agency Theory**

In human activity, principal-agent relationships are typical (Mitnick, 2015). The Agency theory was developed as a result of the agency problems within organisations. Agency problem arose as a result of the evolution of business organisations (Jensen & Meckling, 1976). Every organisation in one way or the other has suffered some form a problem related to agency. This agency problem manifest in different forms and ways. The existence of different form of problems in organisational behaviour, economics and social sciences have made the agency theory an important theory in organisational literature (Tate at al, 2010, Panda & Leepsa, 2017). It is opined that the agency theory

assumes that there is some sort of self-interest on the path of the agent in order for them not to act on behalf of the principals' interest (Adams 1994).

The theory, calls on agents to either surrender their interest or to function in ways that concurrently will maximise their personal and employers' interest.

In this relationship, the principal has employed the agent to perform duties which the principals are unable to perform. The agency theory explains the relationship in which one person or entity (the agent) acts for another (the principal) and typically under conditions of information asymmetries favouring the agent. As a result, this has called for some checks. This is the basis of internal auditing. The study is situated in the framework of agency theory. The theory provides a useful theoretical framework for the study of the internal evaluation practices in project because it unravels the potential for fraud by agents that robs public organisations of the benefit of the resources. Without proper internal control systems, information asymmetries and self-interest make the owners of resources (the principals) lack reasons to trust their managers (the agents) who are charged with using and controlling those resources.

Thus, to ensure the effectiveness of internal control systems and reduce fraud, principals put in place mechanisms to align the interests of agents with their own interests and to reduce the scope for information asymmetries and opportunistic behaviour. The agency theory also helps to explain and predict the existence of evaluation in public sector organizations. In public organizations there is the potential for conflict in fiduciary and stewardship roles. The fiduciary role involves the relationship between management and shareholders. The stewardship role involves the relationship between management and the organization as an entity and the multiple stakeholders involved with the



organization (Preston, 1998). Due to the separation of ownership from control, varying risk preferences, information asymmetry, and moral hazards, there is a conflict of interest and agency cost. Numerous alternatives, including strong ownership control, managerial ownership, independent board members, and various committees, have been listed in the literature as ways to handle agency conflict and its cost.

Agents are required to behave in their principals' best interests, according to the agency theory, which looks at the relationship between two contracting parties (Njaramba & Ngugi, 2014). An agency relationship is described as a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf and which involves delegating some decision-making authority to the agent (Jensen & Mickling, 1976). Additionally, an agency relationship is created when a person (the principal) authorizes another person (the agent) to act on his or her behalf. Issues arise in this relationship based on the risk that the agent will act opportunistically and not act in the best interests of the principal. Therefore, a contract or agreement should be designed to eliminate or reduce the potential of the agent acting opportunistically.

According to the theory, the principle and the agent are both utilities maximisers with independent goals, and because of information asymmetry, the agent will not always behave in the principal's best interests. By giving the agent the right incentives and incurring fees known as agency costs, the principal can reduce the divergence of interests (Jensen & Mickling, 1976). In order to prevent the agent from engaging in any inappropriate behaviour, the principals usually incur cost in order to monitor and also have some checks on the agent

to act in the interest of the principal (Jensen and Mickling). The principal-agent relationship is more or less a prototypical representation of the relationship between shareholders (principals) and management (agents) in the management literature.

According to Cyert and March (1992), the formation is a typical one for an employment contract as well as other organisational relationship. The theory deals with the information issues brought on by such contracts within organisations. The theory's main goal, according to Eisenhardt (1989, p. 58), is to “determine the most efficient contract governing the principal-agent relationship given assumptions about people (self-interest, bounded rationality, risk aversion), organizations (goal conflict among members), and information (information is a commodity that can be purchased)”. The theory also explains the reward system that may encourage and guarantee that the agents will operate in the principal's best interest. The concept of agency is contentious. As stated by supporters, it is either a “powerful” organizational theory (Jensen, 1983) or it provides “unique insight into information systems, outcome uncertainty, incentive, and risk” (Eisenhardt, 1989, p.57).

Aside the theory being a powerful theory in organisations, the agency theory is criticized for solely relying on a limited premise about how people behave. Agency theory is based on the notions for recognizing a more positive perspective of management intentions and behaviour which portrays managers as inherently tending to act in opportunistic, self-serving, guileful, and lazy ways-at cost to their employers (Smith, 2011). More emotionally, Perrow (1986) considered the theory as dehumanising and even “dangerous. It was arguing that every theory can provide certain insights into the phenomena under

investigation. The problem is that organisation theorists often tend to try to apply a certain theory to every organisation in every setting. It is the context of the social phenomena under investigation that matters. It is true that by overemphasising agency costs, agency theory ignored the broad cultural, social and political background in which social actors find themselves. Agency theory, however, undoubtedly offers insights into certain contexts in which interests are, to a great degree, in conflict.

In the context of the present study, agencies are contracted to handle public projects. In this context, the agencies contracted serves as agents executing the projects on behalf of the principals, in this case the government. This has resulted in many *principal-agent problems associated with projects*. To resolve the agency dilemma, there must be a monitoring mechanism to ensure that the agents (contractors or implementation body) acts according to specifications in the project plan and contract. Monitoring therefore becomes an essential tool to ensure that projects are completed within cost, time, quality, specification, and meet beneficiary satisfaction and acceptance.

### **Theory of Change**

A theory of change is a deliberate model of how a project, policy, strategy, program, or other initiative contributes to the desired result through a series of early and intermediate results. The complexities of societal change are facilitated by change theories. A theory of change is a deliberate model of how a project, policy, strategy, program, or other initiative contributes to the desired result through a series of early and intermediate results. The intricacy of societal change is negotiated with the aid of change theories. The theory of change, as

popularized by Weiss (1995), is a set of presumptions that explain both the linkages between program activities and outcomes that occur at each stage of the process as well as the mini-steps that lead to the long-term goal.

The theory assists management in thinking through and articulating the presumptions and enablers that surround their projects and explains why those efforts will result in the intended outcome (Rogers, 2014). In other words, public organisations are more likely to be able to sustain themselves when these enablers are present. Monitoring and evaluation, according to Owusu-Manu et al. (2021), is a facilitator for a project's environment so investigated the connection between public projects performance outcomes and evaluation processes. According to the report, public project with regular evaluation procedures perform better financially and operationally than those without them.

Studies (Weiss, 1995; Anderson *et al.*, 2015; and Bardach, 2015) have found that ToC technique is frequently utilized in development practice for a wide range of applications, including M&E, advocacy and communication, and resource mobilization. The Theory of Change (ToC) is used in program design to aid stakeholders in comprehending the program's logical structure, including its inputs, actions, outputs, and results. According to White (2018), it's critical to evaluate the variables that result in weak or missing links in corporate processes or procedures. Intensive engagement and knowledge development to enhance business operations may result from this examination.

The application of a complexity-informed strategy is a more recent development in the theory of change. This strategy acknowledges that programs and treatments function in complex systems, where there are frequently a

number of interrelated factors that influence outcomes. This method fosters a more iterative and adaptable approach, such as monitoring and evaluation to program planning and implementation, since it emphasizes the inherent uncertainty and unpredictability of complex systems (Davies *et al.*, 2018).

The theory wants to push management to create clear strategies and investigate whether the plans are backed up by data. White (2018) contends in a similar manner that the theory of change offers a unifying framework to address concerns such as "not just the question of what works, but also how, where, for whom, and at what cost?" All practical manuals emphasize the ToC's role in defining success indicators that may later serve as the basis for monitoring. Rehfuess *et al.* (2018) offer a more formal taxonomy of ToC approaches, separating approaches focused more on describing the system in which participants, the intervention, and its context interact from those undertaken prior to an intervention and those intended to support adaptive learning through an intervention, more or less iteratively; and approaches based more on describing the system in which the interaction between participants, the intervention and its context takes place, as opposed to those focused on the causal pathways leading from the intervention to multiple outcomes.

The theory of change also enables stakeholders to pinpoint potential roadblocks to success and create plans of action to overcome them (Wholey *et al.*, 2010). The theory of change emphasizes the use of performance indicators to track program goals' advancement. These indicators should be precise, quantifiable, and pertinent to the program's goals. They should also be checked often to gauge progress toward the intended results. The theory of change

highlights the significance of using qualitative data to capture the experiences and perspectives of program participants and other stakeholders in addition to quantitative indicators (UNICEF, 2016). The theory of change has been criticized for often being overly straightforward and linear and for failing to adequately account for the complexity and unpredictable nature of real-world programs and interventions (Davies *et al.*, 2018).

In the context of this study, for public projects to be a success, project implementation must be evaluated as well. There must be evaluation of ongoing and completed projects. The theory of change aids in determining the most significant effects and results of a program or intervention, which can then be watched over and assessed to see whether the desired goals are being reached. Data collection and analysis related to program inputs, activities, outputs, outcomes, and impacts are part of the monitoring process. Utilizing this information for evaluation entails determining the program's or intervention's effectiveness and formulating suggestions for future advancements.

### **Conceptual Review**

The conceptual review focused on monitoring and evaluation.

### **Monitoring**

Keeping control and accountability in place inside businesses requires monitoring (Ross, Pillitteri, Dempsey, Riddle, & Guissanie 2019). It enables managers to monitor development, spot departures from intended results, and implement remedial measures (Bettencourt, 2018). According to Androniceanu (2021), monitoring also improves legitimacy, trust, and transparency in both the public and private sectors. Monitoring acts as a tool for governance, risk

management, and organizational learning by delivering accurate information (Aziz & Dowling 2019). According to Paniagua and Sapena (2022), it offers stakeholders insightful information about the efficacy and impact of interventions or projects.

According to a World Bank report from 2023, monitoring is a continuous function that uses the systematic collection of data on predetermined indicators to give management and the key participants in an ongoing development intervention indicator of the degree of progress and achievement of goals as well as progress in the use of allocated funds. The act of measuring and logging pertinent metrics and indications to learn more about the functionality, availability, and general health of computer systems, networks, and applications is known as monitoring. In order to view data and produce useful information for troubleshooting, capacity planning, and performance optimization, monitoring tools and techniques are used.

Monitoring includes a variety of elements in the business setting, including operational effectiveness, regulatory compliance, and financial performance. Organizations can detect fraud, reduce risks, and make better decisions with the help of effective monitoring systems (Kwon & Johnson, 2019). Real-time monitoring of cutting-edge technologies, such as artificial intelligence and data analytics, enables proactive management and quick reaction to developing problems. In order to guarantee patient safety, high-quality care, and effective resource management, monitoring is essential in healthcare settings (Burström & Tao, 2018). Monitoring clinical results, protocol observance, and patient satisfaction are all part of it. In addition, monitoring supports public health initiatives, supports early illness epidemic

identification, and enables evidence-based policymaking (Chen & Gotway Crawford, 2018). Monitoring is essential in the field of environmental management for determining the health of ecosystems, tracking pollution levels, and gauging the success of conservation efforts (Carranza *et al.*, 2020). It supports supporting sustainable activities, identifying ecological risks, and comprehending environmental repercussions (Borgmann *et al.*, 2018).

Environmental monitoring frequently uses remote sensing, sensor networks, and geographic information systems (GIS) to collect data and assist in decision-making. In many areas, monitoring acts as a fundamental control, accountability, and decision-making process. Its importance stems from its capacity to deliver trustworthy information, improve transparency, and facilitate proactive management. Monitoring is essential for assuring compliance, enhancing performance, and promoting sustainable practices in the business, healthcare, and environmental sectors. The capabilities and applications of monitoring are anticipated to grow as technology develops, giving firms crucial information for efficient management and decision-making. In monitoring, several approaches are used based on the situation and goals. Real-time monitoring is one often employed technique that entails ongoing data gathering and processing (Ding *et al.*, 2019). In order to record and process data in real-time, real-time monitoring makes use of technologies like sensors, the Internet of Things (IoT), and data analytics (Kaur *et al.*, 2021). This enables prompt interventions and feedback. Periodic monitoring is a different process in which data is gathered on a regular basis. With the help of this strategy's trend analysis and comparison over time, long-term performance can be better understood (Li



et al., 2020). Surveys, interviews, and structured observations are frequently used in periodic monitoring to collect data at preset intervals (Yang *et al.*, 2019).

