

UNIVERSITY OF GHANA

COLLEGE OF HUMANITIES

**DETERMINAN OF ASSET MISAPPROPRIATION IN SMALL AND MEDIUM SIZED
ENTERPRISES**

BY

SIMON TETTEH

(10877559)

**THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON, IN
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER
OF PHILOSOPHY (MPHIL) DEGREE IN ACCOUNTING**

MARCH, 2025

INTEGRI PROCEDAMUS

DECLARATION

I, Simon Tetteh, hereby declare that this work is the result of my research and has not been presented by anyone for any academic award in this or any other university. All references used in this work have been fully acknowledged.



SIMON TETTEH (10877559)

13-11-2025

DATE



CERTIFICATION

We hereby certify that this thesis was supervised in accordance with the laid down procedures by the University of Ghana.



PROF. FRANCIS ABOAGYE-OTCHERE
(SUPERVISOR)

13-11-2025
DATE



DR. EDWARD NARTEY
(SUPERVISOR)

19-11-2025
DATE



DEDICATION

This thesis is dedicated to my beloved wife, Mrs. Linda Pooma, for her unwavering support throughout my academic journey. It is also dedicated to my children, Ernestina Ama Pokua and Bright Paapa Yaw Yepah, as well as ASP Mr. Wilson Appiah-Kubi. May God bless you all.



ACKNOWLEDGEMENT

I am deeply grateful to the Almighty God for granting me the strength, good health, and wisdom to successfully complete this thesis. To Him alone be all the glory.

I extend my heartfelt appreciation to my supervisory team, Professor Francis Aboagye-Otchere and Dr. Edward Nartey, for their unwavering support, patience, and genuine care throughout this journey. It has been a privilege to work under your guidance. I also acknowledge the immense support and encouragement of ASP Mr. Williams Appiah-Kubi, whose contributions have been invaluable.

I am sincerely thankful to the faculty members of the Accounting Department at the University of Ghana Business School for their constructive feedback and insightful suggestions, which greatly shaped this work. To my work colleagues and course mates, I appreciate your timely assistance and encouragement.

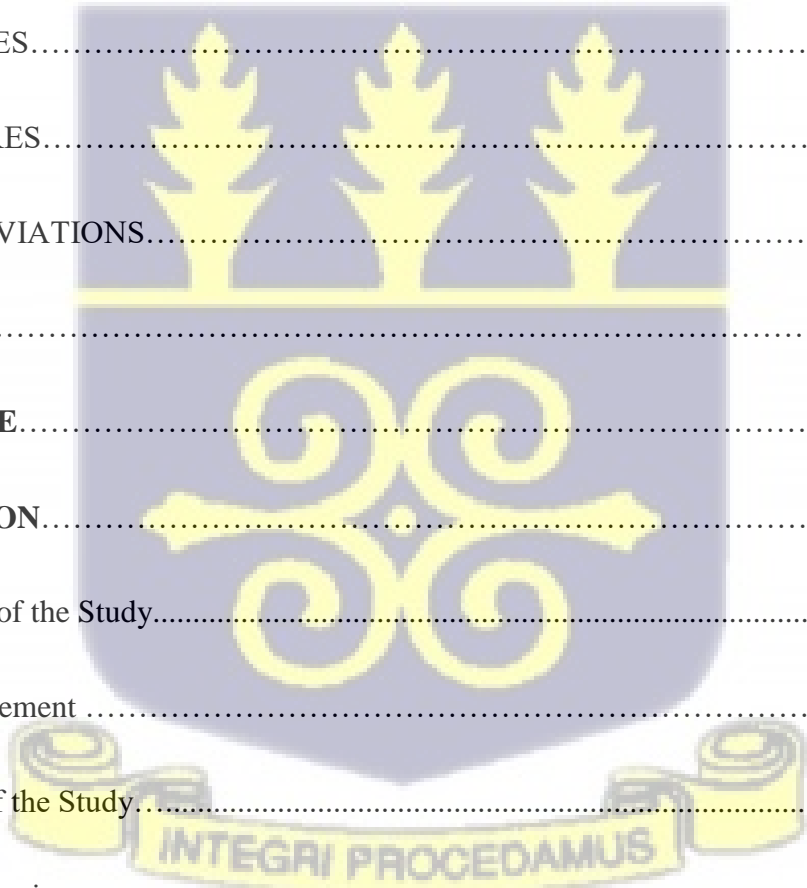
A special note of gratitude goes to my wife and children, Bright and Ernestina, as well as my friends and family members, for their steadfast prayers and support. Finally, I extend my sincere appreciation to all my survey respondents who took the time to complete my questionnaire, your participation was crucial to this study.

God bless you all.

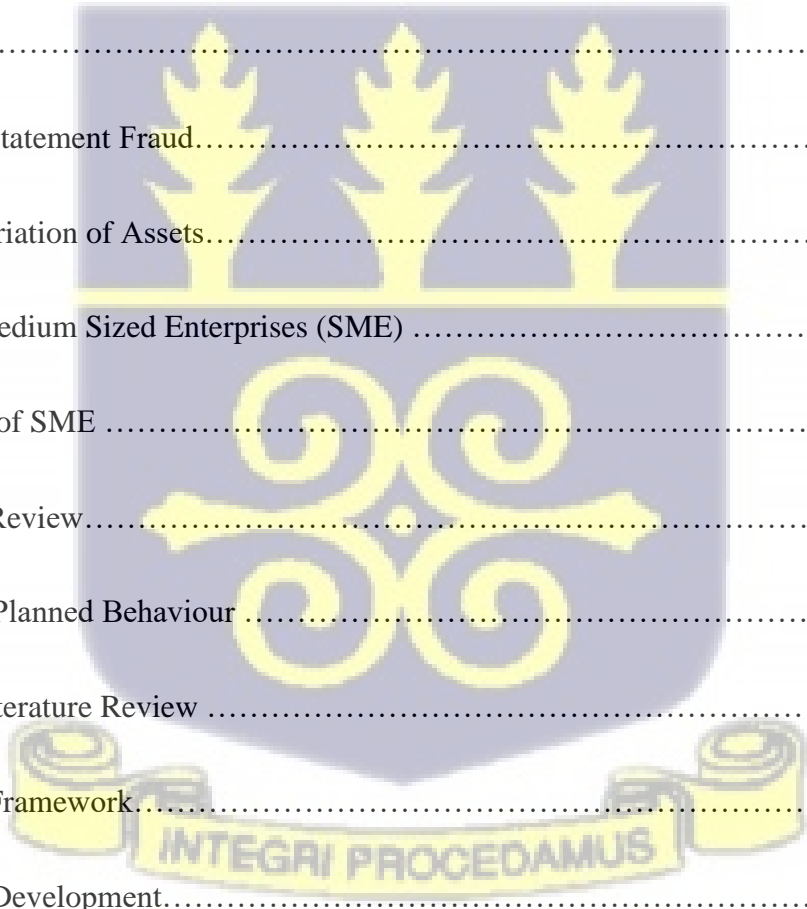


TABLE OF CONTENTS

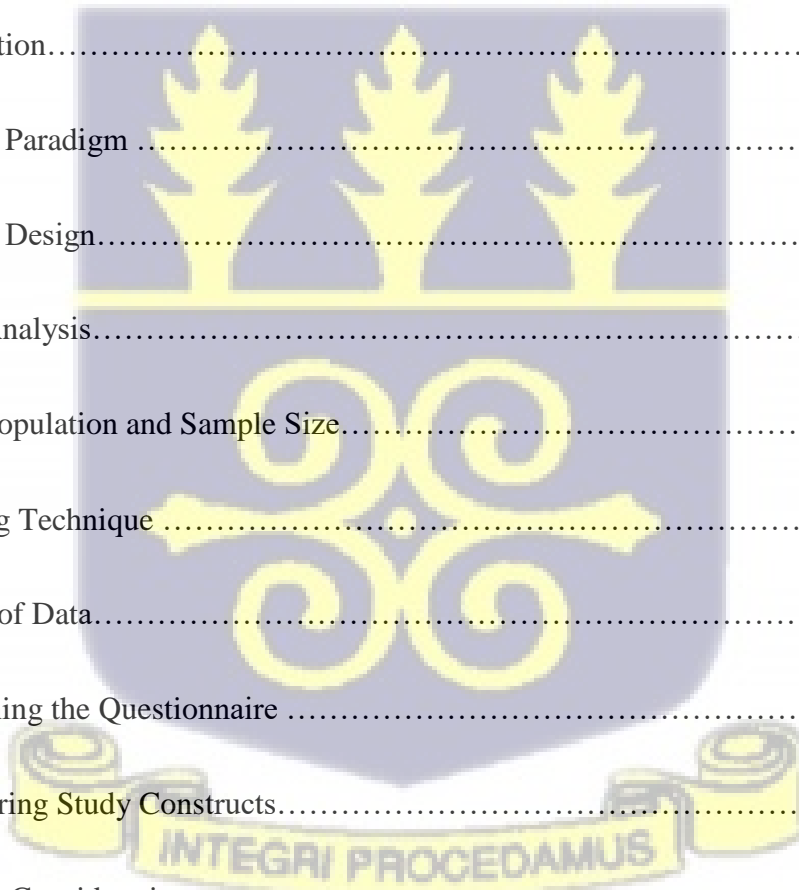
DECLARATION.....	i
CERTIFICATION.....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES.....	x
LIST OF FIGURES.....	xi
LIST OF ABBREVIATIONS.....	xii
ABSTRACT.....	xiv
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the Study.....	1
1.2 Problem Statement	6
1.3 Objectives of the Study.....	10
1.4 Research Questions.....	10
1.5 Significance of the Study.....	11



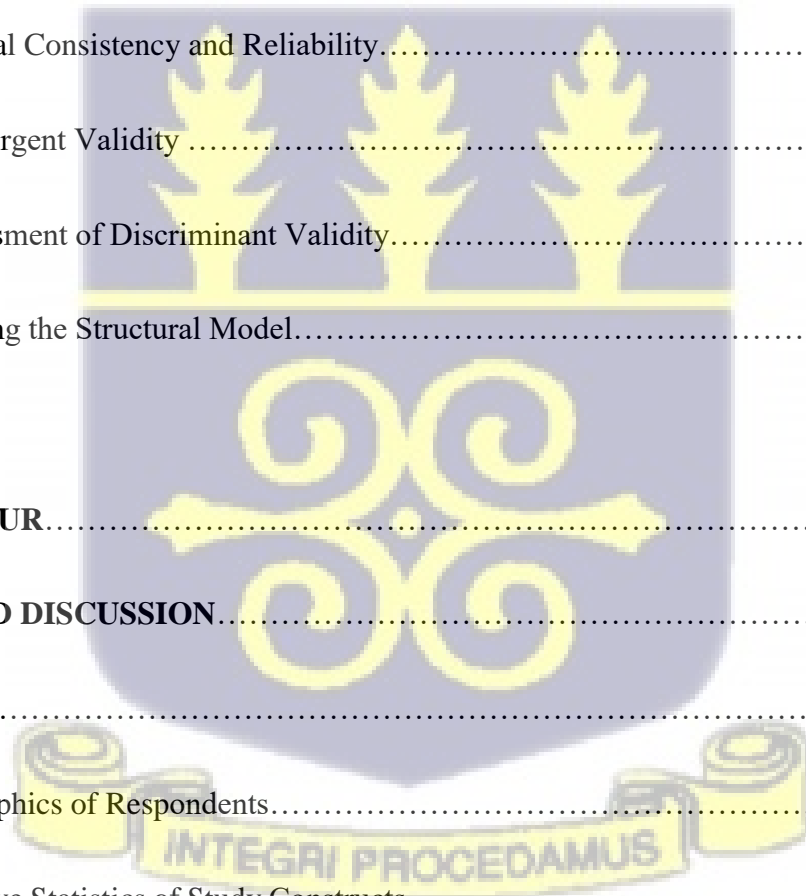
1.6 Structure of the Thesis	12
CHAPTER TWO	13
LITERATURE REVIEW	13
2.0 Introduction	13
2.1 A Brief History of Fraud	13
2.2 The Concept of Fraud	14
2.3 Types of Occupational Fraud	15
2.3.1 Corruption.....	16
2.3.2 Financial Statement Fraud.....	18
2.3.3 Misappropriation of Assets.....	19
2.4 Small and Medium Sized Enterprises (SME)	22
2.4.1 Definition of SME	25
2.5 Theoretical Review.....	27
2.5.1 Theory of Planned Behaviour	29
2.6 Empirical Literature Review	33
2.7 Conceptual Framework.....	41
2.8 Hypotheses Development.....	42
2.8.1 Attitude and Asset Misappropriation Intention	42