## Evaluation

Evaluation is a critical process used to assess the effectiveness, efficiency, and impact of programs, interventions, policies, or projects. It involves the systematic collection and analysis of data to determine whether the intended outcomes and objectives have been achieved. According to Chen *et al.* (2018), evaluation is the methodical and unbiased examination of the conception, execution, and outcomes of a program or initiative. It supports decision-making, learning, and accountability, among other things. The value, merit, and worth of a program or intervention are communicated to stakeholders through evaluation. In the end, it informs future planning and decision-making processes by assisting in the identification of strengths, weaknesses, and areas for progress (Patton, 2018). There are numerous different evaluation methods, including formative, summative, and impact evaluation. In order to enhance a program's design and efficacy, the formative evaluation focuses on gathering feedback and data throughout program development and implementation.

The summative evaluation assesses the overall impact and outcomes of a program or intervention after it has been finished (Rossi *et al.*, 2019). Impact evaluation aims to establish the causal relationship between an intervention and its observable effects using experimental or quasi-experimental approaches. Through assessment, a critical activity, stakeholders can assess the effectiveness, efficiency, and impact of programs, initiatives, policies, or projects. Among other things, it promotes accountability, learning, and decision-making.

Evaluation plays a critical role in guiding planning, enhancing outcomes, and guaranteeing the effective use of resources in areas including education, public policy, and healthcare. By systematically collecting and analyzing data, evaluation provides valuable insights and evidence to support evidence-based decision-making and continuous improvement. It helps stakeholders understand the extent to which objectives are being achieved, identifies areas for improvement, and informs future planning and resource allocation (Bamberger *et al.*, 2019).

Evaluation is used to assess the effectiveness, efficiency, relevance, and sustainability of initiatives, providing evidence for decision-makers to make informed choices (Rossi *et al.*, 2018). Evaluation is also relevant in organizational settings to assess the effectiveness of organizational processes, policies, and strategies. It involves measuring organizational performance, employee satisfaction, and customer feedback. Evaluations in organizations aim to identify areas for improvement, enhance organizational effectiveness, and support evidence-based decision-making (McDavid *et al.*, 2018). Research highlights the importance of building evaluation capacity within organizations and using evaluation findings to drive organizational learning and improvement (Preskill & Beer, 2022). Studies emphasize the need of developing organizational assessment capability and utilizing evaluation results to spur organizational learning and development (Preskill & Beer, 2022).

### **Professional Ethics**

Ethics, originating from the Greek word "èthos," which refers to the moral nature defining an individual or a group, can be considered as the science

of morals (Moore, 2004). In practical terms, applied ethics utilizes the principles of moral science to examine the real-world moral challenges, dilemmas, and issues that people encounter in their daily lives (Singer, 2016). It also seeks to develop tools and methodologies to assist individuals in making ethical decisions (Legault, 1999). Within the realm of applied ethics, professional ethics represents a significant branch (Brien, 1998). It delves into the values and guiding principles that should govern the behaviour and decision-making processes of individuals within a specific profession (Gasper, 2004). In professional and academic discourse, the question of what it means for an accountant to "do the right thing" has traditionally been approached from two main perspectives (Airaksinen, 2012).

One perspective is rooted in a rules-based approach, primarily drawing from deontological ethics. This viewpoint emphasizes adherence to rules and principles as the foundation for ethical conduct (Brooks & Dunn, 2020). On the other hand, a character-based perspective, often associated with virtue ethics, focuses on the personal qualities and character traits of the ethical professional. In this context, an ethical professional is typically described as a person of integrity (Neu et al., 2003; Richardson, 1989; Spence and Brivot, 2011). Such an individual is expected to be independent, truthful, courageous enough to speak truth to power, and dedicated to serving the public interest. Furthermore, the ethical professional is portrayed as someone who not only complies with the laws, regulations, and ethical codes governing their professional practice but also upholds them diligently (Preston et al., 1995).

In the context of Islamic work ethics, Rokhman (2010) posits six key principles: work, honesty, freedom in economic endeavors, justice and protection, generosity, and the avoidance of usury in trading. Al-Qaradawi (2013) in his exploration of business ethics in Islam, underscores its significance in averting unnecessary disputes. He identifies four fundamental human economic activities: production, consumption, finance, and distribution. These activities, according to Al-Qaradawi, should be guided by a shared value system, fostering a collective sense of calm and serenity.

### **Project Success**

Project success is a topic frequently discussed in project management research, and researchers are not in agreement as to the definition of the construct project success (Pinto & Slevin, 1988). Different research findings show that project success is a multi-dimensional concept: it means different things to different people and the context is crucial (Jugdev & Müller, 2005). Since the term “project success” can be viewed from different angles referring to various classifications and interpretations propounded in relevant literature (Davis, 2014; Unterkalmsteiner *et al.*, 2012).

Assessing project success through project success criteria allows for comparing projects and acts as the basis for future developments of the project management process (Lam *et al.*, 2008). Furthermore, it plays an important role in the selection of future projects, as only those projects providing the potentially highest benefit to the organization’s success will be chosen (Piscopo *et al.*, 2010). Ashley *et al.* (1987) found that success factors and success criteria can be intertwined as direct cause-effect relationships. For example, there is such a relation between the technical uncertainty and the end user satisfaction.

Since the assessment of project success in different fields of application is in the spotlight of our study, only project success criteria are considered. Factors to reach project success are not taken into account because they represent.

On the other hand, project success can be understood as the success of the developed product (Andersen, 2014; Munns & Bjeirmi, 1996). Besides time, cost and budget aims, the focus is set on the achievement of organizational goals, the project purpose and the customer's satisfaction with the product. An additional criterion covers the evaluation, whether the developed product can be used by end-users and ultimately provides value to the (Baccarini, 1999). Cooke-Davies (2007) suggests adding a third dimension to the construct of project success: consistent project success. Consistent project success assesses whether the right projects were done right and in the right sequence to generate competitive advance. The present paper considers consistent project success and the associated criteria as part of the success of the developed product levers to increase the probability of project success and cannot be used to evaluate the success.

### **Empirical Review**

#### **Monitoring and Public Project Success**

Monitoring practices are essential for effective project management in the public sector. Proper monitoring enables stakeholders to track project progress, ensure alignment with objectives, and implement corrective measures when necessary (Alizadehsalehi, & Yitmen, 2023). It enhances transparency, accountability, and governance mechanisms, which are critical for achieving project success (Xiong, Chen, Wang, & Zhu, 2019). Several key monitoring

practices contribute to the success of public projects. Boström-Einarsson *et al.* (2020) emphasize the importance of establishing clear project objectives and performance indicators that can be measured and tracked throughout the project lifecycle. Regular reporting, documentation, and communication with stakeholders are vital for ensuring transparency and accountability (Pärl, Paemurru, Paemurru, & Kivisoo, 2022)

Advancements in technology have significantly influenced monitoring practices in public projects. The use of digital tools, such as project management software and data analytics, enables real-time tracking of project progress, resource allocation, and risk assessment (Abioye *et al.*, 2021). Geographic Information Systems (GIS) and remote sensing techniques provide valuable data for monitoring environmental impacts and infrastructure development (Kahangwa, Nahonyo, & Sangu, 2020). Research has consistently shown a positive relationship between effective monitoring practices and project success. Sanchez, Bonjour, Micaelli and Monticolo (2020) highlight that proper monitoring improves project performance, reduces cost overruns, and enhances the likelihood of achieving desired outcomes. Regular monitoring helps identify risks and allows for timely intervention, thereby increasing the chances of project success (LeClaire, 2020).

Several key monitoring practices have been identified as influential in achieving public project success. Regular monitoring and reporting of project performance enable timely identification of deviations from plans, allowing for proactive decision-making and intervention (Mutwiri, 2021). Monitoring practices should include the measurement of both quantitative indicators (e.g., budget utilization, schedule adherence) and qualitative indicators (e.g.,

stakeholder satisfaction, and quality of deliverables) (Cruz Villazón *et al.*, 2020). Additionally, monitoring practices that incorporate feedback mechanisms and learning processes contribute to project success by enabling continuous improvement and knowledge sharing (Sergeeva & Duryan, 2021). Research consistently suggests a positive relationship between effective monitoring practices and public project success. Proper monitoring helps in the early identification and management of risks, reducing the likelihood of cost overruns, delays, and project failure (Abdel-Monem, Alshaer, & El-Dash, 2022).

Monitoring practices that facilitate transparency and accountability also contribute to successful project outcomes by reducing corruption and increasing public trust (Martin *et al.*, 2022). Effective monitoring practices play a crucial role in identifying and mitigating risks throughout the project lifecycle. Regular monitoring allows project managers to detect potential issues early on, enabling proactive intervention and corrective actions (Parsamehr *et al.*, 2023). By closely tracking project progress, deviations from plans can be identified, and appropriate measures can be implemented to address these deviations, minimizing their impact on project success (Hartmann *et al.*, 2021). Timely risk mitigation contributes to the avoidance of cost overruns, delays, and other project setbacks.

Monitoring practices are instrumental in ensuring efficient resource allocation and cost control in public projects. By closely monitoring budget utilization and expenditure patterns, project managers can identify areas of potential overspending or inefficiencies and take corrective actions (Kose, Bakici & Hazir, 2022). Regular monitoring helps ensure that resources are allocated optimally, preventing unnecessary cost escalation and ensuring the

project stays within the allocated budget (Trivedi & Patel, 2021). This contributes to the overall financial success of the project and enhances its feasibility and sustainability. By providing a mechanism to track and report project progress, monitoring practices enhance stakeholder confidence and trust (Trivedi & Patel, 2021). Transparent monitoring processes foster public accountability and reduce the potential for corruption or mismanagement of public resources (Chen & Neshkova, 2020). When stakeholders perceive that monitoring practices are robust and reliable, they are more likely to support and engage with the project, leading to increased public trust and support (D'agostino *et al.*, 2020).

Monitoring practices enable project managers and stakeholders to make timely decisions and interventions when necessary. By monitoring project performance indicators and milestones, project managers can identify areas where intervention is required to address deviations or potential risks (Sergeeva, & Duryan, 2021). Timely decision-making allows for swift action, which can prevent further issues from arising and help maintain project momentum (Trivedi & Patel, 2021). This proactive approach to monitoring contributes to the overall success of the project by minimizing disruptions and ensuring project objectives are met.

Monitoring practices facilitate learning and continuous improvement in public projects. By analyzing monitoring data and performance feedback, project managers can identify areas for improvement and implement changes to enhance project outcomes (Kose, Bakici, & Hazir, 2022). Lessons learned from monitoring previous projects can be applied to future projects, leading to improved project planning, implementation, and success rates (Abdel-Monem,



Alshaer, & El-Dash, 2022). Monitoring practices that incorporate learning mechanisms and knowledge sharing contribute to organizational learning and the development of best practices for effective project management. By prioritizing and implementing robust monitoring practices, project managers and policymakers can increase the likelihood of achieving desired project outcomes and delivering successful public projects.

### **Evaluation and Public Project Success**

Evaluation practices play a critical role in assessing the effectiveness and impact of public projects. Evaluations provide valuable insights into project performance, outcomes, and lessons learned, ultimately contributing to project success. Evaluation practices are essential for effective project management in the public sector. They help stakeholders assess the performance, efficiency, and relevance of projects in achieving their intended objectives (Hamilton *et al.*, 2019). Evaluations provide evidence-based information that can inform decision-making, resource allocation, and policy formulation (Eisman *et al.*, 2020). By systematically assessing project outcomes, evaluations contribute to accountability, transparency, and learning within the public project context.

Several key evaluation practices contribute to the success of public projects. Eisman *et al.* (2020) emphasize the importance of defining clear evaluation criteria and performance indicators that align with project objectives. These indicators should be measurable, specific, and relevant to enable accurate assessment of project outcomes. Regular evaluations at different project stages allow for timely identification of issues, risks, and areas requiring improvement (Sultana, Andersen & Haugen, 2019). Stakeholder engagement is crucial for effective evaluations and project success.

Involving stakeholders in the evaluation process fosters ownership, buy-in, and accountability (Sarriot & Shaar, 2020). Engaging stakeholders, such as project beneficiaries, community members, and policymakers, allows for diverse perspectives, enhances the quality of evaluation findings, and increases the likelihood of incorporating evaluation results into decision-making processes (Hussain *et al.*, 2022). The utilization of evaluation findings is a key factor in determining project success. Evaluation reports should be actionable and accessible, providing clear recommendations for improvement (Abdi *et al.*, 2020). The integration of evaluation findings into project management processes, policy formulation, and resource allocation supports evidence-based decision-making and increases the likelihood of project success (Tucker *et al.*, 2021).

Research suggests a positive relationship between effective evaluation practices and public project success. Fared, Su and Awan (2021) highlight that evaluations contribute to improved project outcomes, enhanced performance, and accountability. Evaluations help identify strengths and weaknesses, enabling project managers to capitalize on successful practices and address areas requiring improvement (Elizabeth *et al.*, 2023). Additionally, evaluations provide a basis for learning and knowledge sharing, fostering continuous improvement in project design and implementation (de Carvalho-Filho, 2020).

Clear evaluation criteria play a significant role in determining project success (Zwikael & Meredith, 2019). Establishing specific and measurable criteria aligned with project objectives enables accurate assessment of project outcomes (Calahorra-Jimenez *et al.*, 2020). Well-defined evaluation criteria provide a framework for evaluating project performance, facilitating

accountability and transparency (Tsalis *et al.*, 2020). Regular evaluations at different project stages provide timely feedback, contributing to project success (Barber *et al.*, 2020). Continuous evaluation helps identify issues, risks, and areas requiring improvement, allowing project managers to take corrective actions promptly (Sanchez *et al.*, 2020). Timely feedback enables project teams to make necessary adjustments, ensuring project objectives are met within the defined timeframe (Barth & Koch, 2019).

Stakeholder engagement is crucial for effective evaluations and project success (Bahadorestani, Naderpajouh, & Sadiq, 2020). Involving stakeholders, such as project beneficiaries, community members, and policymakers, fosters ownership and accountability (Bergmann & Karwowski, 2019). Engaging stakeholders in the evaluation process allows for diverse perspectives, enhances the quality of evaluation findings, and increases the likelihood of incorporating evaluation results into decision-making processes (Iriarte & Bayona, 2020). The utilization of evaluation findings is critical for project success (Iriarte & Bayona, 2020). Evaluation reports should provide clear and actionable recommendations for improvement (Bergmann & Karwowski, 2019). Integrating evaluation findings into project management processes, policy formulation, and resource allocation supports evidence-based decision-making and increases the likelihood of project success (Barber *et al.*, 2020).

The utilization of evaluation findings enhances project outcomes and promotes learning and continuous improvement (Calahorra-Jimenez *et al.*, 2020). Evaluation practices contribute to accountability and learning in public projects (Elizabeth *et al.*, 2023). Evaluations provide a basis for assessing project performance, identifying strengths, and addressing weaknesses

(Sanchez *et al.*, 2020). Transparent evaluation processes foster accountability and ensure that project objectives are met (Zwikael & Meredith, 2019). Moreover, evaluations contribute to organizational learning, allowing project teams to apply lessons learned to future projects, ultimately improving project success rates (Eisman *et al.*, 2020).

### **Professional Ethics in the relationship between Monitoring and Public Project Success**

Public projects play a vital role in societal development and often involve significant investments of public funds. The successful execution of these projects relies on efficient monitoring and adherence to ethical standards. Professional ethics refers to the moral norms and principles that influence behavior and decision-making within a specific field. In the context of public projects, professional ethics are crucial for upholding openness, responsibility, and integrity throughout the project lifecycle. Numerous studies have demonstrated the positive impact of adhering to professional ethics on project success by minimizing corruption, ensuring fair practices, and enhancing stakeholder trust (Johnson, 1991).

Research has emphasized the significance of practicing professional ethics to achieve sustained and acceptable project quality in the public construction sector (Abdul-Rahman *et al.*, 2010; Abdul-Rahman *et al.*, 2014). The adherence to ethical standards is essential for preventing quality problems and structural failures caused by unethical decisions during construction. Case studies, such as the collapse of the Hyatt Regency Kansas City walkways and incidents in Malaysia, highlight the negative consequences of low ethical standards on construction quality (Abdul-Rahman *et al.*, 2014). The paper

suggests that enforcing existing laws, establishing standard codes of ethics, and monitoring construction players are necessary steps for maintaining ethical standards in developing countries.

Effective project monitoring and control are essential for project success. Studies have found a positive correlation between project management control and project success, emphasizing the importance of project control in achieving favorable outcomes (Ezeoke, 2021). Ethical leadership also plays a crucial role in project success by fostering trust and knowledge sharing among project team members (Bhatti *et al.*, 2021). Integrating professional practices and promoting ethical leadership can reduce the number of failed projects, leading to economic development and improved welfare for communities. Professionalism and ethics are vital for enhancing the role, performance, and accountability of public servants in different regions and contexts (UN, 2000). The role of ethics in public administration is emphasized in the literature, highlighting how ethical values and principles, such as responsibility, efficiency, transparency, and accountability, can improve the performance and accountability of public servants (Buye, 2021).

In conclusion, professional ethics play a crucial role in public project monitoring, impacting project success, quality, stakeholder trust, and the performance of public servants. Upholding ethical standards throughout the project lifecycle is essential for minimizing corruption, ensuring fair practices, and maintaining project quality. Promoting professionalism and ethics within the public service enhances the performance and accountability of public servants. By integrating professional ethics into public project monitoring,

organizations and governments can ensure the efficient and ethical utilization of public resources for the betterment of society.

### **Professional Ethics in the relationship between Evaluation and Public Project Success**

Evaluation is the methodical examination of a project's or other intervention's efficacy. With a focus on solving real-world issues and being helpful to project sponsors, decision-makers, and other stakeholders, an assessment demands evaluation competence and the strict application of scientific techniques (Rossi, Lipsey, & Freeman, 2004). An evaluation may be carried out at numerous points during the course of a project. Since each step poses a unique set of questions that must be answered, distinct evaluation methodologies are necessary. According to Rossi *et al.* (2004), this would comprise assessing the project's requirement, its design and logic, its implementation, its outcome or impact, and its cost and efficiency.

Undertaking evaluation during the course of a project is vital to the success of the project since each step poses a unique set of questions that must be answered, distinct evaluation methodologies are necessary (Rossi *et al.*, 2004). Furthermore, evaluation during projects is essential in ensuring project success (Baker, Murphy & Fisher, 1997; Jacobson & Choi, 2008; Khan, 2014). Additionally, the idea of project success is currently a hot topic in management literature and has played a significant role in project management literature (Diallo & Thuillier 2003). According to Cooke-Davies (2001), project success is evaluated in relation to the project's overall objectives, and the standards used

to determine whether a project is successful or unsuccessful may be referred to as success criteria.

According to Lim and Zain Mohamed (1999), the norms or principles by which project success is or can be measured make up the criteria for evaluating project performance. Effective time, cost, and quality management were shown to be the three most important factors influencing project success and client satisfaction quantitative assessment of construction projects (Chan & Tam's, 2001). Professional ethical decisions and ethical issues are widespread in business ethics (Guy, 1990). Normative and descriptive ethics are the two main categories that make up business ethics (O'Fallon & Butterfield, 2005). Since the beginning of recorded history, philosophers have debated the nature of professional ethics.

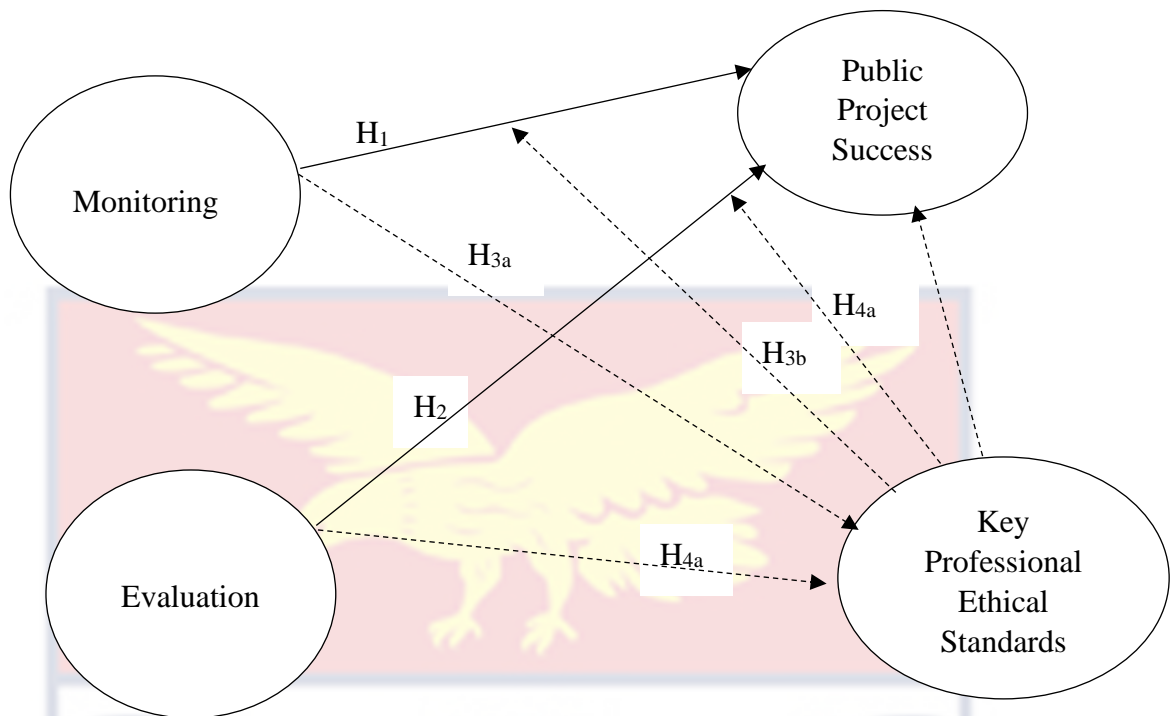
It is safe to say that classical Greek philosophers like Socrates, Plato, and Aristotle continue to have an impact on this field of study today, as our society still struggles with fundamental issues of morality and ethics (Hartman, 2008). Making judgments has always been one of the most important things that people do, and making ethical decisions is among the most difficult and complicated things that people have ever had to do either in the public or private organisations (Brans, 2000). According to Rest (1986), making an ethical choice when faced with a moral conundrum requires careful thought. Moreover, Guy (1990) explains that making moral choices entails a moral conundrum that touches on two or more of one's essential principles, is ambiguous, and may have unintended effects.

Trevino and Youngblood (1990) claim that people regularly second-guess whether they are making the right choice. They also contend that normative-affective factors play a role in ethical judgments. Jones (1991) defined an ethical decision as one that the larger community can support both legally and morally. By bringing together a variety of divergent theoretical viewpoints and recasting them within Rest's (1986) four step framework for ethical decision-making, Jones (1991) made substantial theoretical contributions in the field of ethical decision-making. The concept of moral intensity has multiple dimensions and perspectives. These include social consensus (the extent to which a given act is viewed as good or evil), probability of effect (the likelihood that a given act will actually occur and the likelihood of its potential for harm or good), temporal immediacy (the amount of time between the present and the onset of consequences of the moral act in question), and the magnitude of consequences of an immoral act.

### **Conceptual Framework**

Upon completing the theoretical review, conceptual review and empirical review, a conceptual framework was drawn to illustrate the relationships to be examine between the variables of the study. The conceptual framework in Figure 1 displays the dependent variable, independent variable and the intervening variable of the study. The dependent variable is public project success, independent variables are monitoring and evaluation, and the intervening variable professional ethics (selflessness, integrity, and transparency). The framework showcases the relationships to be examined between monitoring, evaluation, professional ethics, and public project success.





**Figure 1. Conceptual Framework**

Source: Author's own creation (2023)

The conceptual framework in Figure 1 provides a pictorial view of the research objectives within the theoretical, conceptual and empirical arguments. The study therefore built its methodological approach bearing in mind the understanding that the framework is communicating. The relationship between monitoring and public project success is investigated. The relationship between evaluation and public project success is investigated. The role professional ethics (selflessness, integrity and transparency) play in the relationship between monitoring, evaluation and public project success also is investigated. These relationships were built from the agency theory and the theory of change.

### Chapter Summary

The chapter reviewed literature pertaining to monitoring, evaluation, professional ethics, and public project success. The chapter also presented on

the theories that underpinned the study. furthermore, the chapter drawn the conceptual framework to illustrate a diagrammatic view of the study objectives.



## CHAPTER THREE

### RESEARCH METHODS

This chapter of the work presented on the research methodology for the study. Specifically, it focused on the research philosophy, approach, design, study area, population, sample and sampling technique, measurement of variables, data collection instrument, data collection procedure, data processing and analysis, validity and reliability, and ethical considerations.

#### Research Paradigm

The study employed the positivist research paradigm. This philosophy was chosen for the study because the study sought to establish a single truth, and that there is the need for an objective process in achieving its stated objectives. This Positivism relies on the hypotheticodeductive method to verify a priori hypotheses that are often stated quantitatively, where functional relationships can be derived between causal and explanatory factors (independent variables) and outcomes (dependent variables) (Park, Konge, & Artino, 2020).