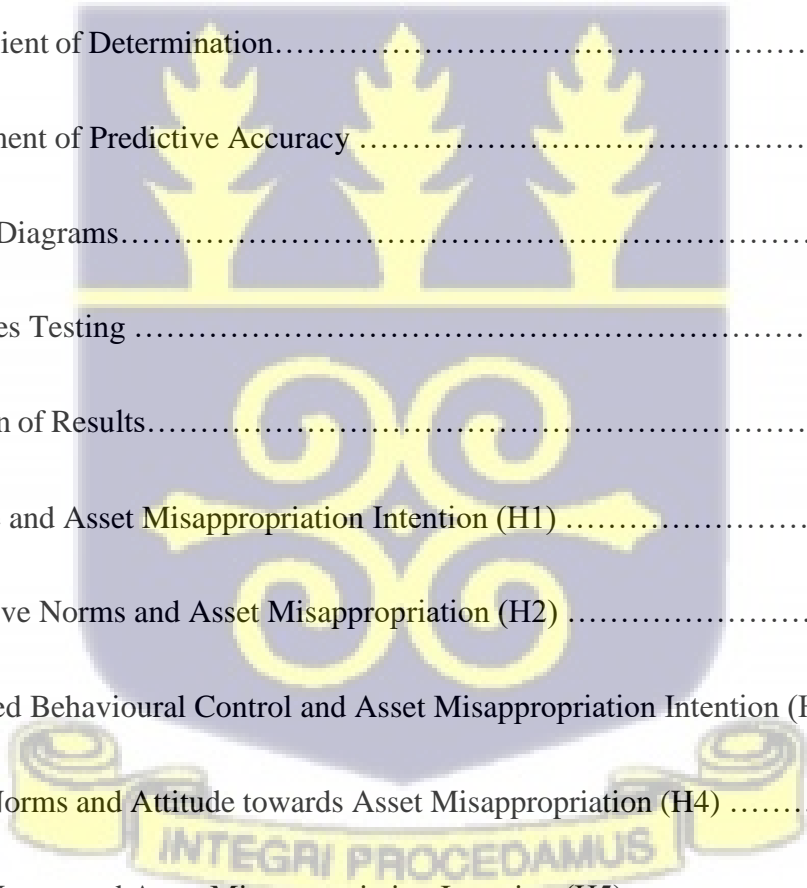
2.8.2 Subjective Norms and Asset Misappropriation Intention	43
2.8.3 Perceived Behavioural Control Asset Misappropriation Intention	44
2.8.4 Moral Norms and Attitude towards Asset Misappropriation.....	45
2.8.5 Moral Norms and Asset Misappropriation Intention.....	47
2.8.6 Mediating effect of Attitude.....	48
CHAPTER THREE	52
RESEARCH METHODOLOGY.....	52
3.0 Introduction.....	52
3.1 Research Paradigm	52
3.2 Research Design.....	54
3.3 Unit of Analysis.....	56
3.4 Target Population and Sample Size.....	57
3.5 Sampling Technique	59
3.6 Sources of Data.....	59
3.6.1 Designing the Questionnaire	60
3.6.2 Measuring Study Constructs.....	62
3.6.3 Ethical Considerations	63
3.6.4 Pilot Testing the Study.....	64



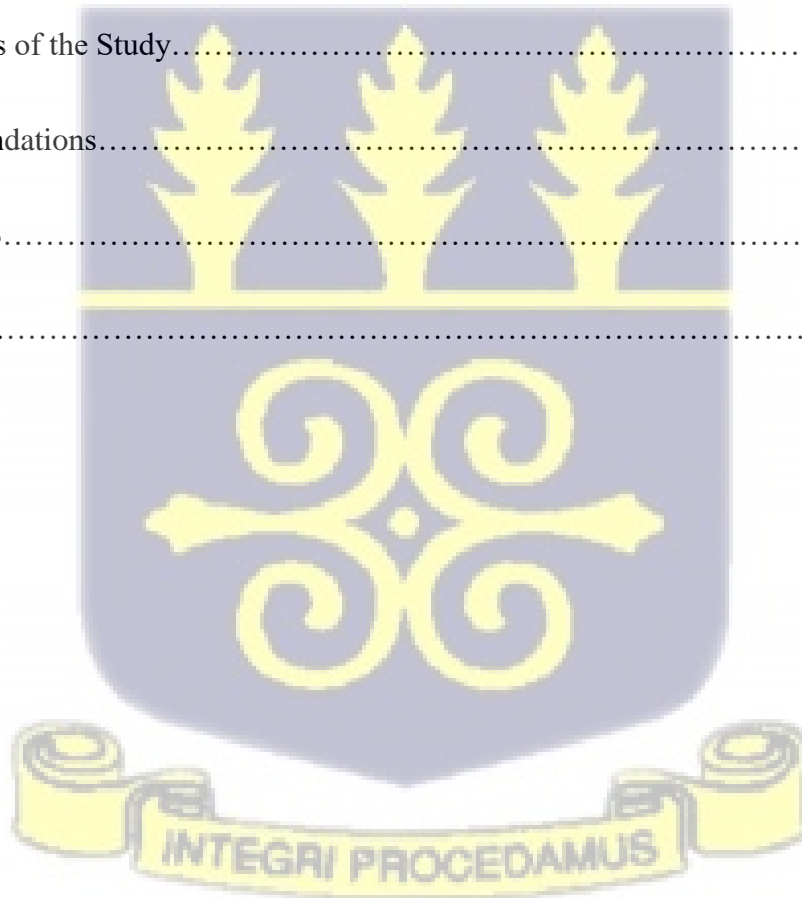
3.6.5 Administering Questionnaires.....	65
3.7 Data Analysis Techniques.....	66
3.7.1 Structural Equation Modelling	66
3.7.2 Co-Variance Based Structural Equation Model.....	67
3.7.3 Partial Least Square Structural Equation Model	67
3.7.4 Criteria for Selecting CB-SEM or PLS-SEM.....	69
3.8 Assessing the Measurement Model	71
3.8.1 Internal Consistency and Reliability.....	71
3.8.2 Convergent Validity	72
3.8.3 Assessment of Discriminant Validity.....	73
3.9 Assessing the Structural Model.....	75
CHAPTER FOUR.....	78
RESULTS AND DISCUSSION.....	78
Introduction.....	78
4.1 Demographics of Respondents.....	78
4.2 Descriptive Statistics of Study Constructs.....	81
4.3 Assessment of the Measurement model.....	85



4.3.1 Indicator Reliability	85
4.3.2 Internal Consistency.....	86
4.3.3 Convergent Validity	86
4.3.4 Discriminant Validity.....	87
4.4 Assessment of the Structural Model.....	91
4.4.1 Multicollinearity.....	91
4.4.2 Common Method Bias	92
4.4.3 Co-efficient of Determination.....	92
4.4.4 Assessment of Predictive Accuracy	93
4.5 The Path Diagrams.....	94
4.6 Hypotheses Testing	96
4.7 Discussion of Results.....	96
4.7.1 Attitude and Asset Misappropriation Intention (H1)	96
4.7.2 Subjective Norms and Asset Misappropriation (H2)	97
4.7.3 Perceived Behavioural Control and Asset Misappropriation Intention (H3)	98
4.7.4 Moral Norms and Attitude towards Asset Misappropriation (H4)	99
4.7.5 Moral Norms and Asset Misappropriation Intention (H5)	99
4.7.6 Mediation Analysis (H6)	100



CHAPTER FIVE	103
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	103
Introduction.....	103
5.1 Summary of Findings.....	103
5.2 Conclusions of the Study.....	105
5.3 Implications of Findings	107
5.4 Contributions.....	109
5.5 Limitations of the Study.....	110
5.6 Recommendations.....	111
REFERENCES	113
APPENDIX	145



LIST OF TABLES

Table 4.1: Demographic Characteristics of Respondents80

Table 4.2: Descriptive Statistics of Study Variables84

Table 4.3: Indicator Reliability..... 86

Table 4.4: Internal Consistency Reliability and Convergence Reliability88

Table 4.5: Fornell and Larcker Criterion for Discriminant Validity..... 89

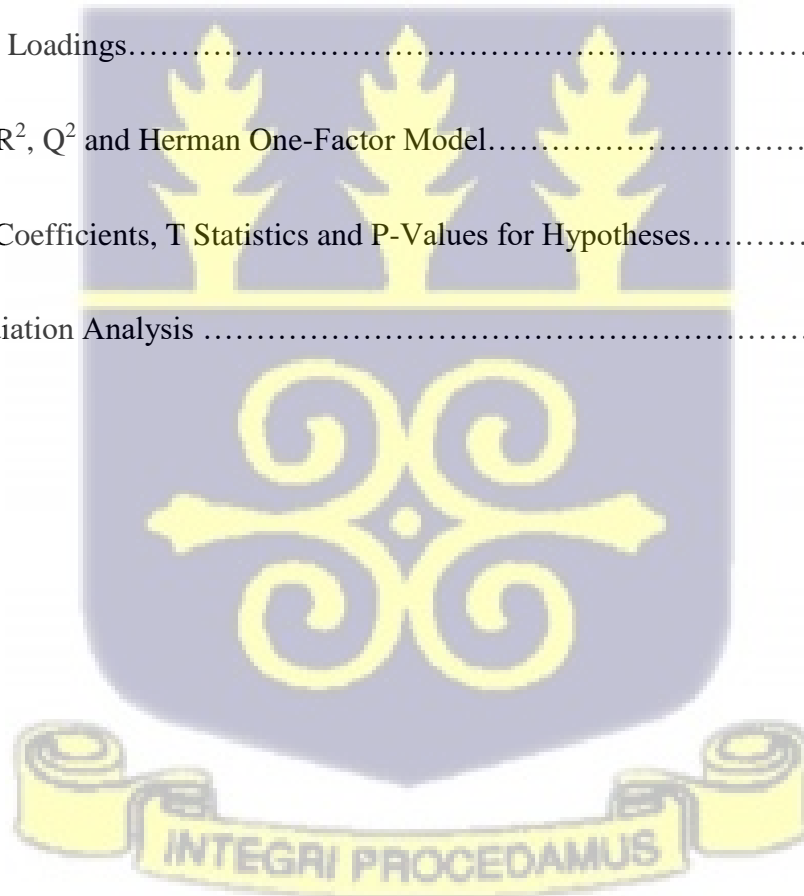
Table 4.6: HTMT Criterion for Discriminant Validity..... 89

Table 4.7: Cross Loadings..... 90

Table 4.8: VIF, R^2 , Q^2 and Herman One-Factor Model.....93

Table 4.9: Beta Coefficients, T Statistics and P-Values for Hypotheses.....96

Table 4.10: Mediation Analysis101



LIST OF FIGURES

Figure 2.1: Theory of Planned Behaviour33

Figure 2.2: Conceptual Framework.....42

Figure 4.1: Path Diagram (PLS Result).....94

Figure 4.2: Path Diagram (Bootstrapping Result).....95



LIST OF ABBREVIATIONS

ACFE - Association of Certified Fraud Examiners

AICPA – American Institute of Certified Public Accountant

ATM – Automatic Teller Machine

AVE - Average Variance Extracted

BoG - Bank of Ghana

CA - Cronbach Alpha

CB-SEM- Co-variance Based Structural Equation Modelling

CR - Composite Reliability

ECH - Ethics Committee for the Humanities

GDP – Gross Domestic Product

GEA – Ghana Enterprises Agency

HTMT - Heterotrait- Monotrait

IIA – Institute of Internal Auditors

ISA – International Standards of Auditing

MDAs – Ministries, Departments and Agencies

MMDAs – Metropolitan, Municipal, District Assemblies



MSME – Micro, Small and Medium Enterprises

NBSSI – National Board for Small Scale Industries

OLS - Ordinary Least Squares

OECD – Organization of Economic Co-operation and Development

PBC – Perceived Behavioural Control

PLS-SEM - Partial Least Square Structural Equation Modelling

PwC – PricewaterhouseCoopers

S.C.O.R.E. – Stimulus, Capability, Opportunity, Rationalization, Ego

SEM - Structural Equation Modelling

SME – Small and Medium Scale Enterprise

SSA – Sub Sahara Africa

TPB – Theory of Planned Behaviour

TRA – Theory of Reasoned Action

VIF - Variance Inflation Factor



ABSTRACT

This study investigates the factors influencing employees' intentions to engage in asset misappropriation, a common and largely overlooked issue in Accounting and Ethics, within the context of small and medium sized businesses. Guided by the Extended Theory of Planned Behaviour (ETPB), the research examines how attitudes, subjective norms, moral norms, and perceived behavioural control (PBC) shape employees' intentions to misappropriate assets. Adopting a descriptive survey design, data were collected through structured quantitative questionnaires from a target population of 600 across all the 29 local government areas of the Greater Accra region. Out of these, 470 valid responses were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that attitudes, subjective norms, and moral norms significantly influence employees' intentions to engage in asset misappropriation, whereas PBC does not exert a significant effect. The findings suggest that organizations should emphasize ethical training, cultivate positive moral values, and minimize social pressures that encourage unethical behaviour. The study concludes that fostering an ethical corporate culture grounded in integrity and moral responsibility is a more effective approach to reducing asset misappropriation than relying solely on control mechanisms.



CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Recent studies have identified fraud as a global concern due to its devastating impact on sustainability efforts and resource management (Zainal et al., 2022; Targo et al., 2024). The increasing prevalence of fraud poses a significant threat to the success and growth of both large and small businesses globally, as well as the economic stability and ecological integrity of nations (Mohd RazminA et al., 2024; Zahari et al., 2020; Mayhew & Murphy, 2014). More recently, renowned financial scandals, such as the collapse of Enron, in the United States and Diageo Plc. and BAE in the United Kingdom, have ignited the interest among stakeholders to find mitigation strategies to minimise and eradicate fraud (Abdullahi & Mansor, 2018; Kramer, 2015).

In addition, research indicates that occupational fraud not only affects the financial operations and economic prospects of entities but also erodes the trust of citizens in the economic system, resulting in broader societal impacts (Tarjo et al., 2024; Walker-Munro, 2020; Otchere et al., 2023). Statistical evidence shows that due to financial irregularities and occupational fraud, corporate entities lose close to 5% of their turnover annually, which is approximately US\$ 4.7 trillion (ACFE, 2022). Zainal et al. (2022) revealed that 2,504 occupational fraud and abuse cases were reported from 125 countries. In Sub-Saharan Africa (SSA) alone, it is estimated that countries within this context lose about US\$ 89 billion annually due to theft issues and illicit financial flows (Otchere et al., 2023).

The most challenging period for Ghana's banking sector occurred between 2017 and 2019, when the Bank of Ghana revoked the licenses of 16 universal banks, along with several savings and loans and micro-finance institutions, to address widespread dishonest practices by banking executives. The 2021 Bank of Ghana Fraud Report revealed a significant increase in financial losses due to fraud. Banks and Specialized Deposit-Taking Institutions (SDIs) lost GHC61 million in 2021, a 144% increase from GHC25 million in 2020. The losses resulted from various types of fraud, including cash suppression, fraudulent withdrawals, forgery, and cyber fraud. Notably, 53.46% of fraud cases in 2021 involved staff members, highlighting serious internal control issues within the sector.

These alarming figures demonstrate the urgency to understand the concept of occupational fraud and explore efficient fraud management and prevention techniques due to its underlying impact on the collapse of entities globally (Targo et al., 2024; Alazzabi et al., 2023).

The Association of Certified Fraud Examiners (ACFE, 2022) describes occupational fraud as “the act of exploiting one's job position to gain personal benefits by intentionally misusing or misapplying an organization's resources or assets”. In other words, occupational fraud occurs when an employee, manager, or executive takes advantage of their role within an organization to commit fraud. This can include activities like embezzling money, falsifying financial reports, or misusing company resources for personal gain (Targo et al., 2024; ACFE, 2022; Andoh et al., 2018). This depicts that occupational fraud poses a huge threat that could lead to organizational failure and economic, social, and environmental disasters, thus affecting the business continuity potential of firms (Mohd Razmin et al., 2024).

Despite being a persistent and costly issue for businesses of all sizes (Bataneh, 2010), occupational fraud has a more devastating impact on small businesses, where it poses a significant

threat to their survival and contributes to their failure (Cant, Wiid & Kallier, 2013). For example a report done by the ACFE in 2022 revealed that small businesses are the primary victims of fraud, with 30% of them being affected. The report also revealed that small and medium-sized businesses suffered an average loss of \$150,000 due to occupational fraud as compared to \$138000 for large entities.

Small Medium-sized Enterprises (SMEs) are identified as the backbone of sustainable growth in developed and developing nations (Andoh et al., 2018; Abor & Quartey, 2010). Particularly, a report by the World Bank revealed that SMEs operating around the world contribute about 70% of private output, employ about 70% of the working population, and constitute 90% of businesses (Andoh et al., 2018). Similarly in Ghana, SMEs contribute significantly to economic growth and sustainable development by contributing 70% to economic output and employs about 85% of the workforce (Abor & Quartey, 2010).

The growth and survival of SMEs are critical for achieving socio-economic development (Zainal et al., 2022; Mayhew & Murphy, 2014). However, SMEs face various challenges. One of these challenges is their vulnerability to occupational fraud. SMEs are particularly vulnerable because they typically operate with limited financial oversight, fewer managerial layers, and informal governance structures (Bozkurt & Tunç, 2020). Internal controls and anti-fraud mechanisms are therefore essential in safeguarding organizational assets, ensuring accountability, and deterring unethical behaviour among employees. However, despite their widespread adoption, evidence suggests that the presence of internal controls alone does not guarantee fraud prevention (Dorminey et al., 2012). In many cases, controls are circumvented through collusion or management override, or they fail due to weak enforcement and lack of ethical reinforcement (Abdullahi & Mansor, 2018).

While some SMEs have introduced measures such as segregation of duties, regular audits, and documentation of transactions, their effectiveness in curbing asset misappropriation remains questionable due to inadequate monitoring and ethical lapses among employees. As a result, there is growing scholarly interest in examining not only the structural strength of internal controls but also the behavioural and moral dimensions influencing employee compliance (Holtfreter, 2005; Murphy & Dacin, 2011). Evaluating the effectiveness of these internal controls within the SME context is therefore crucial to understanding how both procedural mechanisms and individual behavioural factors interact to either mitigate or perpetuate asset misappropriation.

Prior empirical studies point to rationalisation, opportunity, absence of controls, capability, and weak internal controls (Kramer, 2015; Koomson et al., 2020; Zainal et al., 2022; Maulidi et al., 2024; Mohd Razmin et al., 2024;) as some of the factors that may affect the intentions of individuals to engage in occupational fraud. Other researchers have also focused on attitudes, subjective norms, perceived behavioural control, and moral norms as factors responsible for the occurrence of occupational fraud (Korgaonkar et al, 2021; Nene, 2017; Bailey, 2006; Carpenter & Reimer, 2005). These factors emanate from the Theory of Planned Behaviour (TPB), which posit that behaviour is driven by intentions, which are influenced by attitudes toward the behaviour, subjective norms, and perceived behavioural control (Ajzen, 1991).

In the context of asset misappropriation, the theory can explain how employees' attitudes toward fraudulent behaviour, such as rationalizing theft due to perceived low risk of detection or financial pressures, shape their intention to commit fraud. Research has shown that individuals engage in unethical behaviour when they perceive it as beneficial or justifiable within their environment (Sparks & Pan, 2010). For example, employees in SMEs, where controls are often weaker, may

develop positive attitudes toward asset misappropriation if they believe that such actions can go unnoticed or if they feel underpaid (Dorminey et al., 2012).

The TPB also emphasizes the role of perceived social pressure to perform or avoid certain behaviours. In SMEs, the informal nature of relationships and the closeness between employees and management may foster a culture where unethical behaviour is either discouraged or, conversely, overlooked (Bierstaker et al., 2006). If employees perceive that their peers or supervisors tolerate or even engage in asset misappropriation, this perception can influence their own intentions to commit fraud (Beck & Ajzen, 1991). Therefore, understanding subjective norms in the organizational culture of SMEs is crucial for identifying the social influences that drive or deter fraudulent behaviour.

Perceived behavioural control reflects an individual's perception of how easy or difficult it would be to perform a particular behaviour. (Ajzen, 1991). In the context of asset misappropriation, this can be linked to the effectiveness of internal controls within SMEs. Studies suggest that the likelihood of fraud increases when employees perceive that internal controls are weak or easily bypassed (Albrecht et al., 2011). TPB allows researchers to analyse how employees' perceptions of control over fraudulent activities, whether through access to financial records or lack of oversight, influence their behaviour. SMEs, often lacking robust internal auditing systems, provide fertile ground for understanding how perceived control influences fraudulent intentions.

In addition, moral norms have been identified as a crucial factor that shapes the action and intentions of individuals (Ugrin & Odom, 2010; Knechel & Mintchik, 2022; Cohen et al., 2012). Moral norms are “beliefs about what is right and wrong that guide actions of individuals based on ethical considerations” (Cohen et al., 2012; Awag et al., 2019). In other words, they provide a framework that acts as an ethical compass to navigate ethical dilemmas (Houdek, 2020; Siregar &

Tenoyo, 2015). Prior empirical studies show that with the existence of strong moral norms, individuals are less likely to engage in unethical behaviour, and hence fraud (Awag et al., 2019). This suggests that moral norms could be a factor in understanding and explaining the intentions of individuals.

Furthermore, in SMEs, where control systems may be less formalised, employees' moral standards can serve as a crucial deterrent against fraudulent conduct. Studies have shown that strong moral convictions shape attitudes by framing fraudulent behaviour as unacceptable, thereby reducing the likelihood of rationalizing or justifying such acts (Beck & Ajzen, 1991; Treviño et al., 2006). Examining the relationship between moral norms and attitude would provide valuable insight into how ethical orientation influences employees' attitudes toward asset misappropriation and supports the argument that fostering moral awareness is vital for preventing occupational fraud.

This study aims to uncover the factors that encourage asset misappropriation among employees of SMEs in Ghana, recognizing the critical role SMEs play in the economy and the damaging effects of occupational fraud on their growth and sustainability. The research will provide valuable insights for SME managers, enabling them to develop strategies to reduce occupational fraud and ensure business sustainability.

1.2 Problem Statement

Although recent years have seen a rise in research on occupational fraud, certain gaps in the literature remain, which this study aims to address.

Firstly, studies on asset misappropriation have largely been centred in larger organizations, leaving a notable gap in studies addressing how SMEs are affected. SMEs possess unique characteristics, such as limited resources, less formalized internal controls, and a lack of dedicated anti-fraud

personnel, which make them particularly vulnerable to fraud (ACFE, 2022; Alleyne et al., 2023). Unlike larger firms, SMEs often lack robust governance frameworks, which increases their susceptibility to asset misappropriation and other forms of occupational fraud. Furthermore, the informal nature of many SME operations, coupled with resource constraints, often leads to weak or non-existent fraud prevention mechanisms (Koomson et al., 2020). Studies suggest that the absence of segregation of duties and effective internal audits exacerbates the risk of asset misappropriation in SMEs, yet this remains an underexplored area (Zainal et al., 2022). Understanding the dynamics of fraud in SMEs requires more targeted research that considers these distinct organizational challenges.

Secondly, research on occupational fraud, including asset misappropriation, is predominantly conducted in developed economies, which often have stronger regulatory environments and more structured organizational frameworks (Siddiqui, 2019). This creates a gap in understanding the challenges faced by SMEs in developing or transitional economies like Ghana, where informal business practices, limited enforcement of anti-fraud measures, and cultural attitudes toward ethical behaviour significantly influence fraud dynamics (Alazzabi et al., 2023; Targo et al., 2024). For instance, in many developing economies, SMEs operate within informal sectors where record-keeping and oversight are minimal, making it difficult to detect or prevent fraud (Alleyne et al., 2023; Andoh et al., 2018). Cultural factors also play a role, as societal norms and attitudes toward workplace ethics can differ significantly between regions, influencing employee behaviour (Zahari et al., 2020). Despite these challenges, few studies have investigated how these specific issues affect the prevalence and management of asset misappropriation in SMEs in developing economies (Talib et al. 2024). Addressing this gap could provide valuable insights into designing fraud mitigation strategies that are tailored to specific regional and economic contexts.

Thirdly, previous research has consistently shown that moral norms play a significant role in predicting unethical behaviours, including employee theft intentions. For instance, Kelkar & Emilius (2016), Korgaonkar et al. (2021) and Nene (2017) all found that moral norms significantly influence the likelihood of employees engaging in theft-related behaviours. Moral norms, which reflect an individual's internalized sense of moral obligation, have been highlighted as a key determinant in understanding behavioural intentions, particularly in ethically sensitive contexts. Ajzen, (1991) acknowledged the flexibility of the TPB to include additional variables, provided they make a distinct and significant contribution to explaining behaviour. This openness has led many studies in the context of occupational fraud to incorporate moral norms (Beck & Ajzen, 1991; Kelkar & Emelius, 2016; Korgaonkar et al., 2021; Nene, 2017; Tonglet, 2002). While moral norms have gained support as an important predictor and explain significant variance in behavioural intentions, there remains a debate about their integration into the TPB framework. Specifically, two perspectives dominate: one suggests that moral norms exert a direct influence on intentions, independent of TPB constructs (Meitriana, 2019; Shahangian et al., 2021; Tianawati et al., 2023), while the other posits that their effect is primarily indirect, mediated through TPB constructs like attitude (Ajzen, 1991; Liu et al., 2020; Tsai et al., 2022). For instance, Tsai (2022) argues that moral norms influence attitudes, as individuals evaluate behaviours based on their alignment with personal values. Although the indirect role of moral norms has been extensively studied in pro-environmental behaviours (Botetzagias et al 2015; Klockner, 2013; Li et al., 2023; Liu et al., 2020; Tsai & Tan, 2022), this mediating effect remains underexplored in the context of asset misappropriation. Existing research in this domain has primarily examined the direct effects of moral norms on intentions, focusing on the strength of the relationship. However, the mediated impact of moral norms through attitudes remains empirically untested in studies on occupational

fraud. Addressing this gap, this study aims to investigate whether moral norms indirectly influence behavioural intentions to misappropriate assets by shaping attitudes, thereby contributing to a more nuanced understanding of TPB's application in ethical decision-making contexts.

Finally, while significant attention has been given to organizational factors that enable fraud, there is insufficient research on the behavioural, psychological and socio-cultural drivers of employee intentions to misappropriate assets. Factors such as attitudes toward fraud, subjective norms, PBC and moral norms are critical in shaping employee behaviour, yet they remain understudied in the context of asset misappropriation (Chen & Lu, 2022; Saputra et al., 2023). These factors, derived from behavioural frameworks like the TPB, offer a deeper understanding of why employees may choose to engage in fraudulent acts (Chen & Lu, 2022; Korgaonkar et al., 2021). The rationalization process, often emphasized in traditional models like the Fraud Triangle (Cressey, 1953), provides limited insight into the nuanced behavioural intentions that precede fraudulent actions (Mustapha & Mahmud, 2023). Studies suggest that incorporating psychological constructs such as perceived fairness, ethical climate, and individual moral standards could yield a more comprehensive understanding of employee misbehaviour (Siahaan et al., 2019). As such, a study investigating the psychological, behavioural, socio-cultural and situational dimensions of asset misappropriation in SMEs is essential to develop effective prevention mechanisms.

This study aims to address the gaps identified in the problem statement above.