In the realm of social sciences and research methodologies, the positivist paradigm stands tall as a significant and influential perspective. Rooted in the belief that knowledge can be obtained through empirical observation and scientific methods, positivism embodies a rational and objective approach towards understanding the world. It strives to uncover universal laws and causal relationships, emphasizing the importance of quantifiable data and verifiable evidence.

At the heart of the positivist paradigm lies the conviction that reality exists independently of our perceptions and can be studied and understood through systematic observation and measurement. Positivists hold that the scientific method, with its emphasis on objectivity, systematic data collection, and logical analysis, is the most reliable means of acquiring knowledge about the world. Positivism assumes that the social world operates similarly to the natural world and can be understood through the same principles and methods. It strives for generalization and seeks to uncover universal laws governing human behaviour and social phenomena. By identifying patterns and regularities in large datasets, positivists aim to predict and explain social phenomena objectively.

### **Research Approach**

The study used the quantitative approach because the positivist paradigm suggests so, and the study objectives also demands such an approach to be achieved. Quantitative research is characterized by its emphasis on quantifiable data that can be measured and analysed using statistical techniques. Researchers using this approach often design studies with large sample sizes to ensure the representation of the target population and increase the generalizability of their findings. Surveys, experiments, and structured observations are common methods employed in quantitative research, enabling researchers to gather data on variables of interest and examine their relationships.

The process of conducting quantitative research typically involves the formulation of research questions or hypotheses, followed by the design of a study and the collection of data using standardized instruments or protocols.

Quantitative researchers utilize various statistical techniques to analyse the collected data, seeking to identify patterns, associations, and statistical significance. This approach emphasises objective and the statistical analysis of collected data through survey. The approach focuses on gathering numerical data on a specific concept and generalising across group (Babbie, 2020).

The strengths of the quantitative research approach lie in its ability to provide precise and objective measurements, allowing for replicability and comparability across studies. The statistical analyses employed enable researchers to make inferences about the population under study based on the collected data. This approach also permits the identification of cause-and-effect relationships, as researchers can control for extraneous variables through experimental designs or statistical modelling.

### **Research Design**

The study employed the explanatory research design due the study paradigm and the nature of the study objectives. The study objectives sought for an approach that can establish and examine cause-effect relationships. Explanatory research design, also known as causal or explanatory research, is a research approach aimed at identifying and explaining the causal relationships between variables. This design seeks to understand why certain phenomena occur and how they are interconnected. It goes beyond describing or predicting outcomes and delves into uncovering the underlying mechanisms and reasons behind observed patterns.

Explanatory research design is often used when there is a need to determine cause-and-effect relationships or to explain the reasons for a

particular outcome (Harris, Holyfield, Jones, Ellis, & Neal, 2019). It typically involves conducting empirical investigations in real-world settings and applying rigorous methodologies to establish causal connections. The key strength of explanatory research design lies in its ability to provide insights into the underlying mechanisms and reasons for observed phenomena. By establishing causal relationships, researchers can gain a deeper understanding of how variables interact and influence one another.

### **Population**

The population of this study constituted planning officers, heads of works, auditors, budget officers, finance officers, social welfare and community development officers in Central Region. There are 22 MMDAs in the central region. Therefore, the total population size was 154 (Local Government Service, 2023). These persons were chosen because they are engaged in the monitoring, and evaluation of public projects success in the Region. The population represents the target population from which data will be collected and analysed to draw conclusions and make inferences about a particular research question or hypothesis.

The selection of an appropriate study population is crucial as it determines the generalizability of the findings to the larger population or the specific context under study. The study population should ideally be representative of the broader population or the specific group that the researcher aims to draw conclusions about. The characteristics and size of the study population will depend on the research objectives and the scope of the study.

## Sample and Sampling Procedure

The sample size for the study was computed using the Krejcie and Morgan (1970) sample size determination table. The computation generated that the sample size of a population of 154 staff of MMDAs in Central Region was 111 staff. Sample size refers to the number of individuals or elements included in a study sample—the subset of the population selected for data collection and analysis. Determining an appropriate sample size is a critical aspect of research design, as it affects the reliability and generalizability of study findings.

The size of the sample depends on various factors, including the research objectives, the research design, the level of precision desired, the variability of the population, and the available resources. Researchers strive to select a sample size that is large enough to yield statistically meaningful results while avoiding an excessively large sample that may be impractical or unnecessary. One important consideration when determining sample size is statistical power—the ability of a study to detect true effects or relationships. Increasing the sample size generally improves statistical power, enabling researchers to detect smaller and more subtle effects.

In terms of sample technique, the study used random sampling. This was done through a process of generating random numbers or arrangements to introduce an element of randomness into data or experiments. The Excel feature (RAND Function) was used to generate a random decimal number between 0 and 1. By combining this function with other Excel features, the study created randomized data sets or perform random selections.

Random sampling is a widely used technique in statistics and research methodology that involves selecting a subset of individuals or items from a

larger population in a completely random manner. The goal of random sampling is to ensure that each member of the population has an equal chance of being included in the sample, which helps to minimize bias and increase the generalizability of the findings.

Random sampling is an essential tool in various fields, including social sciences, market research, opinion polling, and quality control. It allows researchers to draw conclusions about the larger population based on the characteristics observed in the sample. By ensuring randomness in the selection process, random sampling helps to reduce the potential for sampling errors and increase the representativeness of the sample.

### Measurement of Variables

Once the study variables were conceptualized, there was the need to operationalize them. This means developing specific procedures or protocols to measure the variables in a tangible and observable manner. Operational definitions help translate abstract concepts into measurable indicators or variables. The measurement of the variables was presented in Table 1.

**Table 1. Measurement of Variables**

Variable	Indicators	Source
Monitoring	Compliance, beneficiary.	Hazır (2015).
Evaluation	Formative, summative.	Small (1999).
Project Success	Time, cost, scope, and client satisfaction.	De Wit (1988).
Professional Ethics	Selflessness, integrity, justice and fairness, accountability, transparency and leadership	Office of the Head of Civil Service-Ghana (1999)



### Data Collection Instrument/ Procedure

The study used a structured questionnaire. A structured questionnaire in research refers to a methodical and pre-determined set of questions designed to collect specific information from participants in a study. It is a standardized instrument that follows a fixed format, ensuring consistency and reliability in data collection. This type of questionnaire consists of closed-ended questions, where respondents choose from a predefined list of options or provide brief, specific answers. The questions are typically organized in a logical sequence, facilitating the smooth flow of the survey and enabling efficient data analysis.

The questionnaire for the study had four (4) sections. Section one covered respondents' demographics, with 7-items. Section two presented on the monitoring practice, with 7-items adapted from Hazır (2015); and evaluation practice, with 7-items adapted from Small (1999). Section three looked on how monitoring, and evaluation practices affect public project success, with 7-items adapted from De Wit (1988). Section four covered the role of key professional ethical standards in the relationship between monitoring, evaluation and public project success, with 7-items adapted from Office of the Head of Civil Service-Ghana (1999). The questionnaire assumed a semantic differential scale of 1 (least agreed) to 5 (strongly agreed).

Semantic differential scales provide a structured and standardized method of measuring attitudes, opinions, perceptions, or evaluations. They are commonly used in marketing research, social sciences, and psychology to assess a wide range of concepts such as brand image, customer satisfaction, personality traits, and emotional responses. The scales allow researchers to gather

quantitative data that can be statistically analysed, providing valuable insights into people's subjective experiences and preferences.

### **Data Processing and Analysis**

Data was processed using the Statistical Package for Social Sciences (SPSS) version 25 and SmartPLS version 3. The journey of data processing commences with data entry, where the collected information is carefully transcribed into a digital format. This initial step lays the groundwork for subsequent analysis, ensuring that the data is readily accessible and can be manipulated effectively. Accuracy and attention to detail are paramount during this phase, as any errors or omissions may ripple through the entirety of the research endeavor.

Once the data is securely stored, researchers embark on a voyage of data cleaning and validation. This critical phase involves identifying and rectifying inconsistencies, outliers, missing values, and other anomalies that may undermine the integrity and reliability of the data set. Rigorous quality control measures are implemented to ensure that the data is consistent, complete, and representative of the research scope.

In this study, the collected administered questionnaires were sorted to assembly the ones that were filled by the respondents. After that the responses from the collected administered questionnaire were code. For instances, Male was given a code of "1" and Female was given a code of "2". Furthermore, the responses were inputted into the SPSS template that was built for the study. In addition, an assessment was done through frequency analysis to check for missing values. This exercise made it possible for the data to be fit for the study analysis.

In terms of analysis, the study used both descriptive and inferential statistics. With the descriptive statistics, frequency and percentage was used to present the demographic information of the respondents. Mean was used to present the descriptive data on the main variables of the study. With the inferential statistics, partial least square structural equation modelling was used as an analytical tool for the study objectives. Structural Equation Modelling is a second-generation statistical technique for measuring variables using indicator variables. It facilitates the measurement of inaccuracy in observable variables (Chin, 1998). The structural equation modelling (SEM) is a non-parametric tool that provides a robust analysis to studies (Hair, Risher, Sarstedt, & Ringle, 2019).

To reduce the residual variance of a dependent variable, partial least-squares structural equation modelling is used to estimate the nexuses of the path in a model. The structural equation (through path analysis) and the measurement equation (by confirmatory factor analysis) are the two primary components of structural equation modelling (Hair *et al.*, 2014; Rezaei & Ghodsi). Confirmatory factor analysis is used to confirm constructs and modify scales, whereas route analysis is used to show how variables or constructs in a study are related. Using Partial Least Squares, the  $R^2$  values of the dependent variable are minimized when path model nexuses are estimated using Structural Equation Modelling (Hair, Hult, Ringle, & Sarstedt, 2014).

Structural equation modelling, according to Hair *et al.*, has two measuring scales: formative and reflecting. The formative measurement scale is the one that causes the construct of a study while reflective measurement is the construct that produces the research's indicator (Rönkkö & Evermann, 2013).

Because the indicators in this study were generated by its concept, the reflective measurement scale was used in this investigation (Ravand & Baghaei, 2016). The use of structural equation modelling in this work was prompted by the following benefits. The use of latent variables, which permits various indicators to accurately and dependably capture constructs (Jeon, 2015).

When compared to regression, the ability to make the causal equation model between latent variables clearer. One or more independent variables can be regressed on one or more dependent variables in this model (Shahijan, Rezaei, Preece, & Ismail, 2014). Because numerous independent and dependent variables can be estimated at the same time, a researcher can show the direct, indirect and total influence. Structural Equation Modelling is extremely resistant to flaws such as skewness, multicollinearity of indicators and model misspecification (Cassel *et al.*, 1999). Confirmatory factor analysis, correlation analysis and regression analysis can all be done at the same time in a model using SEM.

### **Validity and Reliability**

Validity is the extent to which a research instrument accurately measures the concept or variable it is intended to assess. It is the degree to which the instrument truly captures the construct under investigation, without introducing biases or distortions. Establishing validity involves demonstrating that the instrument measures what it claims to measure and that it effectively represents the intended concept or construct. In this study, validity was ensured through peer and expert review.

Peer review involves submitting the research instrument, such as a questionnaire or survey, to a group of qualified peers who possess expertise in the specific subject area. These peers are typically fellow researchers or professionals who are well-versed in the domain of study. The peer review process serves as a safeguard against potential flaws or biases that may have been overlooked by the researchers themselves.

During the peer review, experts thoroughly examine the research instrument to assess its clarity, relevance, and appropriateness for the intended research objectives. They scrutinize the instrument's items or questions to ensure that they align with the research aims, cover the relevant aspects of the construct, and use appropriate language and terminology. Peers also provided valuable insights on the instrument's overall structure, formatting, and sequencing to enhance its comprehensibility and ease of administration.

Furthermore, expert review was done to complement the peer review process by seeking feedback from individuals who possess specialized expertise in monitoring and evaluation. The experts scrutinized the instrument from a theoretical standpoint, evaluating its conceptual framework, theoretical underpinnings, and alignment with established measurement models or frameworks. They also provided guidance on refining the instrument's construct definition, operationalization, or measurement scales to ensure greater conceptual validity. Additionally, the experts offered insights into potential confounding variables, alternative interpretations, or potential sources of bias that should be considered during instrument development.

On the other hand, reliability is the consistency and stability of the research instrument. It concerns the extent to which the instrument produces

consistent results over time and across different contexts or raters. A reliable instrument should yield similar measurements when administered repeatedly under similar conditions. Reliability was ensured in this study through pre-testing. Pre-testing involves piloting the instrument on a small sample of participants before the main data collection phase. By conducting a pre-test, researchers can identify and address any potential issues or weaknesses in the instrument, ultimately enhancing its reliability and the quality of the data collected. It allows researchers to gauge how well the instrument is understood by participants and to identify any ambiguities, confusing items, or language barriers that may hinder accurate responses.

A pre-test was done among 30 planning, finance, budget, audit and head of works officers among MMDAs in Ashanti Region. The analysis was done using the Cronbach Alpha on SPSS version 25. The rule of thumb with this measure is that variables with a Cronbach Alpha of .7 and above are considered reliable. The pre-test results were presented in Table 2.

**Table 2. Reliability Statistics**

	N of Items	Cronbach's Alpha
Monitoring Practice	14	.965
Evaluation Practice	14	.739
Public Project Success	7	.945
Professional Ethics	7	.900

Source: Field data (2023)

### **Ethical Considerations**

Ethics in research are essential to protect the rights and well-being of participants, ensure the integrity of the research process, and maintain public trust in scientific inquiry. The study was guided by ethical conduct in research,

such as anonymity, confidentiality, voluntary participation, consent, and avoiding plagiarism. Adhering to these principles promotes ethical research practices and upholds the rights and dignity of individuals involved.

Anonymity was ensured by ensuring that participants' personal information, such as names, addresses, and any identifying details, remain confidential and are not disclosed in any research outputs. This fosters a sense of safety and security for participants, enabling them to share their thoughts, experiences, and data without fear of retribution or negative consequences. Confidentiality was ensured by safeguarding any data or information provided by participants, ensuring that it is accessible only to authorized individuals directly involved in the research project. In doing that the researcher established secure protocols for data storage, access, and transmission to maintain confidentiality.

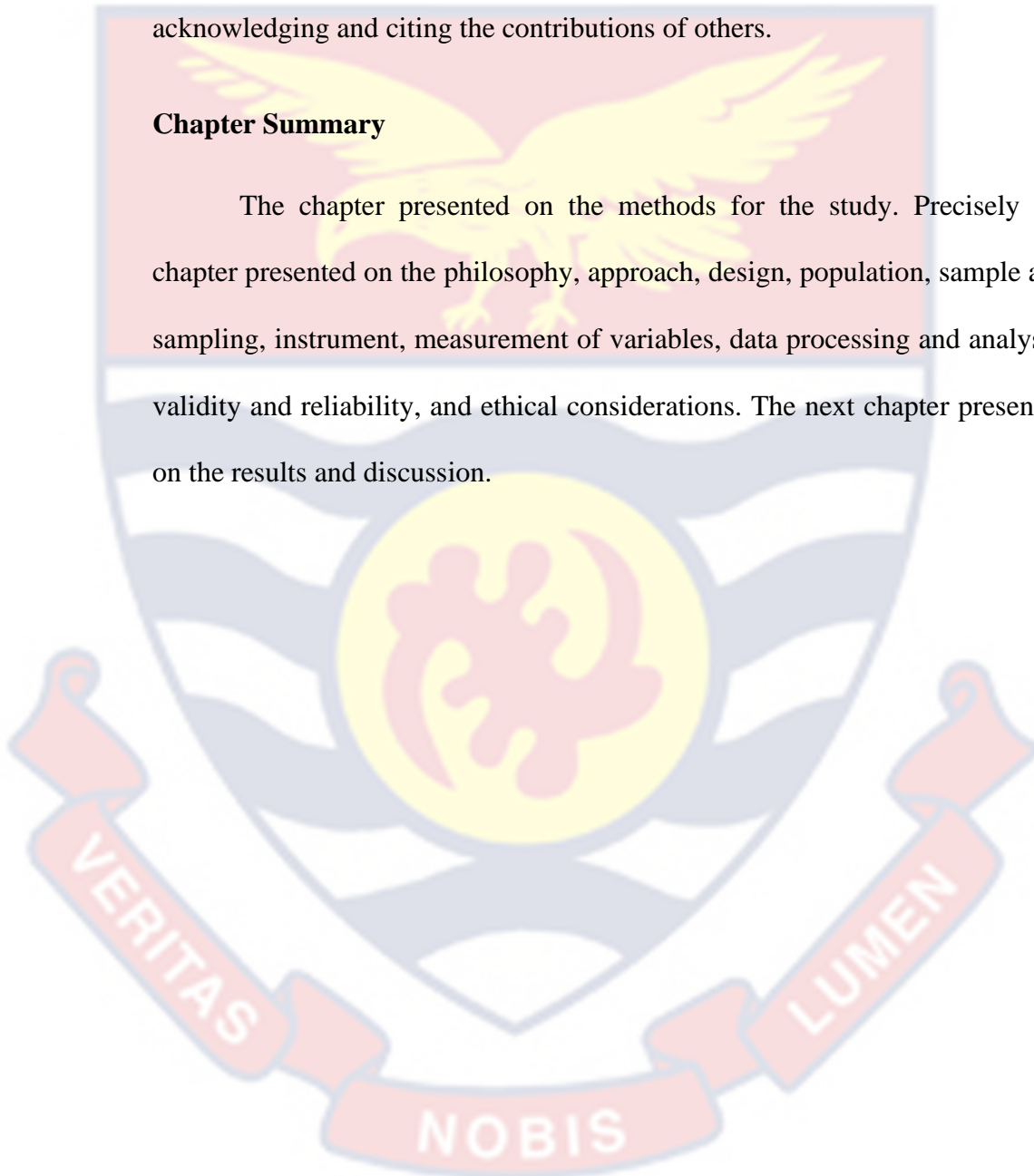
Voluntary participation was kept by ensuring that participants had the freedom to decide whether they want to take part in a study without facing coercion or pressure. The researcher provided clear and comprehensive information about the research purpose, procedures, risks, benefits, and any potential discomfort or consequences. Informed consent was obtained from participants by affirming their willingness to participate based on their understanding of the research. The researcher respected the participants' autonomy and allowed them to withdraw from the study at any time without penalty or negative repercussions. Participants had the opportunity to ask questions and seek clarifications before providing their consent.

Plagiarism was avoided by acknowledging the work and ideas of others appropriately and gave proper credit through accurate citations and references.

Plagiarism is presenting someone else's intellectual contributions, including published works, ideas, or data, as one's own without appropriate acknowledgment. The study upheld academic integrity by conducting the study with honesty, ensuring that contributions are original and properly acknowledging and citing the contributions of others.

### **Chapter Summary**

The chapter presented on the methods for the study. Precisely the chapter presented on the philosophy, approach, design, population, sample and sampling, instrument, measurement of variables, data processing and analysis, validity and reliability, and ethical considerations. The next chapter presented on the results and discussion.





## CHAPTER FOUR

## RESULTS AND DISCUSSION

The Results and Discussion Chapter is a critical section within this study that presents the findings obtained from the data analysis and subsequently discusses their implications, significance, and connections to existing literature. This chapter served as the heart of the research, where the hypotheses were addressed, and the insights gained were contextualized within the broader academic discourse.

**Demographic Information**

The provided Table 3 furnishes demographic insights into the study participants. These insights are categorized based on various variables such as sex, age, educational background and position.

**Table 3. Demographic Information**

Demographic Variable		Frequency	Percentage
Sex	Male	101	91.0
	Female	10	9.0
	<b>Total</b>	<b>111</b>	<b>100</b>
Age	24-29years	22	19.8
	30-35years	44	39.6
	36-41years	45	40.5
	<b>Total</b>	<b>111</b>	<b>100</b>
Educational Background	Bachelor's Degree	22	19.8
	Master's Degree	89	80.2
	<b>Total</b>	<b>111</b>	<b>100</b>
Position	Planning Officer	44	39.6
	Head of Works	22	19.8
	Finance Officer	22	19.8

Social Welfare and Community Development Officer	23	20.7
<b>Total</b>	<b>111</b>	<b>100</b>

Source: Field data (2023)

The findings in Table 3 shows that in terms of Sex, majority of participants, comprising 101 individuals (91.0%), are male. Additionally, there are 10 female participants (9.0%). Regarding age, participants' ages are distributed across different ranges; 22 participants (19.8%) fall within the age bracket of 24 to 29 years; another 44 participants (39.6%) are in the age range of 30 to 35 years; and the remaining 45 participants (40.5%) belong to the age group of 36 to 41 years. Concerning Educational Background, the participants' educational qualifications encompass 22 individuals (19.8%) with a Bachelor's Degree; and the majority, 89 participants (80.2%), possess a Master's Degree. For Position, the roles held by participants are varied; 44 participants (39.6%) serve as Planning Officers; 22 participants (19.8%) occupy the position of Head of Works.; an equivalent number of 22 participants (19.8%) assume roles as Finance Officers; and finally, 23 participants (20.7%) are identified as Social Welfare and Community Development Officers.

### Descriptive Statistics

Descriptive statistics provide a concise summary of key characteristics within a dataset, offering insights into its central tendencies and variability. Two fundamental measures were used in this study, which were mean and standard deviation. The mean represents the arithmetic average of a set of values. It is

calculated by summing up all the values within the dataset and then dividing by the total number of values. The mean serves as a representation of the central value around which the data points tend to cluster. The standard deviation quantifies the dispersion or spread of data points around the mean. It measures the extent to which individual values deviate from the mean. A higher standard deviation indicates greater variability, while a lower standard deviation suggests that data points are relatively closer to the mean. The results were presented in Table 4.

**Table 4. Descriptive Statistics**

	Mean	Std. Deviation
Monitoring Practice	3.0875	.77404
Evaluation Practice	2.9865	.26891
Public Project Success	3.3694	.95044
Professional Ethics	3.0013	.58570

Source: Field data (2023)

In the context of Monitoring Practice in Table 4, the mean value of approximately 3.0875 suggests that, on average, participants tend to rate their engagement in monitoring practices around this value. The associated standard deviation of roughly 0.77404 implies a moderate level of variability in participants' responses, indicating that while the average rating might be around 3.0875, individual responses may deviate by around 0.77404 units from this average. Moving to the variable Evaluation Practice in Table 4, the mean of approximately 2.9865 indicates that on average, participants rate their engagement in evaluation practice around this value concerning their evaluation practices. The smaller standard deviation of approximately 0.26891 suggests

that the responses for this variable are more tightly clustered around the mean, indicating relatively less variability compared to other variables.

Regarding Public Project Success in Table 4, the mean of roughly 3.3694 reflects an average rating around this value, suggesting that participants, on average, perceive public project success at this level. The standard deviation of approximately 0.95044 implies a moderate level of variability in participants' responses, indicating that while the average rating might be around 3.3694, individual responses may deviate by around 0.95044 units from this average. Considering Professional Ethics in Table 4, the mean of around 3.0013 indicates that participants, on average, rate their adherence to professional ethics near this value. The associated standard deviation of approximately 0.58570 implies a moderate degree of variability in participants' responses, suggesting that while the average rating may be around 3.0013, individual responses can vary by approximately 0.58570 units.

#### **Assessment of the Measurement Model**

This part of the study presented the assessment of the partial least square-structural equation modelling measurement. The measurement of the model covered the reliability of the indicators, internal consistency reliability, convergent and discriminant validity. Specifically, the factor loadings were used to assess the weight of each of the indicators in relation to its construct; the Cronbach alpha, Rho\_A and composite reliability were used to assess the internal consistency reliability of the measurement; the average variance extracted (AVE) was used to assess the convergent validity; and Fornell-

Larcker Criterion and Heterotrait-Monotrait Ratio (HTMT) were used to assess the discriminant validity of the model.

### Factor Loadings

In this study, the dependent variable was public project success; the independent variables were monitoring, and evaluation practices; and the intervening variable was professional ethics. Public project success had 7 indicators, monitoring practice had 14 indicators, evaluation practice had 14 indicators, and professional ethics had 7 indicators. The model in figure 2 represents the outer and inner loadings of the constructs of the study.