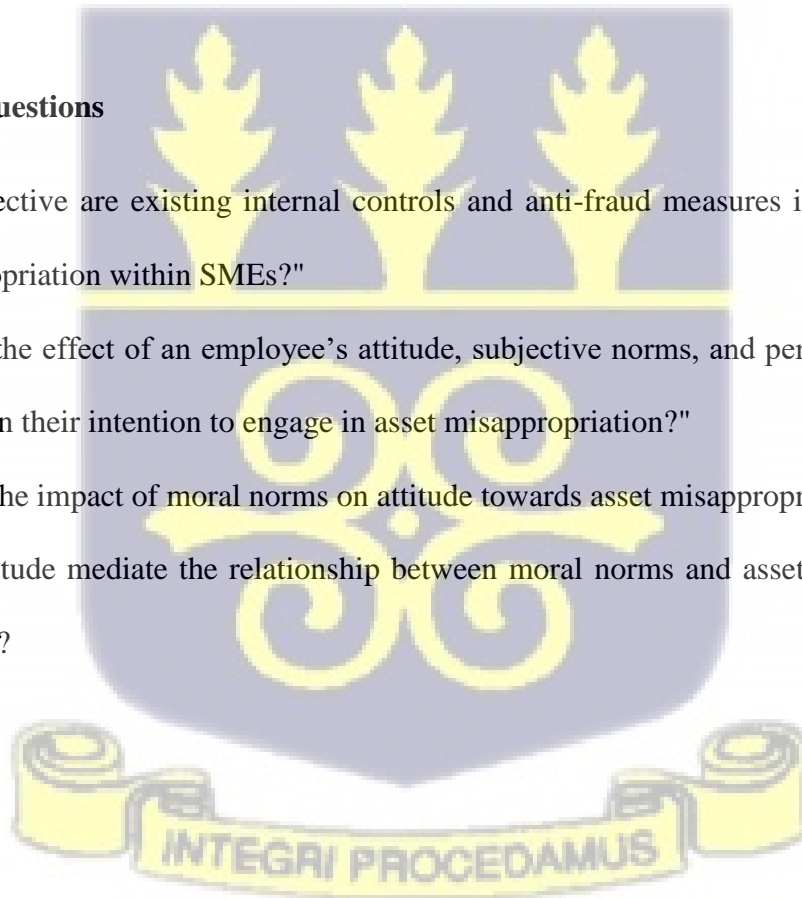


1.3 Objectives of the Study

- I. To evaluate the effectiveness of existing internal controls and anti-fraud measures in mitigating asset misappropriation within SMEs.
- II. To examine the effect of attitude, subjective norms, perceived behavioural control and moral norms on asset misappropriation intention.
- III. To ascertain the impact of Moral Norms on Attitude towards asset misappropriation.
- IV. To examine the mediating effect of attitude on the relationship between moral norms and asset misappropriation intention.

1.4 Research Questions

- I. How effective are existing internal controls and anti-fraud measures in mitigating asset misappropriation within SMEs?"
- II. What is the effect of an employee's attitude, subjective norms, and perceived behavioral control on their intention to engage in asset misappropriation?"
- III. What is the impact of moral norms on attitude towards asset misappropriation?
- IV. Does attitude mediate the relationship between moral norms and asset misappropriation intention?



1.5 Significance of the Study

This study makes two primary contributions:

To research, it addresses a critical gap in the literature on occupational fraud, specifically in the area of asset misappropriation. By examining factors that drive workplace theft and misuse of assets within small and medium enterprises (SMEs), this study offers fresh insights into an understudied area, providing valuable perspectives for academics focused on fraud prevention and workplace ethics.

To practice, the study's findings will be valuable to SME leaders who are seeking effective strategies to mitigate the risks of occupational fraud. By identifying the factors that influence employees to misappropriate assets, this research equips business owners with knowledge to develop robust internal controls, helping to reduce the occurrence of asset misappropriation and promote a more secure and ethical work environment.

This study contributes to policy formulation by providing evidence that can guide policies aimed at reducing occupational fraud in SMEs. The findings support the development of standardized guidelines for internal controls, encouraging cost-effective fraud prevention measures. Insights from the study could inform regulations mandating risk assessments, ethics training, and stronger reporting mechanisms within SMEs. Additionally, policymakers might consider incentivizing SMEs to adopt fraud prevention programs through tax benefits or grants, ultimately enhancing financial sustainability and ethical practices in small businesses.

1.6 Structure of the Thesis

This work is organized into five main chapters:

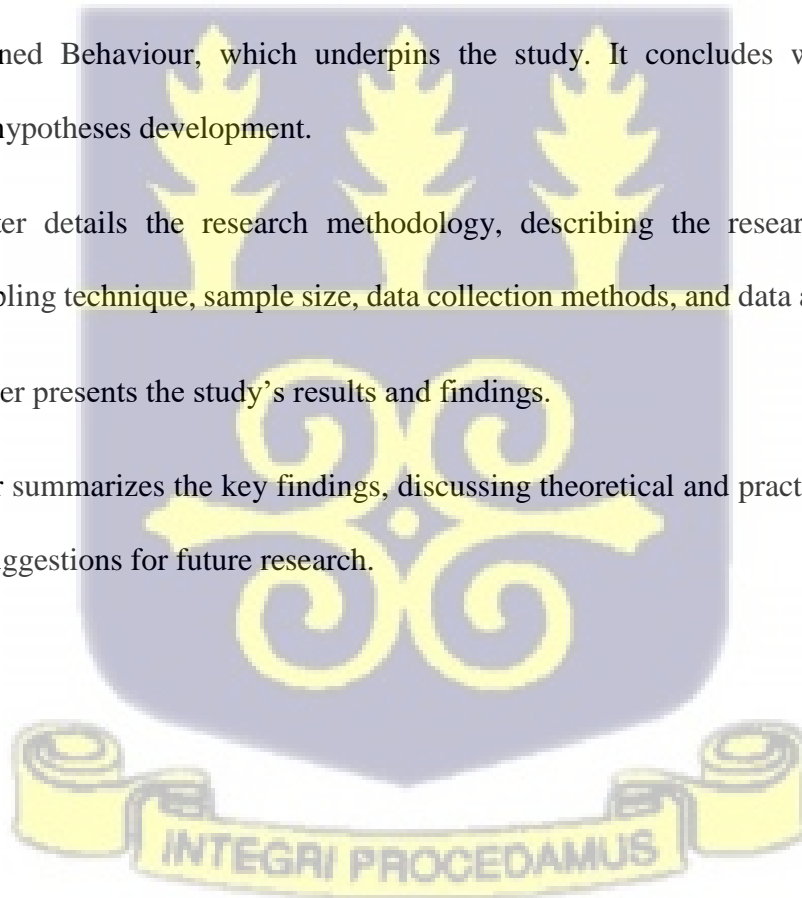
The first chapter introduces the study's core concepts, outlining its purpose, research problem, objectives, questions, and significance.

The second chapter provides a thorough literature review on occupational fraud, with a specific focus on asset misappropriation. This chapter discusses various forms of occupational fraud and includes a review of studies on fraud in SMEs, followed by an exploration of Ajzen's (1991) Theory of Planned Behaviour, which underpins the study. It concludes with a conceptual framework and hypotheses development.

The third chapter details the research methodology, describing the research design, target population, sampling technique, sample size, data collection methods, and data analysis approach.

The fourth chapter presents the study's results and findings.

The fifth chapter summarizes the key findings, discussing theoretical and practical contributions, and providing suggestions for future research.



CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter offers the literature review of the thesis. This thesis primarily examines the factors influencing individual employees' intention to misappropriate assets at work. The chapter addresses the historical background and the various types of occupational fraud followed by a brief review of some scholarly work on asset misappropriation in SMEs. The chapter concludes with a discussion of the theory underpinning the study, the research framework, and the study's hypotheses.

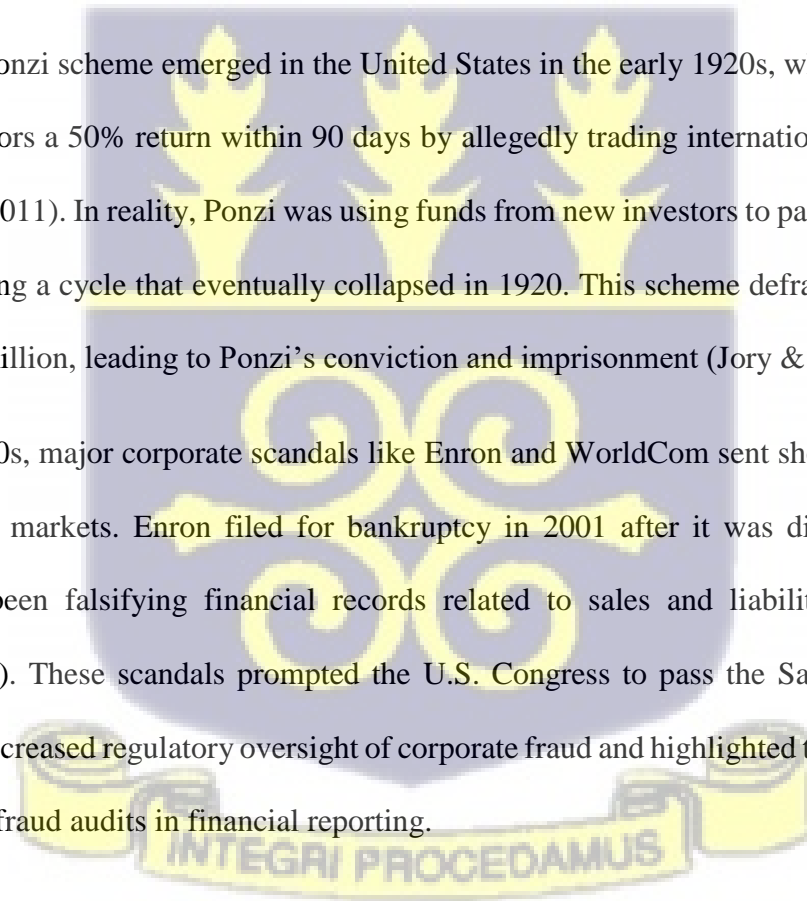
2.1 A Brief History of Occupational Fraud

The concept of occupational fraud dates back centuries, beginning when humans started organizing agriculture and raising livestock. Flock owners hired shepherds to protect and care for their animals, often paying them minimum wages in barley, which left them unable to join the wealthy flock-owning elite (Nigrini, 2020). One of the earliest documented cases of occupational fraud occurred in Mesopotamia (modern-day Iraq and Kuwait). Guskin, a flock owner, hired a young shepherd named Ishme to care for his sheep. Over the years, Ishme devised a scheme with his brother Amar to steal some of the flock. When a ewe gave birth to two lambs, Amar would take one, and the brothers eventually amassed their own flock, claiming their wealth came from trading in olive oil futures (Nigrini, 2020).

Moving forward to the seventeenth century, the establishment of the first companies in Europe created new opportunities for fraud. One of the earliest and most notorious corporate scandals was the South Sea Bubble in Great Britain in 1720 (Singleton & Singleton, 2010). The directors of the South Sea Company convinced the public to buy shares with promises of massive profits. By August 1720, the company's share price had skyrocketed to £1,000. However, when it became apparent that the company could not deliver the promised profits, investors began selling their shares, causing the price to plummet to £150 by December. Charles Snell, the first external accountant hired to investigate a company's accounts, uncovered widespread fraud among the board members, leading to asset confiscations (Singleton & Singleton, 2010).

The infamous Ponzi scheme emerged in the United States in the early 1920s, when Charles Ponzi promised investors a 50% return within 90 days by allegedly trading international reply coupons (Jory & Peery, 2011). In reality, Ponzi was using funds from new investors to pay returns to earlier investors, creating a cycle that eventually collapsed in 1920. This scheme defrauded over 40,000 people of \$15 million, leading to Ponzi's conviction and imprisonment (Jory & Peery, 2011).

In the early 2000s, major corporate scandals like Enron and WorldCom sent shockwaves through global financial markets. Enron filed for bankruptcy in 2001 after it was discovered that the company had been falsifying financial records related to sales and liabilities (Singleton & Singleton, 2010). These scandals prompted the U.S. Congress to pass the Sarbanes-Oxley Act (SOX), which increased regulatory oversight of corporate fraud and highlighted the role of forensic accounting and fraud audits in financial reporting.



2.2 The Concept of Fraud

The concept of fraud is complex, both in legal theory and business practice. Contrary to simplistic public perceptions, fraud encompasses a spectrum of misconduct. In a business context, these can extend from an employee falsifying a sick leave request to pursue private business to the unauthorized use of company assets. Due to the term's conceptual difficulties, scholars and organizations have provided a number of definitions from various angles.

The International Standards on Auditing (ISA) gave a definition from a corporate setting perspective. The standards defined fraud as “an intentional act by one or more individuals among management, those charged with governance, employees or third parties, involving the use of deception to obtain an unjust or illegal advantage” (ISA 240, p.5).

Coming from the professional viewpoint, the American Institute of Certified Public Accountant (AICPA) defined fraud as “intentional act that results in a material misstatement in financial statement that are the subject of an audit” (AICPA, 2002). It should be noted that, these organizations conceptualized fraud from the civil perspective. Fraud could also be looked at from the criminal perspective. For example, Smith (2001, p.1) described fraud as a broad classification of criminal activities that involve deceitful or dishonest practices to gain an unfair advantage over others.

2.3 Types of Occupational Fraud

The ACFE describes occupational fraud as “the act of exploiting one's job position to gain personal benefits by intentionally misusing or misapplying an organization's resources or assets”. The ACFE grouped frauds perpetrated against organizations into three main categories namely;

misappropriation of assets, corruption and financial statement fraud with various fraud schemes under each category.

2.3.1 Corruption

Corruption is generally defined as the misuse of entrusted power for private gain. According to the ACFE, (2018), corruption constitutes one of the three major categories of occupational fraud and abuse, alongside asset misappropriation and financial statement fraud. What distinguishes corruption from the other two categories is its emphasis on the abuse of authority and wrongful influence to secure personal or third-party benefits (ACFE, 2018; Albrecht et al., 2016).

Transparency International (2001), as cited in Andersson and Heywood (2009), defines corruption as “the misuse of entrusted power for personal gain”. Similarly, Gottsalck (2010) characterizes corruption as the improper use of public office for personal advantage, describing it as “the act of giving, requesting, receiving, or accepting an undue benefit related to a position or assignment”. Kurer and Jain (2001), as referenced in Zimelis (2020), view corruption as instances where public officials, bureaucrats, legislators, and politicians exploit their delegated authority to serve their own financial interests at the expense of the public good. Furthermore, Andersson and Heywood (2009), in their analysis of Transparency International’s definition, define corruption as the abuse of power for illicit financial gain. They argued that persons who do not wield entrusted power do not get involved in corruption.