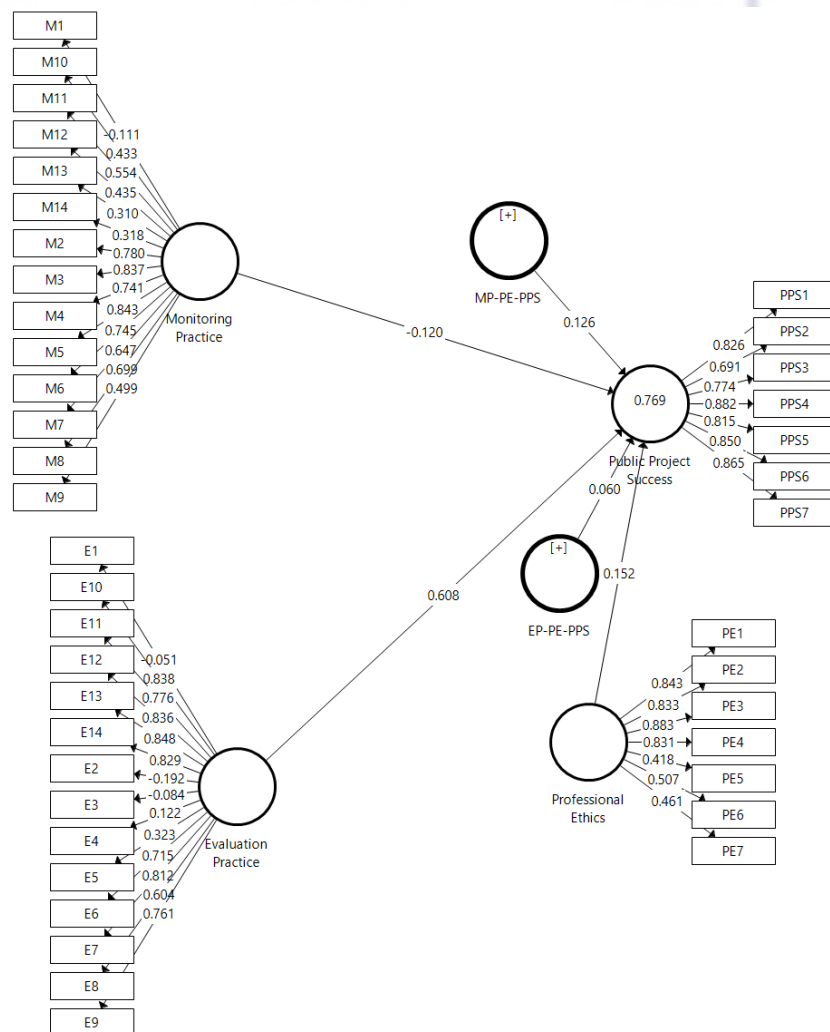


Figure 2. Outer and Inner Loadings of the PLS Algorithm (before deletion)

Source: Field data (2023)

In figure 3, the indicators for public project success were PPS1-PPS7, monitoring practice were M1-M14, evaluation practice were E1-E14, and professional ethics were PE1-PE7.

### Assessing the Factor Loadings

In assessing the factor loadings of indicators for a construct, Hair *et al.* (2016) posited that a valid indicator must load 0.7 and above. Meaning any indicator with a factor loading below 0.7 is deleted in order to satisfy the requirement of the rule of thumb. Table 5 presented the factor loadings for the latent variables of the study. The latent variables had 42 indicators in all.

**Table 5. Factor Loadings**

	Evaluation Practice	Monitoring Practice	Professional Ethics	Public Project Success
EP1	0.83			
EP2	0.70			
EP3	0.79			
EP4	0.89			
EP5	0.81			
EP6	0.86			
M4		0.78		
M5		0.86		
M6		0.80		
M7		0.78		
M8		0.74		
PE1			0.87	
PE2			0.84	
PE3			0.89	
PE4			0.88	
PPS2				0.85
PPS3				0.81
PPS4				0.87
PPS5				0.87
PPS6				0.88
PPS7				0.78

Source: Field data (2023)

In can be seen in Table 5 that some of the indicators were deleted because they had thresholds below 0.7 (Hair *et al.*, 2016). In the case of evaluation practice, indicators with thresholds below 0.7 were E7 to E14. For monitoring practice, indicators with thresholds below 0.7 were M1, M2, M3, M9-M14. In the context of professional ethics, indicators with thresholds below 0.7 were PE5-PE7. Finally, with public project success, the indicator with a threshold below 0.7 was PPS1.

### Assessing Reliability and Validity of the Model

This part of the work paid attention to the reliability and validity of the model using the PLS-SEM outputs. The Cronbach Alpha, Rho\_A, composite reliability and AVE were presented in Table 6.

**Table 6. Reliability and Validity**

	Cronbach's Alpha	Rho_A	Composite Reliability	Average Variance Extracted (AVE)
Evaluation Practice	0.90	0.91	0.92	0.66
Monitoring Practice	0.85	0.87	0.89	0.63
Professional Ethics	0.89	0.90	0.93	0.76
Public Project Success	0.92	0.92	0.94	0.71

Source: Field data (2023)

### Internal Consistency Reliability

According to Hair *et al.* (2016), internal consistency reliability measures how closely connected a constructs indicator are to one another. In this study, the internal consistency reliability was measured using the Cronbach Alpha, Rho\_A and composite reliability. Cronbach Alpha of 0.7 and above is recommended; and the higher values for Rho\_A and composite reliability are

recommended (Hair et al., 2016). From the Table 6, it can be seen that the Cronbach Alpha for the various variables ranges from 0.85 to 0.92, indicating highly level of reliability. Furthermore, the values of the Rho\_A for the various variables ranges from 0.87 to 0.92; and that of composite reliability ranges from 0.89-0.94. The composite reliability and Rho\_A values for the variables indicates higher levels of internal consistency.

### **Convergent Validity**

Convergent validity deals with the degree to which a study's constructs converges so as to explain the variance of its indicators (Hair *et al.*, 2019). In SEM the AVE is used to measure convergent validity (Gotz *et al.*, 2010). AVE consists of the variance as well as the variance of its items captured by the construct relative to the full amount of variance as well as the variance resulting from the measurement error (Gotz *et al.*, 2010). An AVE value of less than 0.5 is not sufficient, as more variance is a result of error variance than indicator variance (Gotz *et al.*, 2010). It is therefore recommended that AVE values foreach construct should be of 0.5 and above to show that the construct describes at least 50% of the variance of the indicators that form the construct and back the measurement of convergent validity (Hair *et al.*, 2019). From Table 6, the AVE values for the constructs ranges from 0.63 to 0.76, hence the threshold was met.

### **Assessing Discriminant Validity**

Discriminant validity deals with the degree to which the construct in a structural model is empirically different from other constructs (Hair *et al.*, 2019). Discriminant validity ensures a research's latent variables are independent from



each other. This measure can also be used to evaluate collinearity issues (Hair *et al.*, 2014). Variables that have met the discriminant validity thresholds signifies the absence of collinearity issues (Hair *et al.*, 2017). In this study, the Fornell-Larcker Criterion and Heterotrait-Monotrait Ratio (HTMT) in Table 7 and 8 were used to assessed the discriminant validity of the structural model.

**Table 7. Fornell-Larcker Criterion**

	<b>Evaluation Practice</b>	<b>Monitoring Practices</b>	<b>Professional Ethics</b>	<b>Public Project Success</b>
Evaluation Practice	<b>0.81</b>			
Monitoring Practice	-0.27	<b>0.79</b>		
Professional Ethics	0.70	-0.14	<b>0.87</b>	
Public Project Success	0.80	-0.24	0.79	<b>0.84</b>

Source: Field data (2023)

From Table 7, the bolded values depict the square root of the AVEs, the values below them represent the correlation coefficient between the constructs. The Fornell and Larcker (1981) criterion posited the square root of each latent variable's AVE should be greater than all the correlation coefficients between the construct and the other constructs in the structural model. In can therefore be seen in Table 7 that the square root of the AVEs is greater than the correlations.

**Table 8. Heterotrait-Monotrait Ratio (HTMT)**

	Evaluation Practice	Monitoring Practices	Professional Ethics
Evaluation Practice			
Monitoring Practice	<b>0.30</b>		
Professional Ethics	0.78	<b>0.16</b>	
Public Project Success	0.90	0.27	<b>0.86</b>

Source: Field data (2023)

In Table 8, the HTMT result was presented. The HTMT is a more robust alternative technique for assessing discriminant validity (Henseler, Ringle & Sarstedt, 2015). According to Henseler *et al.* (2015), discriminant validity is established when the HTMT values are less than 0.9. Based on the HTMT values in Table 8, it can be concluded that the indicators significantly perform well in discriminating against unrelated constructs and loading high on the parent constructs.

#### Assessing Multicollinearity

Multicollinearity test was run to assess if the path coefficients were free from bias and to reduce the predictor constructs' levels of collinearity (Hair *et al.*, 2019). In SEM, the variance inflated factor (VIF) is used to assessed collinearity issues. The VIF values for this model was presented in Table 9.

**Table 9. Variance Inflated Factor (VIF)**

	Public Project Success
Evaluation Practice	2.20
Monitoring Practice	1.26
Professional Ethics	2.10

Source: Field data (2023)

The rule of thumb is VIF values of 3 and below are usually recommended (Hair *et al.*, 2019). Therefore, VIFs greater 5 depict potential collinearity issues. Based on the VIF values in Table 9, it can therefore be suggested that there is the absence of multicollinearity among the variables.

### Structural Model

The structural model in figure 3 was generated from the PLS-Algorithm. The model displays the various relationships that were examined.

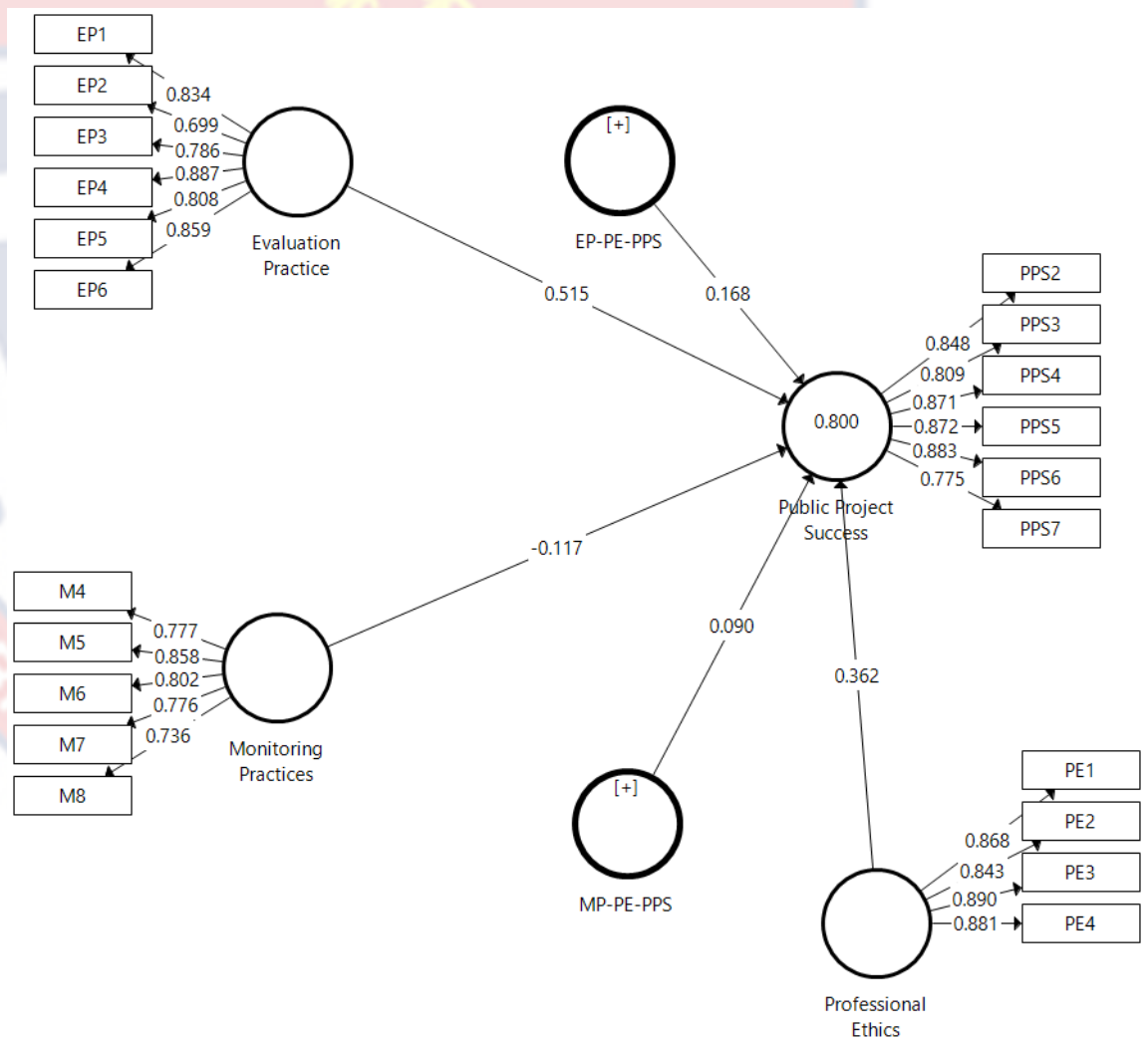


Figure 3. Structural Model (after deletion)  
Source: Field data (2023)

## Assessing the Structural Model

The assessment of the structural model consists of the assessment of the coefficient of determination and predictive relevance, and testing of the significance of the model.