The ACFE (2018) identifies four main forms of corruption conflicts of interest, bribery, illegal gratuities, and economic extortion. Each of these represents a distinct way in which individuals exploit their positions of power for unethical or illicit advantage. Conflict of interest occurs when

an individual in a position of trust has an undisclosed financial or personal interest that could improperly influence their professional judgment or decisions (ACFE, 2018). For instance, an employee may approve contracts or purchases that benefit a company in which they hold a financial stake, leading to biased decisions and undermining organizational integrity.

According to the ACFE, (2018) bribery involves “the offering, giving, receiving, or soliciting of something of value with the intent to influence the performance of an official act or business decision”. It may occur in both public and private sectors, taking the form of either official or commercial bribery depending on the context. The primary objective is to manipulate decision-making processes to favor the giver or receiver of the bribe.

Illegal gratuities, on the other hand, share similarities with bribery but differ mainly in timing and intent. In cases of illegal gratuities, a benefit or reward is given after an official act has been performed, rather than as an inducement beforehand. Although there may be no prior agreement to influence a decision, the act still represents an abuse of power and a breach of ethical standards (ACFE, 2022)

Economic extortion occurs when someone in a position of authority coerces another person into providing money, goods, or services through threats, intimidation, or the misuse of power. Victims may comply to avoid harm or to secure something to which they are legitimately entitled. Such acts are particularly harmful in both public and private institutions, as they erode trust and promote a culture of fear and unethical compliance (ACFE, 2018).

Although corruption schemes occur less frequently than asset misappropriation, they typically result in higher financial losses and pose greater reputational risks (ACFE, 2022). These schemes are often more difficult to detect because they rely on influence and discretion rather than overt

theft. For SMEs, understanding the various forms of corruption is vital to designing effective anti-fraud policies and internal controls. Organizations must adopt proactive measures to mitigate risks related not only to asset misappropriation but also to bribery, conflicts of interest, economic extortion, and illegal gratuities.

2.3.2 Financial Statement Fraud

Financial statement fraud, while not frequently encountered, can result in substantial financial losses when it does occur. The (ACFE) (2022) emphasizes that, despite constituting only 9% of the 2,110 fraud cases analysed, financial statement fraud incurred average losses of USD 593,000 per case, demonstrating its severe financial impact. According to the ACFE, financial statement fraud refers to “the intentional misstatement or omission of material information in financial reports by employees”, distinguishing it from errors or accidental misstatements. This distinction is crucial, as financial statement fraud involves deliberate manipulation by skilled individuals or teams intent on deceiving financial statement users (Rezaee, 2005; Omidi et al., 2021).

Academic literature identifies several methods by which financial statement fraud is executed. A common tactic is timing differences, where revenues or expenses are recorded in incorrect periods to create artificial profit fluctuations. By misrepresenting the timing of financial transactions, perpetrators can inflate or deflate reported profits in specific periods to suit organizational goals (Nigrini, 2019). Another prevalent method involves fictitious revenues, where companies record sales that did not occur, either by creating nonexistent customer accounts or by inflating invoices for actual clients (Wells, 2017). This approach allows companies to exaggerate their earnings and mislead stakeholders about their financial performance.

Improper asset valuations also play a significant role in financial statement fraud, with companies overstating or understating assets to manipulate the perceived financial stability of the organization. By presenting distorted asset values, companies can falsely boost their market value or, conversely, reduce their tax liabilities (Brennan & McGrath, 2019). Further, concealment of assets and expenses or the overstatement of liabilities can distort a company's financial health. For example, omitting liabilities like loans or warranties inflates equity, while overstating expenses reduces taxable income (Zahari et al., 2020).

Improper disclosures further enable manipulation, as companies may inadequately disclose related party transactions, contingent liabilities, or material accounting changes. These omissions or misstatements can lead investors and other stakeholders to misjudge the company's financial condition (Linsley & Lawrence, 2007). Misleading disclosures create an inaccurate narrative, potentially causing significant harm to shareholders and creditors who rely on truthful financial information. The motivations behind financial statement fraud typically include pressures to meet financial targets, secure loans, or maintain share prices, especially during economic downturns or periods of declining performance (Abdullahi & Mansor, 2018). As companies face increasing scrutiny, understanding these fraud mechanisms and mitigating their occurrence is critical for regulators, auditors, and stakeholders who rely on transparent reporting to make informed financial decisions.

2.3.3 Misappropriation of Assets

The ACFE describes asset misappropriation as a fraudulent scheme where an employee steals or improperly uses their organization's resources. This includes acts such as cash theft, false billing,

and inflated expense claims. Similarly, Le and Tran (2018) describe asset misappropriation as the act of employees, managers, or third parties stealing an organization's resources. The International Standards on Auditing (ISA) 240 further clarifies asset misappropriation as the theft of a firm's assets, typically in smaller amounts, and often perpetrated by employees. Meanwhile, KPMG (2013) highlights that asset misappropriation encompasses both the theft and unauthorized use of resources for personal benefit. Asset misappropriation is conceptualized as the most prevalent form of occupational fraud, involving the deliberate theft or misuse of an organization's resources by an individual entrusted with their custody (ACFE, 2022). Unlike corruption, which centres on the abuse of influence, or financial statement fraud, which aims to deceive stakeholders, asset misappropriation is characterized by the direct diversion of assets for personal gain. This encompasses a spectrum of schemes, typically categorized by the ACFE into cash-based schemes such as skimming unrecorded revenue, larceny of recorded cash, and fraudulent disbursements through billing, payroll, or expenses and non-cash schemes, including the theft or misuse of inventory, supplies, or intellectual property (ACFE, 2022)

According to the ACFE (2022), asset misappropriation schemes are highly prevalent, comprising 86% of all occupational fraud cases, making them the most common form of fraud within organizations. The ACFE's Fraud Tree categorizes these schemes into seven types: skimming, cash larceny, check tampering, register disbursements, billing, payroll and expense reimbursement, and inventory and other asset schemes. Broadly, asset misappropriation can be divided into cash misappropriation and misappropriation of inventory and other assets (ACFE, 2022). Cash misappropriation is further classified into theft of cash on hand and theft of cash receipts, such as skimming and cash larceny.

Asset misappropriation is a critical concern for SMEs due to the sector's relative lack of resources, internal controls, and susceptibility to internal fraud. SMEs are particularly vulnerable because they often lack comprehensive internal control systems, making it easier for employees to exploit weaknesses in monitoring and reporting (Free & Murphy, 2015; Brennan & McGrath, 2019).

The limited financial and human resources of SMEs often mean they cannot afford dedicated fraud prevention measures or specialized forensic auditors (Zainal et al., 2022). Zahari et al. (2020) highlight that these constraints contribute to SMEs being more prone to employee theft and misappropriation schemes, including skimming, larceny, and billing schemes. Studies show that fraud in SMEs frequently involves small but continuous acts of misappropriation, such as skimming and cash larceny, which gradually accumulate to significant financial losses (Alleyne & Amaria, 2013; Rae & Subramaniam, 2022).

The absence of a clear separation of duties in SMEs also intensifies the risk. According to Kramer (2015), employees in smaller firms often take on multiple roles, creating opportunities for the misappropriation of assets that larger firms, with stricter oversight and role division, might prevent. For instance, an employee responsible for both purchasing and invoice processing might engage in a billing scheme, generating fake invoices or inflating expenses without detection. In fact, billing schemes alone accounted for 20% of all asset misappropriation cases in 2022, with median losses of USD 100,000, further highlighting the potential financial risk to SMEs (ACFE, 2022).

In developing economies, Abor and Quartey (2010) note that SMEs play a significant role in economic growth, yet they face a high incidence of asset misappropriation, affecting their sustainability. The financial impact of asset misappropriation on SMEs can be devastating due to their limited capacity to absorb losses, with Bressler and Bressler (2007) finding that around 30% of small businesses fail due to fraud-related losses. In addition to the immediate financial loss,

reputational damage and the erosion of trust between employees and management can hinder growth and threaten business continuity (Zainal et al., 2022).

Additionally, Lokanan (2018) suggests that asset misappropriation in SMEs is often perpetuated by a culture of informality, where close interpersonal relationships may lead to relaxed oversight. This informality can also blur boundaries between business and personal expenses, making SMEs more vulnerable to expense reimbursement fraud and other forms of misappropriation. While small businesses tend to place trust in long-standing employees, the lack of systematic fraud detection measures may lead to prolonged undetected fraud (Omidi et al., 2021). Research therefore stresses the need for SMEs to adopt basic fraud prevention practices, such as rotating duties, implementing dual authorizations for payments, and establishing whistleblower policies to mitigate risks associated with asset misappropriation (Free & Murphy, 2015; Lokanan, 2018).

In sum, asset misappropriation presents a considerable threat to SMEs, impacting their financial health and stability. The development of cost-effective, scalable fraud prevention mechanisms is essential to protect SMEs from the operational and financial damage posed by internal fraud.

2.4 Small and Medium Sized Enterprises (SMEs)

Small and Medium-sized Enterprises (SMEs) are pivotal to the global business landscape, significantly contributing to production and providing substantial employment opportunities. Andoh, et al, (2018) highlight that SMEs constitute a core element in economic frameworks worldwide due to their extensive contributions to both employment and productivity. In OECD countries, SMEs comprise more than 99% of companies, contributing on average two-thirds of the

Gross Domestic Product (GDP), which further reinforces their essential role in economic transformation.

Being very integral to Ghana's economic development, SMEs contribute significantly to employment, poverty reduction, regional development, and innovation. SMEs constitute 92% of businesses in Ghana, employ more than 80% of the workforce, and account for 70% of national output, making them the backbone of the economy (Ghana National Micro, Small, and Medium Enterprises Policy, 2019). Their role spans various economic sectors, and they play a crucial part in the country's GDP, fostering both social and economic resilience. This high proportion emphasizes the sector's role in sustaining economic growth and supporting a substantial portion of the working population. SMEs serve as the largest employer in Ghana, particularly for vulnerable groups such as youth, women, and low-skilled workers. By employing large segments of the population, they contribute directly to poverty reduction and economic stability (Andoh et al., 2018; Zainal et al., 2022). Achieving the Sustainable Development Goals (SDGs), particularly Goal 8, which advocates for equitable and sustainable economic development and decent work for all, depends largely on the job creation of SMEs (UNDP, 2021). According to Quartey et al. (2017), the ability of SMEs to generate income and reduce poverty has positioned them as critical drivers of economic growth and equitable development.

SMEs are essential to Ghana's GDP, providing a substantial share of the country's private sector output. By diversifying economic activities across sectors such as agriculture, manufacturing, and services, SMEs help stabilize the economy, reducing dependence on a few large industries and making the economy more resilient to external shocks (Abor & Quartey, 2010; OECD, 2020). According to Zahari et al. (2020), this diversification strengthens economic foundations, enabling Ghana to sustain growth even during periods of global uncertainty.

SMEs are distributed throughout both urban and rural areas, helping to promote balanced regional development and decentralize economic activities. In rural areas, SMEs involved in agro-processing, local crafts, and services play a vital role in supporting local economies and reducing rural-to-urban migration, which eases the strain on urban infrastructure (Kayanula & Quartey, 2000). This decentralization of economic activities supports equitable growth across regions and strengthens rural economies, as emphasized by Bressler and Bressler (2021), who argue that regionally dispersed SMEs are fundamental to balanced economic development.

SMEs contribute to a culture of innovation and entrepreneurship by continually adapting to market demands and introducing new products and services, especially in sectors like technology, manufacturing, and agriculture (Quartey et al., 2017; Omid et al., 2021). According to Rae and Subramaniam (2022), the need for adaptability in SMEs promotes on-the-job training, enhancing the skills of their workforce. This development of a skilled labour force benefits the broader economy, providing a more dynamic and adaptable workforce. SMEs play a vital role in building and sustaining local supply chains by acting as suppliers, service providers, and subcontractors for larger firms. This collaboration not only strengthens domestic supply chains but also reduces reliance on imports, keeping revenue within the Ghanaian economy (Lokanan, 2018; Brennan & McGrath, 2019). For example, SMEs in Ghana's agricultural sector supply raw materials to larger processing companies, creating symbiotic relationships that support local industry and economic resilience (Andoh et al., 2018).

In Ghana, SMEs are involved in producing goods for export, particularly in sectors like agriculture, textiles, crafts, and processed foods. By contributing to exports, SMEs help increase foreign exchange earnings and reduce the trade deficit. Abor and Quartey (2010) note that Ghanaian SMEs export products like cocoa, leather, and handicrafts, which enhance the country's global economic

integration. This export activity also drives SMEs to improve their quality standards, increasing competitiveness on the international stage (Zainal et al., 2022).

Beyond their economic impact, SMEs in Ghana play a significant role in socioeconomic empowerment, particularly for women and youth, who are often marginalized in the labour market. Women-owned SMEs have increased significantly, helping to close the gender gap in economic participation and promote inclusive growth (Kennedy & Benson, 2021; Andoh et al., 2018). Youth entrepreneurship initiatives within the SME sector also reduce youth unemployment, fostering innovation and contributing to self-reliance and economic stability (Zainal et al., 2022).

In conclusion, SMEs are fundamental to Ghana's economic development, supporting growth through employment, regional development, supply chain enhancement, innovation, and social empowerment. These contributions underscore the importance of policy interventions to support SME growth, such as improved access to finance, streamlined regulatory processes, and enhanced capacity-building programs. Strengthening these areas will enable SMEs to continue driving Ghana's economy and ensure long-term economic sustainability.

2.4.1 Definition of Small and Medium Enterprise (SMEs)

There is no universally agreed-upon definition of SMEs, as definitions vary widely between countries and regions. Criteria used to define SMEs often differ based on each country's economic context, industrial structure, and regulatory standards. (Ekpeyong & Nyong, 1992; Egbuogu, 2003). Researchers and institutions typically use criteria such as employment size, financial capacity, annual turnover, and capital investment to define SMEs (Carpenter, 2003). In industrialized nations such as the United States, Britain, and Canada, SMEs are frequently defined

in terms of annual sales and the number of employees. For example, in Britain, SMEs are defined as businesses with up to 200 employees and annual sales of up to €2 million (Egbuogu, 2003). This diversity in definitions underscores the need for contextual specificity when discussing SMEs, as parameters often differ significantly between countries and continents (Egbuogu, 2003).

In Ghana, SME definitions have similarly varied based on employment size, asset value, and specific institutional criteria. For example, the Ghana Statistical Service (GSS) classifies businesses with fewer than ten employees as small-scale enterprises, whereas those with ten or more employees are categorized as medium- or large-scale enterprises. (Quartey & Abor, 2010).

The National Board for Small Scale Industries (NBSSI), now the Ghana Enterprises Agency (GEA), uses both employment size and capital investment to define SMEs. According to the NBSSI, small enterprises employ up to nine persons and have fixed asset values not exceeding 10 million Ghana cedis. Other researchers, such as Osei et al. (1993) and Teal (2002), have applied employment-based criteria, defining SMEs as firms that employ up to 30 people or between 5 and 99 workers, respectively. The ACFE adopts a more general classification, defining small businesses as those employing fewer than 100 persons. Recognizing the need for updated definitions, the Ministry of Trade and Industry and the NBSSI introduced a revised SME definition in their 2019 National Micro, Small and Medium Enterprises Policy. This policy, designed to better align with current economic realities, classifies enterprises based on employment size, annual turnover, and asset value. A micro enterprise is defined as one employing up to five persons, with an annual turnover of less than USD 2,500 and assets below USD 25,000. Small enterprises are defined as those employing between 6 and 30 persons, with an annual turnover of USD 25,000 to USD 1 million and assets valued between USD 25,000 and USD 1 million. Medium enterprises employ 31 to 100 persons, with annual turnovers and asset values ranging between USD 1 million

and USD 3 million (NMSME Policy Document, 2019). This study, however, adopts employment size as the sole criterion for defining SMEs, acknowledging challenges in accurately assessing asset values. This approach aligns with other Ghanaian studies, such as those by Ocloo et al. (2014), Donkor et al. (2017), and Andoh et al. (2018). For the purposes of this research, SMEs are defined as enterprises employing between 6 and 99 persons.

2.5 Theoretical Literature Review

Several theories have been instrumental in studying employee deviant behaviours, particularly those related to theft and asset misappropriation. One such theory is Equity Theory, which suggests that employee theft may stem from perceived imbalances between an employee's efforts and their compensation (Kelkar & Emilus, 2016). When employees feel they are not compensated fairly for their work, they may attempt to "correct" this perceived inequity by stealing to balance out what they see as an unfair situation. In this sense, theft becomes a means of redressing perceived injustice, enabling employees to justify their actions as a way to restore equilibrium.

Organizational Justice Theory offers another lens, positing that employees assess an organization's fairness based on factors such as pay equity, opportunities for advancement, and hiring practices. When employees feel undervalued either through low pay, lack of recognition, or perceived unfair treatment they may seek to self-correct by taking from the organization as a form of compensation (Nene, 2017). In cases of perceived injustice, employees may resort to theft or asset misappropriation as a way of providing themselves with an unofficial raise.

Social Learning Theory (SLT) also offers valuable insights for studies on employee misbehaviour. Developed by Albert Bandura in 1977, SLT suggests that individuals learn behaviours by

observing, imitating, and modeling others within their social environment. Unlike traditional learning theories, which emphasize learning through direct personal experience, SLT highlights the importance of vicarious learning, where individuals learn by watching the actions and outcomes of others' behaviours.

According to SLT, individuals are more likely to adopt behaviours they see being rewarded or left unpunished, a phenomenon known as vicarious reinforcement. The key components of SLT include attention (noticing the behaviour), retention (remembering what is observed), reproduction (having the capability to replicate the behaviour), and motivation (having a reason to adopt the behaviour) (Bandura, 1977). These elements together explain how employees may adopt misbehaviour in the workplace if they observe such actions being normalized or rewarded in their organizational environment. SLT suggests that employees are more likely to engage in deviant behaviours, such as asset misappropriation, if they see others, particularly peers or managers, performing these actions without facing consequences.

The Theory of Planned Behaviour (TPB) is particularly relevant in examining the motivations behind asset misappropriation and other forms of employee theft. Originally designed to predict volitional behaviours, TPB has been increasingly recognized as a valuable framework for understanding actions like shoplifting and workplace theft. TPB posits that behaviour is driven by three primary factors: attitude toward the behaviour, subjective norms, and perceived behavioural control (Ajzen, 1991). In the context of asset misappropriation, an employee's positive or neutral attitude towards misappropriating assets, perceived social acceptance of such actions (if others in the organization engage in similar behaviours), and a high level of perceived control (e.g., feeling that detection is unlikely) can collectively increase the likelihood of asset misappropriation (Bailey, 2006).

In summary, by applying theories like Equity Theory, Organizational Justice Theory, Social Learning Theory and Theory of Planned Behaviour, researchers can better understand why employees may engage in deviant behaviours, such as asset misappropriation. These theories highlight how feelings of unfair treatment, perceived injustices, and volitional factors collectively influence an employee's decision to engage in such behaviour.

This study, however, centres on the TPB to offer a theoretical foundation for examining the phenomenon of asset misappropriation in SMEs. By applying TPB as the guiding theoretical model, this study aims to better understand and explain the factors driving asset misappropriation within the SME sector, ultimately providing insights for developing effective preventive measures.

2.5.1 Theory of Planned Behaviour (TPB)

The TPB is one of the most widely researched and applied frameworks in understanding human behaviour. Developed by Dr. Icek Ajzen in 1991 as an extension of the Theory of Reasoned Action (TRA), TPB has, for over two decades, been applied widely to studies focused on predicting individual behavioural intentions and actual actions. TRA was first formulated by Dr. Martin Fishbein in 1967 from research on attitudes in expectancy-value models, initially examining attitude towards objects and actions related to them (Fishbein et al., 1992). In the 1970s, Fishbein and Ajzen collaborated to address the gap between attitudes and behaviours, resulting in TRA in 1980, which linked attitudes and behaviour to voluntary actions. However, as voluntary behaviour was found to be not entirely under an individual's control, Ajzen introduced perceived behavioural control to the model, transforming TRA into TPB. This change allowed TPB to account for

deliberate and planned behaviour, particularly when the behaviour is not fully voluntary (Ajzen, 1991).

Rooted in social psychology, TPB has significantly influenced research and practical applications across various fields, including health behaviour, organizational settings, and behavioural studies (Ajzen, 2002). Its applications include studying health and leisure choices (Driver & Ajzen, 1991), dishonest actions like cheating and stealing (Beck & Ajzen, 1991), shoplifting (Tonglet, 2002), employee theft in retail (Korgaonkar et al., 2021), and fraudulent financial reporting (Carpenter & Reimers, 2005). TPB has thus become foundational for understanding behaviours across different contexts, including those of employees in organizations. The TPB consists of three key variables: attitude, subjective norms, and perceived behavioural control (PBC). These factors interact dynamically to shape an individual's behavioural intention, which Ajzen (1991) defines as the motivation or desire to engage in a specific behaviour. Behavioural intention is central to TPB, as it serves as the strongest predictor of actual behaviour. In the view of Ajzen (2002), an individual's likelihood of acting on their intention is determined by its strength, as long as they believe they possess the required resources and capability to do so.

Attitude represents an individual's favourable or unfavourable assessment of engaging in a particular behaviour. A positive attitude enhances the intention to perform the behaviour, whereas a negative attitude weakens it (Fishbein & Ajzen, 2010). Studies confirm that attitudes toward specific behaviours, such as compliance with workplace norms or ethical standards, play a crucial role in predicting intentions (Conner & Armitage, 1998). For example, in organizational settings, if employees perceive misappropriating assets as morally unacceptable and damaging, they are less likely to develop intentions to engage in such actions (Beck & Ajzen, 1991). The influence of

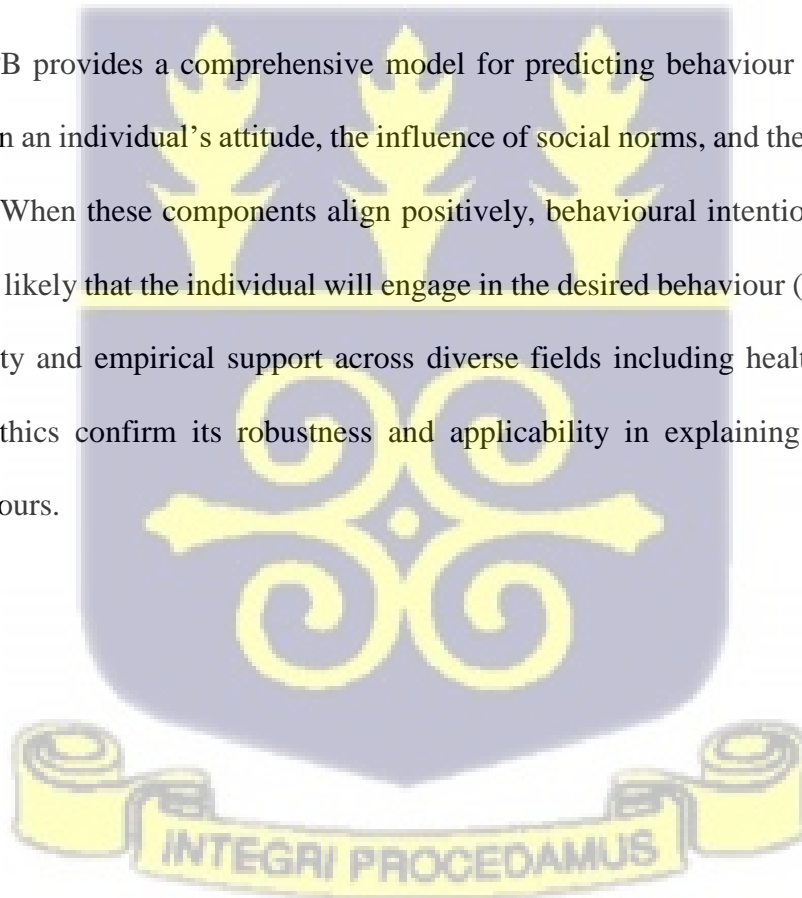
attitude is particularly strong when the individual believes that engaging in the behaviour will produce desirable outcomes, such as personal or organizational benefits (Sutton, 2020).

Subjective norms refer to the social pressures an individual perceives regarding whether to engage in a particular behaviour. These norms include the expectations and influences of peers, family, colleagues, or other significant groups (Ajzen, 2011). Research indicates that when individuals feel that influential figures within their social circles approve of or perform a specific behaviour, they are more likely to form an intention to engage in the behaviour themselves (Kraft et al., 2005). In workplace settings, if colleagues or supervisors view ethical behaviour as essential, employees are likely to develop intentions aligned with these norms, which can discourage deviant behaviour (Nene, 2017). Subjective norms can be powerful motivators, especially in cultures or contexts where conformity and social approval are highly valued (Kim et al., 2017).

Perceived Behavioral Control (PBC) is an individual's perception of their capability to execute a specific behavior, taking into account internal factors (such as skills and knowledge) and external factors (including available resources, environmental support, and potential obstacles) (Ajzen, 2002). This sense of control influences both intentions and actual behaviours; the more control individuals perceive they have over an action, the more likely they are to intend to engage in it (Armitage & Conner, 2001). Research has demonstrated that perceived behavioural control is especially relevant in predicting behaviours where external constraints or resources play a role, as it helps individuals assess whether they have sufficient capacity and support to follow through such as workplace compliance or financial decision-making (Ajzen & Sheikh, 2013). When individuals feel that they lack control whether due to limited resources, ability, or structural constraints their likelihood of developing the intention to engage in the behaviour diminishes, even if they have favourable attitudes and supportive social norms (Yzer & Putte, 2014).

TPB posits that behavioural intention is the most direct predictor of behaviour, acting as the essential link between an individual's internal attitudes, subjective social pressures, and their perceived ability to carry out the behaviour (Ajzen, 2011). Empirical evidence supports the notion that stronger intentions lead to higher behaviour performance rates, provided perceived control is achievable. For instance, studies on health behaviours, such as exercise and diet, show a strong correlation between intention and behaviour, validating TPB's predictive power (Conner et al., 2021). Similarly, research in organizational settings demonstrates that strong intentions, influenced by ethical attitudes and social norms, predict compliance with organizational policies and discourage actions like asset misappropriation or fraud (Carpenter & Reimers, 2005).

In summary, TPB provides a comprehensive model for predicting behaviour by examining the interplay between an individual's attitude, the influence of social norms, and the perceived control over behaviour. When these components align positively, behavioural intention is strengthened, making it highly likely that the individual will engage in the desired behaviour (Ajzen, 2020). The model's versatility and empirical support across diverse fields including health, education, and organizational ethics confirm its robustness and applicability in explaining both ethical and unethical behaviours.