### Assessing the Coefficient of Determination and Predictive Relevance

The assessment of the coefficient of determination and predictive relevance paid attention to the  $R^2$  (coefficient of determination),  $F^2$  (effect size), and  $Q^2$  (predictive relevance). The results on these tools were presented in Table 10.

**Table 10. Coefficient of Determination and Predictive Power**

	$R^2$	$R^2$ Adjusted	$F^2$	$Q^2$
Public Project Success	0.80	0.79		
Evaluation Practice			0.60	0.241
Monitoring Practice			0.05	0.176
Professional Ethics			0.31	0.201

Source: Field data (2023)

The explanatory power of the structural model in terms of the endogenous variable is assessed using the  $R^2$  (Shumueli & Koppius, 2011). Usually, the  $R^2$  ranges from 0 to 1, with values closer to 1 signifying better explanatory power. Even though, the study context could affect the acceptable values for  $R^2$ , generally,  $R^2$  values of 0.25 are deemed weak, 0.5 as moderate, and 0.75 as strong in the field of social sciences (Hair *et al.*, 2022). Based on the  $R^2$  value (0.8) in the Table 10, it can be concluded that monitoring practice, evaluation practice, and professional ethics have a strong explanatory power on

public project success. Thus, these constructs (monitoring, evaluation, professional ethics) account for 80% variation in public project success.

In the case of the effect size ( $F^2$ ) in SEM, Cohen (1988) posited that values of 0.02, 0.15, and 0.35 respectively, denote small, medium, and large effect of an exogenous latent variable on an endogenous latent variable. From Table 10, it can be seen that evaluation practice had large effect (0.6) on public project success, monitoring practice had a small effect on public project success, and professional ethics had a large effect on public project success. With the predictive relevance ( $Q^2$ ), Chin (1998) suggests that a model demonstrates good predictive relevance when its  $Q^2$  value is larger than zero. The  $Q^2$  values in Table 10 suggests that the model had a medium predictive relevance.

### **Testing the Significance of the Model**

In PLS-SEM, the significance of the path model is assessed using the bootstrapping process. The result for the path modelling is presented in Figure 3. Figure 3 establishes the relationships that the study hypotheses sought to test. The bootstrapping process creates numerous subsamples from the original sample and estimate parameters for each subsample. Through this process, a bootstrap result on the path model is generated which captures the indicate weight (Henseler *et al.*, 2015). Indicator weight ( $\beta$ ) with a significance level ( $p$ ) of 5%, and a t-value above 1.966 is considered statistically significant. The beta coefficients ( $\beta$ ), t-values and p-values of the various constructs were presented in Table 11.

**Table 11. Bootstrap Results on Structural Path Model (Direct and Moderation)**

	Beta ( $\beta$ )	T Statistics	P Values	Decision
MP -> PPS	-0.12	2.05	0.04	Supported
EP-> PPS	0.52	6.88	0.00	Supported
MP-PE -> PPS	0.09	1.98	0.03	Supported
EP-PE-> PPS	0.17	2.49	0.01	Supported

**NB:** MP (monitoring practice), EP (evaluation practice), PE (professional ethics) and PPS (public project success)

Source: Field data (2023)

### Discussion of Results

The first objective examined the effect of monitoring on public project success. The results in Figure 3 and Table 11 establishes that monitoring has a negative significant effect on public project success ( $\beta=-0.12$ ;  $t=2.05$ ; and  $p<0.05$ ). That is a unit increase in monitoring will result in 12% fall in public project success. This establishes the notion that in the public sector of Ghana (MMDAs) monitoring of public project may be adding more to project cost than project benefits. And this may be due to lack of stringent supervision, regulatory and accountability structures among these MMDAs.

This finding is inconsistent with a study by Sanchez, Bonjour, Micaelli and Monticolo, (2020) that proper monitoring improves project performance, reduces cost overruns, and enhances the likelihood of achieving desired outcomes. In addition, the study finding is contrary to the finding of Trivedi and Patel (2021) that regular monitoring helps ensure that resources are allocated optimally, preventing unnecessary cost escalation and ensuring the project stays within the allocated budget. Furthermore, the study finding challenges the result of a study by Kose, Bakici and Hazir (2022) that monitoring practices facilitate learning and continuous improvement in public projects. By analyzing

monitoring data and performance feedback, project managers can identify areas for improvement and implement changes to enhance project outcomes. The inconsistencies in the findings suggest that there are extra factors that must be in place for monitoring to effectively contribute positively to public project success.

The second objective analysed the effect of evaluation practice on public project success. The outcomes in Figure 3 and Table 11 establishes that evaluation has positive significant effect on public project success ( $\beta=0.52$ ;  $t=6.88$ ; and  $p<0.05$ ). This means that a unit improvement in evaluation will result in a 52% improvement in public project success. This finding is consistent with the outcome of a study by Tucker *et al.* (2021) that the integration of evaluation into project management processes, policy formulation, and resource allocation supports evidence-based decision-making and increases the likelihood of project success. Similarly, Barber *et al.* (2020) posited that regular evaluations at different project stages provide timely feedback, contributing to project success. In addition, Sanchez *et al.* (2020) stated that continuous evaluation helps identify issues, risks, and areas requiring improvement, allowing project managers to take corrective actions promptly. Furthermore, this finding confirms evaluations help identify strengths and weaknesses, enabling project managers to capitalize on successful practices and address areas requiring improvement (Elizabeth *et al.*, 2023).

The third objective examined the role of key professional ethical standards in the relationship between monitoring and public project success. The outcomes in Figure 3 and Table 11 establishes that professional ethics plays a significant moderating role in the relationship between monitoring and public

project success ( $\beta=0.09$ ;  $t=1.98$ ; and  $p<0.05$ ). Comparing the  $\beta$  in the absence of the moderator and the  $\beta$  in the presence of the moderator suggests that professional ethics positively changes the direction of the relationship between monitoring and public project success. This finding establishes the notion that public projects success will be realized when monitoring of public projects is guided by certain key professional ethics.

This finding is in agreement with the assertion by Buye (2021) that ethical values and principles, such as responsibility, efficiency, transparency, and accountability, can improve the performance and accountability of public servants in their duty in monitoring activities. Similarly, Bhatti *et al.* (2021) stated that professional ethics play a crucial role in public project monitoring, impacting project success, quality, stakeholder trust, and the performance of public servants. In addition, Ezeoke (2021) posited that upholding ethical standards throughout the project lifecycle is essential for minimizing corruption, ensuring fair practices, and maintaining project quality. Furthermore, UN (2000) asserted that professionalism and ethics are vital for enhancing the role, performance, and accountability of public servants in different regions and contexts.

The fourth objective assessed the role of key professional ethical standards in the relationship between evaluation and public project success. It was therefore hypothesised that key professional ethical standards play a significant role in the relationship between evaluation and public project success. The outcomes in Figure 3 and Table 11 establishes that professional ethics plays a positive significant moderating role in the relationship between evaluation and public project success ( $\beta=0.17$ ;  $t=2.49$ ; and  $p<0.05$ ) even though it reduces the



strength of the relationship. Comparing the  $\beta$  of EP-> PPS (0.52) to the  $\beta$  EP-PE-> PPS (0.17), shows that the moderator (professional ethics) dumping the strength of the relationship between evaluation and public project success. This suggest that when professional ethics are not properly used by project evaluators, it might reduce the strength of the effect of evaluation on public project success. That is professional ethics can boost or dumping the impact of evaluation on public project success.

This is consistent with the statement that making judgments has always been one of the most important things that people do, and making ethical decisions is among the most difficult and complicated things that people have ever had to do either in the public or private organisations (Brans, 2000). In addition, Rest (1986) stated that making an ethical choice when faced with a moral conundrum requires careful thought. Moreover, Guy (1990) explains that making moral choices entails a moral conundrum that touches on two or more of one's essential principles, is ambiguous, and may have unintended effects. This juxtaposes the finding that professional ethics can boost or dumping the impact of evaluation on public project success.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter of the work presented on the summary, key findings, conclusions, recommendations and suggestion for further studies. The study objectives were the basis for the presentation of the key findings, and conclusions. Recommendations were made to theory, practice and policy.

#### Summary of the Study

This study examined the role of professional ethics in the relationship between monitoring and evaluation, and project success in the Central Region. Specifically, the study examined the effect of monitoring practice on public project success, analysed the effect of evaluation practice on public project success, examined the role of key professional ethical standards in the relationship between monitoring and public project success, and assessed the role of key professional ethical standards in the relationship between evaluation and public project success. The theoretical foundation was built from the agency theory and the theory of change.

In terms of methods, the study employed the positivist paradigm and the approach was quantitative. The design was explanatory and the population was planning officers, heads of works, auditors, budget officers, finance officers, social welfare and community development officers among MMDAs in Central Region. The sample size was 111 officers and the sampling technique was randomisation using excel. The data collection instrument was a structured questionnaire. The data processing software was SPSS version 25 and SmartPLS

version 3; and the data analytical tool was the partial least square-structural equation modelling (PLS-SEM).

### Key Findings

In the case of the first objective, which was to examine the effect of monitoring on public project success, the study found that monitoring had a negative significant effect on public project success ( $\beta=-0.12$ ;  $t=2.05$ ; and  $p<0.05$ ). Meaning, a unit increase in monitoring will reduce public project success by 12%. With the second objective, which was to analyse the effect of evaluation on public project success, the study found that evaluation has positive significant effect on public project success ( $\beta=0.52$ ;  $t=6.88$ ; and  $p<0.05$ ). Meaning, a unit improvement in evaluation will result in 52% improvement in public project success.

In the context of the third objective, which was to examine the role of professional ethics in the relationship between monitoring and public project success, the study discovered that professional ethics plays a positive significant moderating role in the relationship between monitoring and public project success ( $\beta=0.09$ ;  $t=1.98$ ; and  $p<0.05$ ). This finding establishes the notion that public projects success will be realized when monitoring of public projects is guided by certain key professional ethics.

In relation to the last objective, which was to assess the role of professional ethics in the relationship between evaluation and public project success, the study found that professional ethics plays a positive significant moderating role in the relationship between evaluation and public project success ( $\beta=0.17$ ;  $t=2.49$ ; and  $p<0.05$ ) even though it reduced the strength of the

relationship. This suggest that when professional ethics are not properly used by project evaluators, it might reduce the strength of the effect of evaluation on public project success

### Conclusions

In the case of the first objective, the study concluded that monitoring, while intended to enhance project outcomes, appears to have a negative and significant effect on public project success within this specific context. This revelation underscores the need for a more nuanced approach to project monitoring within MMDAs, one that takes into account the unique challenges and complexities of the Central Region. Further research and a re-evaluation of monitoring strategies may be necessary to optimize project success and ensure efficient resource allocation in the pursuit of improved public services and infrastructure for the communities served by these entities. Ultimately, this study highlights the importance of adaptability and context-specific considerations in the design and implementation of monitoring practices to achieve better outcomes in the realm of public projects.

In the vein of the second objective, the study concluded that the positive and significant effect observed serves as a compelling testament to the value of rigorous assessment and monitoring processes in the realm of public projects. By prioritizing evaluation as an integral part of their project management strategies, MMDAs can not only achieve greater project success but also ensure the efficient allocation of resources, improved accountability, and ultimately, the betterment of the communities they serve. This study underscores the importance of fostering a culture of continuous evaluation and learning within

public organizations to drive positive outcomes in public project implementation.

In the context of the third objective, the study concluded that professional ethics serve as a significant moderating factor, enhancing the relationship between monitoring efforts and the successful execution of public projects. This underscores the need for MMDAs and other governmental bodies to prioritize the cultivation and maintenance of a strong ethical foundation among their professionals. By doing so, they can not only improve the efficiency and effectiveness of project monitoring but also contribute to better outcomes for the communities they serve, fostering trust and accountability in the public sector. These results emphasize the potential for ethical considerations to be a driving force behind successful project implementation and, in turn, the overall development and well-being of the region's residents. Further research and policy efforts should continue to explore and support the integration of professional ethics as a central component in the management and governance of public projects.

Finally, with the last objective, the study found that while it is evident that professional ethics acts as a significant moderating factor in the relationship between evaluation and project success, it is important to note that its presence may attenuate the strength of this relationship. This finding highlights the delicate balance between adherence to ethical standards and the pursuit of project success. Ultimately, the incorporation of strong ethical principles into project management practices remains essential for promoting transparency, accountability, and sustainable development, even if it necessitates a measured reduction in the immediate impact of evaluation on project outcomes.

## Recommendations

Recommendation was made to theory, practice and policy.

### *Theory*

Given that monitoring had a negative significant effect on public project success, agency theory should be revisited and refined to better account for the complexities and potential drawbacks of intensive monitoring in public project management. Future research could explore alternative mechanisms or strategies to mitigate agency problems without compromising project success. Also, the study's finding that evaluation has a positive significant effect on public project success aligns with the principles of the Theory of Change. Researchers and practitioners should continue to emphasize the importance of comprehensive evaluation methodologies in project planning and execution. This could involve further development of evaluation frameworks that align with specific project types and contexts.

### *Practice*

In practice, organizations should pay attention to other factors when conducting monitoring, as it was found to have a negative impact on public project success. Instead, adopt a balanced approach that ensures oversight without stifling the project's progress. Regular reviews and adjustments can help strike this balance effectively. Also, given the positive impact of evaluation on public project success, project managers and practitioners should prioritize the incorporation of rigorous evaluation processes into their project management practices. This includes not only post-project evaluations but also continuous monitoring and evaluation throughout the project lifecycle to identify and address issues promptly. And finally, recognizing the positive moderating role

of professional ethics, organizations should make ethical considerations an integral part of project management practices. Encourage project teams to adhere to ethical standards, promoting transparency, accountability, and trust among stakeholders.

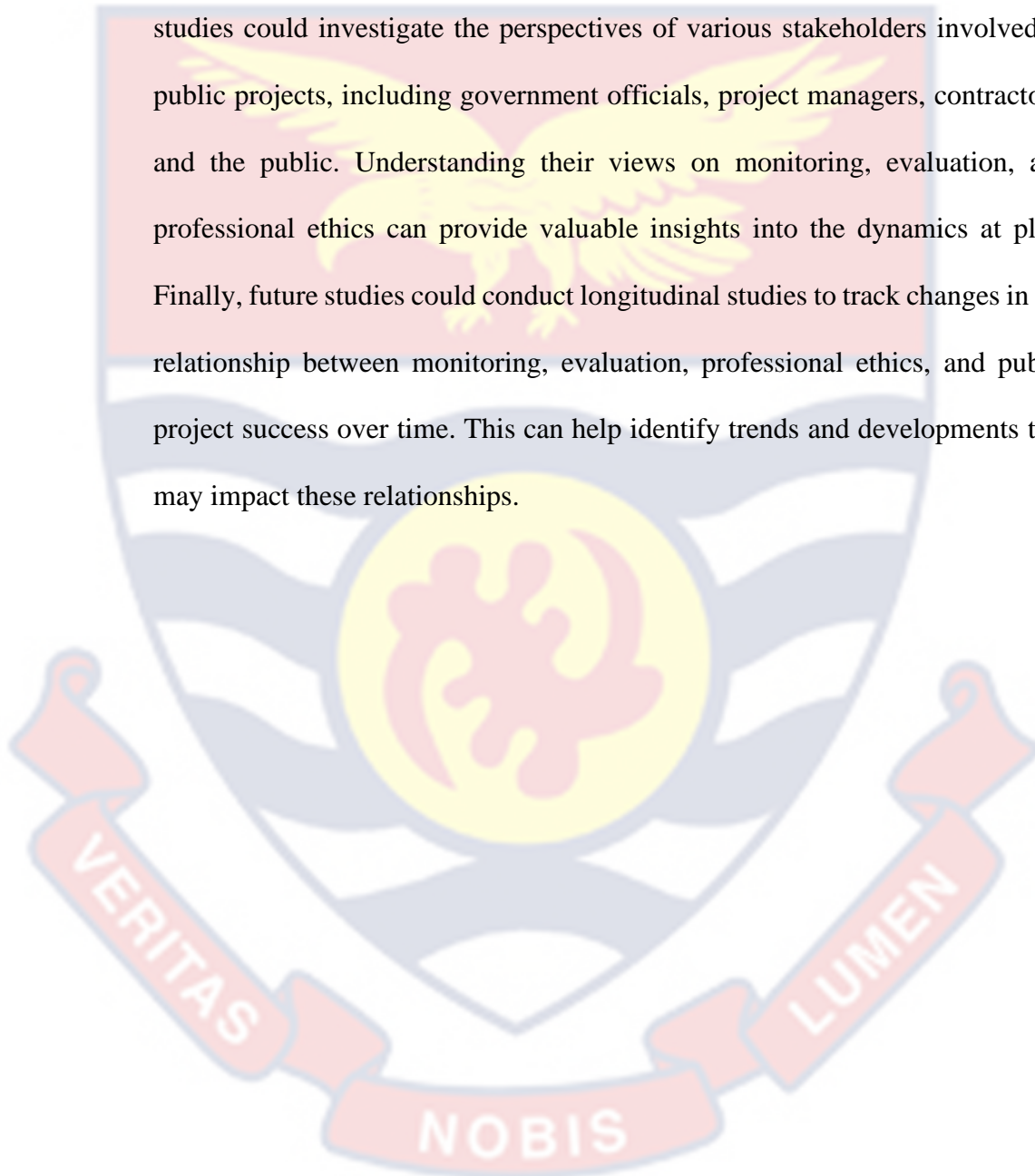
### *Policy*

Policymakers should consider reviewing and adjusting monitoring policies to strike a balance between oversight and project success. Excessive monitoring may hinder progress, while too little oversight can lead to inefficiencies and misuse of resources. Policy guidelines should reflect this need for equilibrium. In addition, public project evaluation should be institutionalized as a mandatory practice within policy frameworks. This ensures that all projects undergo comprehensive evaluation, with results informing decision-making processes and enabling continuous improvement. Furthermore, policy frameworks should include clear and enforceable ethical guidelines for public project management. These guidelines should emphasize the importance of professional ethics in enhancing project success while discouraging any actions that may compromise ethical standards. Lastly, policymakers should invest in capacity building programs to enhance the ethical awareness and project management skills of professionals involved in public projects. This can contribute to a better understanding and application of ethical principles in project management.

### **Suggestion for Further Studies**

Future studies could analyse specific case studies of MMDAs in the Central Region that have successfully implemented monitoring, evaluation, and

professional ethics practices to understand the factors that contribute to their success. Conversely, study cases where these practices have failed to identify common pitfalls and challenges. Also, future studies could investigate into factors that makes monitoring and evaluation effective. In addition, future studies could investigate the perspectives of various stakeholders involved in public projects, including government officials, project managers, contractors, and the public. Understanding their views on monitoring, evaluation, and professional ethics can provide valuable insights into the dynamics at play. Finally, future studies could conduct longitudinal studies to track changes in the relationship between monitoring, evaluation, professional ethics, and public project success over time. This can help identify trends and developments that may impact these relationships.





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## APPENDICES

## Appendix A. QUESTIONNAIRE

Dear Sir/Madam

This questionnaire will seek to solicit information from MMDAs to aid Osman Light a final year student of Christian Service University College, complete his dissertation on the topic; **“Monitoring, Evaluation and Public Project Success among Metropolitan, Municipal and District Assemblies (MMDAs) in Central Region: The Role of Professional Ethics”**, in pursuance of a Master’s of Science in Monitoring and Evaluation. This exercise will be solely for academic purposes and therefore will be guided by all relevant ethical standards of research. Your views are very much important to the study. Every information you provide would be 100% confidential. Thanks for accepting to participate in the study.

## Section A. Demographic Information

1. Sex: Male  Female
2. Age: 18-23years  24-29years  30-35years  36-41years   
42-47years  48-53years  54years and above
3. Education: HND  Bachelor’s Degree  Master’s Degree   
PhD  Otherwise, specify.....
4. Indicate your Position: Planning Officers  Head of Works   
Auditor  Budget Officer   
Financ Officer   
Social Welfare and Community Development Officer   
Otherwise, specify.....

**Section B. Monitoring Practices among MMDAs in Central Region**

The statements pertain to compliance monitoring and beneficiary monitoring. Please tick [√] within a scale of 1 (Least Agreed) to 5 (Strongly Agreed) as it may be applicable to you.

		1	2	3	4	5
M1	Frequent inspections checking on timely recording of project progress.					
M2	Frequent inspections ensuring timely project completion.					
M3	Frequent inspections to ensure right quantities of project materials as captured in the project proposal.					
M4	Frequent inspections to ensure quality of project materials as specified in the project proposal.					
M5	We monitor using a project checklist					
M6	We monitor to ensure that project is executed according to the law					
M7	Our monitoring goes beyond legal obligation to include quality, best practices and outcomes.					
M8	Monitoring is done to identify the degree to which beneficiaries are identify with the project					
M9	We monitor to ensure that project outcomes meet the needs and priorities of beneficiaries					
M10	Monitoring pays attention to beneficiaries' criticisms concerning an ongoing project					
M11	Monitoring considers beneficiaries involvement in the project.					
M12	The monitoring system captures information on beneficiaries' statements of appreciation on a project.					
M13	Monitoring regards beneficiaries' suggestions on project success.					

M14	Monitoring is conducted to know the mind of the beneficiaries on the intended project					
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### Section C. Evaluation Practices among MMDAs in Central Region

The statements pertain to formative evaluation and summative evaluation. Please tick [√] within a scale of 1(Least Agreed) to 5 (Strongly Agreed) as it may be applicable to you.

		1	2	3	4	5
E1	We assess whether a project or intervention addresses a significant need					
E2	We systematically detect and assess unanticipated events and make adjustments appropriately					
E3	We optimize and control project implementation to improve the potential project success					
E4	We document continual progress					
E5	We obtain ongoing projects inputs for short-term adjustments					
E6	We assess the nature of the local implementation setting for the project					
E7	We assess and modify a proposed program or intervention as needed					
E8	We assess the extent to which project adds value to the local setting or community					
E9	We assess the degree to which the project changes behaviours in the implementation setting					
E10	We assess the extent to which projects support local efforts					
E11	We assess the degree to which projects achieve sustained and integrative impacts					
E12	We assess the extent to which projects affects the knowledge, skills and attitudes of projects stakeholders					
E13	We assess the extended impacts of projects or interventions					
E14	We assess the extent to which projects or interventions are resilient to different implementation settings					

### Section D. Public Project Success among MMDAs in Central Region

The statements pertain to the effect of monitoring, and evaluation practices on public project success. Please tick [√] within a scale of 1(Least Agreed) to 5 (Strongly Agreed) as it may be applicable to you.

		1	2	3	4	5
	<b>Public Project Success</b>					
PPS1	Monitoring, and evaluation practices solves the problem of public sector budget constraint in projects					
PPS2	Monitoring, and evaluation practices reduces project cost while achieving acceptable quality					
PPS3	Monitoring, and evaluation practices ensures on-time or earlier project completion					
PPS4	Monitoring, and evaluation practices ensures project end-user satisfaction					
PPS5	Monitoring, and evaluation practices ensures that the project procurement procedure is fair, open and transparent					
PPS6	Monitoring, and evaluation practices build coordinated efforts for meeting project specifications					
PPS7	Monitoring, and evaluation practices ensures the satisfaction of other stakeholders (suppliers, government, project team etc.)					

### Section E. Professional Ethics among MMDAs in Central Region

The statements pertain to the role that professional ethics play in the relationship between monitoring, and evaluation practices and public project success. Please tick [√] within a scale of 1 (Least Agreed) to 5 (Strongly Agreed) as it may be applicable to you.

		1	2	3	4	5
	<b>Professional Ethics</b>					
PE1	Monitoring, and evaluation of public projects are done solely in terms of public interest					
PE2	Monitoring, and evaluation of public projects are done without any influence that has the ability to alter the true M&E results					
PE3	Monitoring, and evaluation of public projects are done by certified and qualified officers					
PE4	Monitoring, and evaluation of public projects are done by officers who are responsible to both government and the public					
PE5	Decisions and actions that are taken during monitoring, and evaluation of public projects are open to all stakeholders					
PE6	Monitoring, and evaluation of public projects are done by officers who work to serve as an example for others to follow their steps					
PE7	Monitoring, and evaluation of public projects are done by officers who work are selfless					

## Appendix B. Sample Size Determination Table

*Table for Determining Sample Size of a Known Population*

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

*Note: N is Population Size; S is Sample Size* *Source: Krejcie & Morgan, 1970*