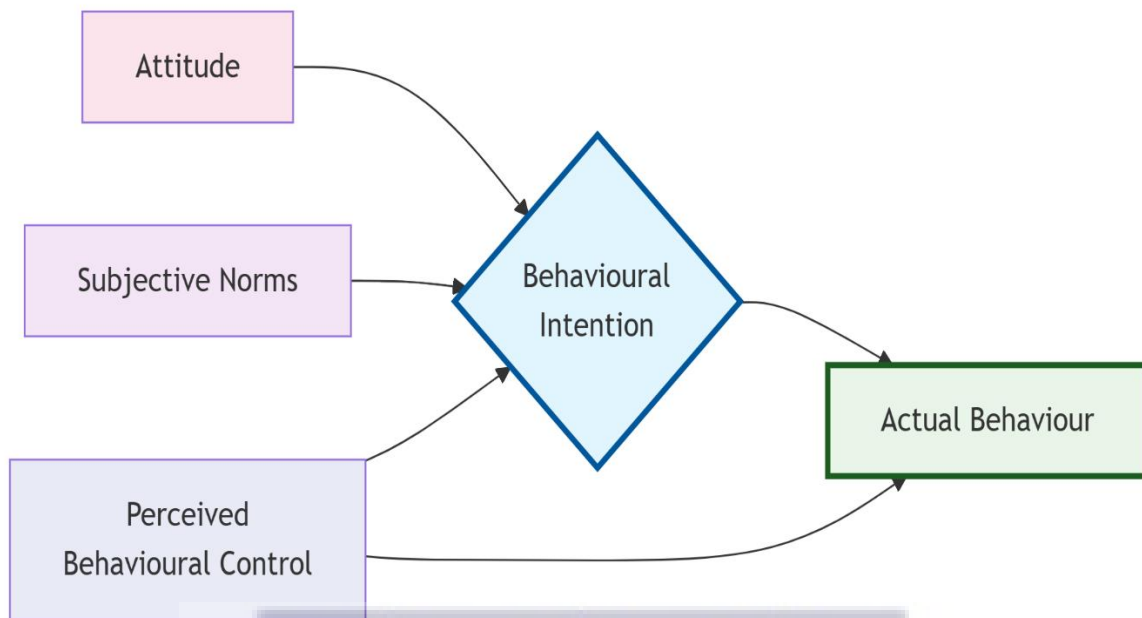


Figure 2.1: Theory of Planned Behaviour (Azjen, 1991)

2.6 Empirical Literature Review

Research on small business fraud has often relied on global surveys, such as those conducted by the ACFE. These surveys offer insights primarily through fraud examiners' self-reports, providing a high-level view of fraud types, but they often lack detailed input from victims or offenders, which limits our understanding of the internal dynamics that drive fraud within organizations. Albrecht et al. (2019) emphasize that financial or vice-related pressures contribute to approximately 95% of fraud cases, highlighting that fraud is frequently motivated by personal and psychological pressures common to both fraudsters and non-fraudsters.

Hess and Cottrell Jr. (2016) caution that even minor workplace transgressions can evolve into significant fraud, especially when employees feel they are not being monitored. In a similar vein,

Carland et al. (2001) argue that while trust is essential in small businesses, it is unwise to assume employees will always avoid temptation, as insider fraud by trusted personnel can occur when there is a lack of oversight (Jackson et al., 2010; Hight, 2015).

Small businesses, in particular, are vulnerable to occupational fraud due to limited resources to implement robust internal controls or segregate duties. Kramer (2015) estimates that small businesses lose about 5% of annual revenue due to asset misappropriation, with an average loss of \$154,000 per case in organizations with fewer than 100 employees (Glodstein, 2015). Studies indicate that small firms experience proportionally greater financial losses from occupational fraud compared to larger organizations (Whittaker, 2015). Small businesses, unlike large corporations, typically lack the budget to develop comprehensive internal control systems, which leaves them more susceptible to asset misappropriation and other forms of fraud.

Studies examining organizational structure and management control in small businesses provide additional insights into fraud risk factors. Ding et al. (2015), using data from the World Business Environment Survey (WBES) across 80 countries, found that small family-controlled businesses reported fewer fraud incidents than non-family-controlled enterprises. This difference is likely due to closer familial oversight and informal control structures that reduce opportunities for fraud. Their study also found minimal variation in fraud prevalence between developed and developing nations, indicating that asset misappropriation in small businesses is a universal issue. The researchers recommend family-controlled monitoring as a practical approach to reducing fraud in small enterprises.

In another study, Frazer (2012) investigated the adequacy of internal controls in 270 small American restaurants to prevent employee fraud. Frazer found that many restaurants lacked basic control elements such as asset protection, transaction verification, and task segmentation, making

them vulnerable to theft and misappropriation. Additionally, restaurant managers often lacked knowledge of internal control frameworks like COSO, limiting their ability to establish adequate safeguards. Frazer recommends that small business managers familiarize themselves with COSO to create more effective control systems tailored to their operational needs.

Similarly, Law and Kusant (2014) explored the types of control measures used by small restaurant owners in Pennsylvania for the prevention and detection of asset misappropriation. While many owners implemented detection measures such as cameras, cash register codes, cash counts, and inventory tracking there was little focus on preventative controls, such as background checks or ethics training. This reliance on detection over prevention means that many frauds are only identified after significant losses occur. The findings suggest that small restaurant owners often lack awareness of preventative measures that could protect their businesses from employee fraud. Moorthy et al. (2015) examined workplace theft among retail employees in Malaysian supermarkets, identifying a range of factors that influence theft behaviour, including opportunity, personal characteristics, compensation, organizational justice, and peer behaviour. However, organizational climate and employee need did not significantly influence theft, likely due to the lower status and younger age of respondents, who may not feel attuned to the organizational culture. The study highlights how younger, lower-level employees, with less job security and fewer responsibilities, may perceive theft differently from higher-level employees.

To complement theoretical models and quantitative surveys, qualitative research provides critical depth to the understanding of occupational fraud by capturing the lived experiences of key organizational actors. A seminal phenomenological study by Macailao, (2020) delves into this perspective by exploring the first-hand knowledge of internal auditors themselves. Through in-depth electronic interviews with a purposively selected global cohort of fifteen (15) internal

auditors, the researcher identified core themes that define their professional understanding of fraud. The findings were structured into a comprehensive framework comprising: (1) the perceived conceptualization of occupational fraud; (2) its behavioural and organizational indicators; and (3) the critical importance of this understanding for effective audit practice. This research underscores that internal auditors view a deep comprehension of fraud's concepts and warning signs as fundamental to providing value-adding services. Crucially, the study highlights that in an era of increasingly sophisticated fraud schemes, this knowledge is indispensable for guiding the profession's efforts in fraud prevention, detection, and mitigation, thereby directly supporting management and safeguarding organizational integrity.

More recent studies have applied behavioural theories to understand the motivations behind employee fraud. Lin et al. (2022) used the TPB to explore why employees might commit fraud against their employers, finding that PBC was the most significant predictor of fraud intention, followed by attitude and subjective norms. These findings suggest that resource-constrained organizations should prioritize fraud prevention efforts by focusing on factors that enhance employees' perception of control, such as clearer rules and consistent monitoring.

A well-established stream in the fraud literature highlights the distinct vulnerabilities of small businesses compared to their larger counterparts. While large corporations can deploy extensive managerial layers, robust internal controls, and systematic oversight, small businesses often operate under severe resource constraints that limit their ability to invest in such protective measures (Zainal et al., 2022). This structural disadvantage makes them a frequent target for asset misappropriation by motivated employees.

Treadwell, (2021) sought to reduce small business fraud by empirically investigating the specific mechanisms of these crimes. The research had a threefold objective: to identify the types of assets

most frequently targeted by employees, to uncover the methods used to misappropriate them, and to trace how the stolen assets were converted and spent. The emerging findings provide a granular understanding of the fraud lifecycle within the small business context, enabling the proposal of targeted, low-cost prevention strategies. These practical recommendations include purchasing employee theft insurance, formalizing a code of conduct, implementing rigorous hiring practices, and training managers to detect anomalies in documentation. Furthermore, the study emphasizes the importance of establishing fraud reporting systems, conducting vigilant exit interviews, and fostering a managerial culture adept at recognizing the behavioral and transactional red flags of ongoing fraud.

In the United States, Korgaonkar et al. (2021) applied Routine Activity Theory (RAT) and Theory of Reasoned Action (TRA) to study retail employee theft. The authors developed a framework that included constructs from both theories such as suitable targets, lack of capable guardians, and attitudes towards theft and examined the influence of organizational commitment and moral norms. The findings were mixed: attitudes towards theft were a significant predictor of intentions to steal, while subjective norms were not, partially supporting TRA. Meanwhile, the presence of suitable targets and the absence of guardians significantly correlated with theft attitudes, though only suitable targets impacted theft intentions.

Within the specific context of Small and Medium Enterprises (SMEs), which are often characterized by less formalized controls, empirical research has sought to identify the most salient fraud drivers. A notable study by (Talib et al, (2024) investigated the determinants of asset misappropriation within Malaysian SMEs, leveraging the comprehensive Fraud Hexagon theory as its analytical framework. Through a quantitative analysis of 306 survey responses, the research provided empirical validation that not all elements of the theoretical model carry equal weight.

The findings specifically demonstrated that opportunity, rationalization, and collusion have a statistically significant relationship with asset misappropriation, with collusion emerging as the strongest unique predictor. This underscores the critical risk posed by internal conspiracies in smaller organizational settings where oversight may be limited. Consequently, the study concludes that mitigating fraud in SMEs requires targeted strategies that extend beyond addressing individual pressure to include stringent anti-collusion measures and robust controls that limit opportunity. The research also highlights a critical managerial implication, suggesting that revisiting compensation policies, such as the minimum monthly salary, could be a necessary step to alleviate financial pressures that may lead to rationalization.

Wibasuri & Fadilah (2024) did a study in Indonesia to ascertain the mediating role of attitude in environmentally friendly purchase intentions. The purpose of their study was to explore and model the factors influencing the purchase intention of environmentally friendly products in Indonesia's SME food sector. Building on the foundational theories of TRA and TPB, the study proposes an integrated model to test the relationships between customer knowledge, environmental attitudes, and purchase intention. The research employs a qualitative-exploratory and quantitative methodology to not only describe these relationships but also to develop an applicative model. Its key originality is the investigation of consumer attitude as a critical mediating variable between customer knowledge and purchase intention within the TRA/TPB framework. Based on the study's tested hypotheses, the main findings confirm three key relationships. The results indicate that customer knowledge exerts a positive and significant effect on both purchase intention and on attitudes toward environmentally friendly products. Furthermore, the study confirms that consumer attitudes toward the environment have a positive and significant effect on the intention to purchase these products. Collectively, these findings suggest that attitude plays a central role,

potentially acting as a mediator through which customer knowledge influences the final purchase decision.

Research on fraud vulnerability in small businesses highlights specific issues related to asset misappropriation. Omar et al. (2016) found that younger employees, particularly those in sales and operations, are more likely to engage in asset theft due to factors like financial pressure and lifestyle choices. Neguriță and Ionescu (2016) identify that vulnerabilities such as inadequate internal controls, lack of employee vacations, and poor asset security increase small businesses' exposure to fraud. Hass et al. (2016) further suggest that these weaknesses contribute to rising financial losses among small businesses, emphasizing the need for comprehensive fraud prevention strategies.

Studies have also linked employee satisfaction to theft. Kulas et al. (2007) explored the link between job satisfaction and theft, finding that dissatisfied employees are more prone to engage in theft and perceive the organizational climate as permissive toward such behaviour. These perceptions create a “theft-friendly” environment, leading to more self-reported cases of theft among employees with lower job satisfaction.

Zainal et al., (2022), conducted a systematic review of fraud research with a specific focus on Small and Medium Enterprises (SMEs). Despite the critical importance of SMEs to the economy, the authors find that scholarly work on fraud within this sector remains limited. Their analysis, organized around the definition, elements, theories, factors, and prevention mechanisms of fraud, identifies low employee morale and weak internal controls as the most prevalent factors contributing to fraud in SMEs. To advance the field, the paper concludes by proposing several directions for future research, including investigating the relationship between corruption,

financing sources, and SME innovation in emerging economies, and more accurately quantifying the cost of fraud through the criminal justice system.

In Indonesia, Toyyib et al., (2020) examined asset misuse in small restaurants, revealing common issues such as cash theft and inventory misappropriation, facilitated by irregular ordering processes and a lack of record-keeping. Utami et al. (2021) applied the Fraud Diamond Theory to investigate asset misappropriation, finding that financial pressure, opportunity, and capability were significant predictors, while non-financial pressures and integrity were not.

From an African perspective, Yekini et al. (2018) explored workplace theft in Nigeria's SME sector, identifying significant relationships between personal factors such as financial need and external pressures and employee theft. Their findings reveal that many SMEs lack sufficient preventative measures, which contributes to heightened fraud risk.

Koomson et al. (2020) in Ghana used the S.C.O.R.E. model to explore factors driving asset misappropriation, including pressure, rationalization, and ego. Their study highlights that robust internal control systems can significantly reduce the likelihood of employee theft by moderating the impact of these personal and psychological factors.

Finally, Nene (2017) conducted a study in South Africa on employee theft in small businesses, finding positive correlations between attitudes and subjective norms regarding theft, as well as a negative correlation between moral norms and theft intentions. The study indicates that personal moral beliefs play a role in preventing theft, while perceived control over resources influences the likelihood of theft. Together, these studies reveal that employee fraud in SMEs is driven by a complex mix of personal pressures, social influences, organizational factors, and broader

economic conditions, underscoring the need for tailored approaches to fraud prevention in small business environments.

2.7 Conceptual Framework

This section elaborates on how the relationships examined in this study are conceptualized drawing from the TPB and existing studies that have similar objectives. This framework incorporates four independent variables, attitude, subjective norms, PBC, and moral norms, to predict employees' intentions to engage in asset misappropriation. Figure 2.2 visually represents the application of the TPB within the context of employee asset misappropriation.

In line with prior studies (Tonglet, 2002; Bailey, 2006; Kelkar & Emilus, 2016; Korgaonkar et al., 2021), which have successfully employed TPB to analyse other forms of employee misconduct, this model posits that an employee's intention to misappropriate assets serves as a predictor of the actual behaviour of asset misappropriation. According to TPB, the likelihood of engaging in a specific behaviour is driven by a combination of individual attitudes, perceived social pressures, perceived control over the behaviour, and additional moral and organizational factors. As shown in Figure 2.2, it is hypothesized that Subjective Norms and Perceived Behavioral Control have a direct influence on Asset Misappropriation Intention. Furthermore, Moral Norms is predicted to have both a direct effect on Asset Misappropriation Intention and an indirect effect, mediated through Attitude. Specifically, Moral Norms are expected to influence an individual's Attitude, which in turn influences their Asset Misappropriation Intention. This approach is designed to provide a more detailed understanding of the predictors of asset misappropriation, extending TPB within the specific context of employee fraud in organizations.

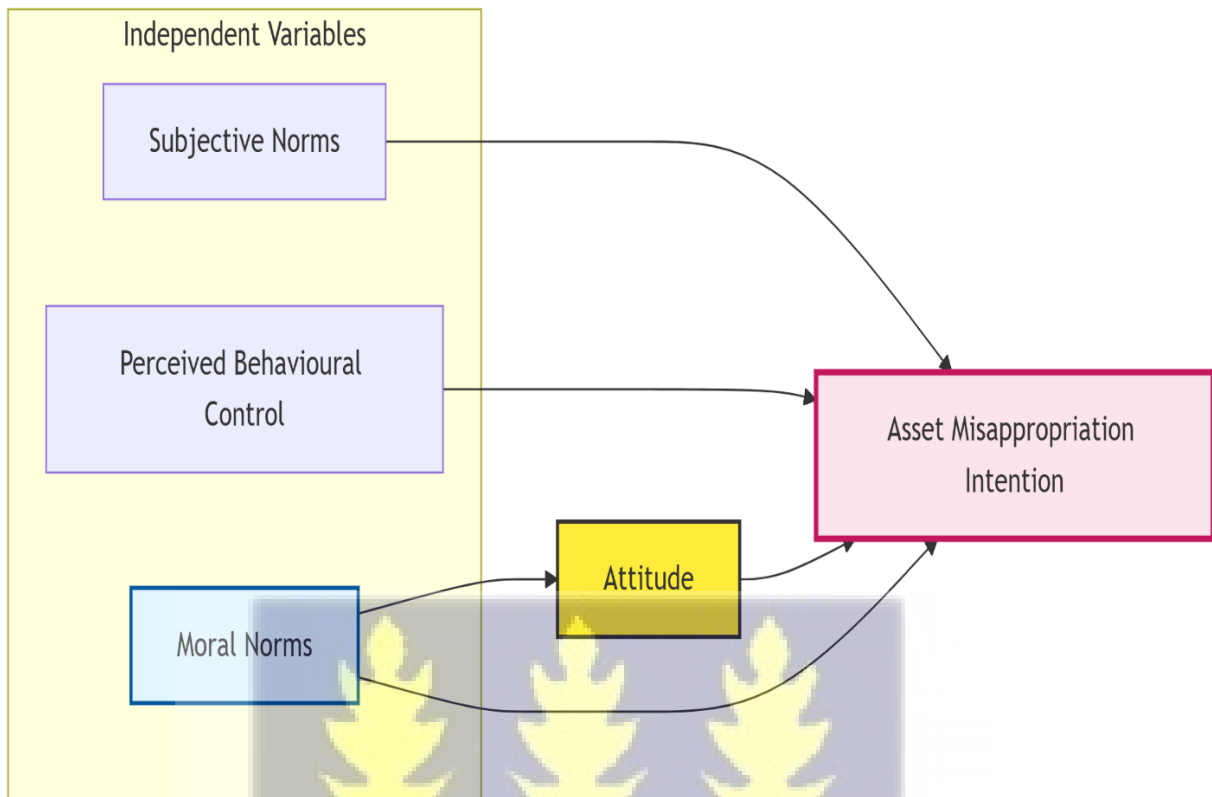


Figure 2.2: Conceptual Framework of the Study

Source: Botetzagias et al. (2015)

2.8 Hypotheses Development

This section outlines the hypotheses developed to address the research questions in accordance with the conceptual framework. The hypotheses aim to analyze the relationships between the independent variables attitude, subjective norms, PBC, and moral norms and the dependent variable, which is the asset misappropriation intention. Furthermore, these hypotheses assess the

degree to which the data supports the measurement model, grounded in established theories and previous research. Based on the literature, the study tests the following primary hypotheses:

Attitude and Asset Misappropriation Intention

The Theory of Planned Behavior (TPB) posits that an individual's attitude towards a behaviour strongly impacts their intention to engage in it. Within TPB, attitude is defined as the extent to which a person views a behaviour positively or negatively (Ajzen, 1991). Typically, the more favourably someone perceives a particular action, the greater their likelihood of forming an intention to pursue it. Behavioural intentions, influenced by factors like perceived outcomes, social context, and attitudes, serve as strong predictors of actual behaviour, indicating the extent to which an individual is motivated to perform a specific action (Ajzen, 2002).

In the context of employee asset misappropriation, TPB suggests that an employee's attitudes toward this behaviour will influence their intentions to misappropriate assets at work. Studies examining the role of attitudes within the TPB framework often classify them as either positive or negative toward a specific behaviour. Positive attitudes are those that support or favor the behaviour, while negative attitudes discourage it (Kelkar & Emilus, 2016). Employees who hold a positive attitude towards asset misappropriation may perceive it as beneficial or rewarding and therefore are more likely to engage in it (Gstaettner, Rodger, & Lee, 2017). For instance, an employee who believes that misappropriating assets will provide financial gain or other personal benefits may develop stronger intentions to act on this belief. Previous research has consistently demonstrated a positive relationship between attitude toward a behaviour and intention to engage in it, especially in studies focusing on volitional or discretionary behaviours. Studies by Beck and Ajzen (1991), Tonglet (2002), Lin and Chen (2011), Petrescu et al. (2018), Cronan and Al-Rafee (2007), Kelkar and Emilus (2016), Nene (2017), and Korgaonkar et al. (2021) have all shown that

individuals who view a behavior more favourably are more likely to intend to engage in it. These findings support the TPB's assertion that attitudes are significant predictors of behavioural intentions, including unethical behaviours such as theft, fraud, and misappropriation.

Therefore, based on these theoretical insights and empirical evidence from prior studies on the relationship between attitudes and behaviour, it is hypothesized that employees who view asset misappropriation more positively will have greater intentions to engage in it. This hypothesis underscores the potential role of employee attitudes in driving dishonest behaviours and highlights the importance of addressing these attitudes to mitigate risks of asset misappropriation within organizations. It is hypothesized in this study that:

H1: There is a positive and significant relationship between an employee's attitude toward asset misappropriation and intention to engage in asset misappropriation.

Subjective Norms and Asset Misappropriation Intention

Subjective norms represent the second component in the TPB model, focusing on the social and cultural factors that shape an individual's behaviour. This variable represents the perceived social pressure exerted by an individual's social network, including family, friends, colleagues, and social groups, influencing their decision to engage in or avoid a particular behaviour (Leonard & Manly, 2011). In TPB, subjective norms function as injunctive norms because they are grounded in social expectations from one's reference groups, which often carry implications of rewards or punishments depending on the individual's compliance (Dilmeri et al., 2017; Smith et al., 2008). Subjective norms have been shown to influence an individual's behavioural intentions, especially when ethical considerations are involved, as people's attitudes towards specific behaviours are

often shaped by the beliefs and expectations of those around them. For instance, Cheung and To (2016) and Gstaettner et al. (2017) indicate that individuals are more likely to conform to social pressures from family and friends, which can lead to behaviours aligned with these external expectations. Studies on deviant behaviours, such as shoplifting, demonstrate that the influence of socialization and peer groups can have a significant impact on an individual's decision to engage in dishonest behaviour (Cox et al., 1990; Beck & Ajzen, 1991; Forney & Crutsinger, 2001; Tonglet, 2002; Goh & Kong, 2018).

In the specific context of asset misappropriation, an individual's intention to engage in misappropriating assets is influenced by the perceived stance of their close social circle friends, family, and coworkers toward such behaviour. If the individual perceives that those within their immediate circle view theft and asset misuse negatively, they are likely to refrain from engaging in it. Conversely, if an individual perceives tolerance or indifference toward misappropriation from these social influences, or if they frequently observe coworkers engaging in asset misappropriation without consequence, they are more likely to consider and act on similar intentions. This scenario indicates a perceived social approval of the behaviour within their social network, reinforcing their inclination to engage in misappropriation. Thus, the degree of perceived social acceptance or rejection of asset misappropriation is likely to directly influence an individual's intention to engage in such behaviour. Higher perceived acceptance within the social network increases the likelihood of misappropriation intentions, while social rejection decreases it. Based on these theoretical and empirical insights, this study hypothesizes that:

H2: There is a positive and significant relationship between an employee's subjective norms and intention to engage in asset misappropriation.

Perceived Behavioural Control (PBC) and Asset Misappropriation Intention

PBC refers to "an individual's perceived ease or difficulty in performing a specific behaviour" (Ajzen, 1985). Within the TPB, PBC is essential in influencing intentions, as individuals are more inclined to pursue a behaviour when they believe it is easily attainable (Yazdanpanah & Forouzani, 2015). PBC evaluates an individual's belief in their capability to execute a particular behaviour, taking into account essential factors like skills, knowledge, and accessible resources.

PBC is shaped by control beliefs, which are an individual's perceptions of factors that either support or hinder a behaviour and the power of these factors to either encourage or restrict the individual from engaging in the behaviour (Ajzen, 1991). In an organizational context, PBC is often measured by examining the skills and knowledge employees possess in relation to specific behaviours, as well as the barriers management sets in place to deter these behaviors (Emilus & Kelkar, 2016). For instance, an employee might have the knowledge and technical skills to misappropriate assets but may be dissuaded by strict internal controls, such as surveillance systems and monitoring protocols, which create barriers to misconduct. Research on workplace deviance has highlighted Perceived Behavioural Control (PBC), or perceived opportunity, as a key factor contributing to unethical actions, such as asset misappropriation (Greenberg, 1997). Employees are more likely to engage in asset misappropriation when they perceive a lack of rigorous preventive measures. Conversely, organizations that implement strong controls, oversight mechanisms, and surveillance are likely to reduce opportunities for deviant behaviour, thereby decreasing instances of unethical conduct.

Studies indicate that when organizations eliminate perceived opportunities for misconduct or implement effective deterrents, unethical behaviours are significantly reduced. In summary, employees who believe they have both the opportunity and capability to engage in asset

misappropriation are more likely to develop intentions to commit such actions. Based on this theoretical foundation, the following hypothesis is proposed:

H3: There is a positive and significant relationship between an employee's perceived behavioral control and intention to engage in asset misappropriation.

Moral Norms and Attitude towards Asset Misappropriation

Moral norms refer to an individual's internalized beliefs about the moral correctness or incorrectness of engaging in specific behaviour (Ajzen, 1991). These norms guide personal ethical decision-making by establishing criteria for judging right and wrong (Nielsen & McGregor, 2013). Research consistently highlights that moral norms play a significant role in shaping attitudes, particularly toward behaviours that carry ethical or moral implications (Steg & Vlek, 2009; Yazdanpanah & Forouzani, 2015). Moral norms influence attitudes by shaping the way individuals perceive and evaluate behaviours. When moral norms are strong, individuals are more likely to view unethical actions, such as theft or dishonesty, negatively, leading to unfavorable attitudes toward such behaviours. For instance, Tonglet (2002) found that personal morality significantly impacted attitudes toward shoplifting, with individuals who adhered to strong moral norms demonstrating more negative attitudes toward theft. Similarly, Korgaonkar et al. (2021) observed that moral norms negatively influenced attitudes toward retail employee theft, emphasizing the importance of ethical convictions in shaping workplace behaviour.

The TPB further reinforces the relationship between moral norms and attitudes. According to Ajzen (1991), attitudes are formed through the evaluation of a behaviour's consequences, which is influenced by personal moral considerations. In contexts where moral norms are well-defined,

individuals are more likely to judge unethical behaviours as unacceptable, fostering negative attitudes toward engaging in them. Conversely, when moral norms are weak or absent, attitudes toward such behaviours may become more permissive, as individuals feel less internalized responsibility to adhere to ethical standards (Leonard & Cronan, 2005). Based on the theoretical framework and supporting empirical evidence, this study proposes the following hypothesis:

H4: There is a negative and significant relationship between an employee's moral norms and his attitude towards asset misappropriation

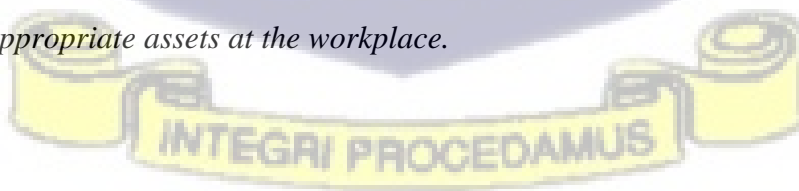
Moral Norms and Asset Misappropriation Intention

Moral norms includes a person's personal sense of responsibility either to engage in or abstain from a behaviour based on their beliefs about what is morally acceptable. Moral norms, also known as perceived moral obligation or personal norms, have been shown to significantly contribute to the explanation of intentions beyond the primary variables of the Theory of Planned Behaviour (TPB), especially in contexts involving ethical decision-making and deviant behaviours (Tonglet, 2002; Beck & Ajzen, 1991; Randall & Gibson, 1991; Korgaonkar et al., 2021). Individuals with strong moral norms are more likely to refrain from behaviours such as theft and asset misappropriation because their convictions align with upholding morally right behaviours and avoiding those deemed wrong. Studies have consistently shown that moral norms significantly impact intentions toward deviant behaviours, including theft and dishonest practices. For example, Tonglet (2002) found that moral norms strongly correlated with shoplifting attitudes, while Korgaonkar et al. (2021) and Nene (2017) demonstrated a significant negative effect of moral norms on attitudes and intentions toward employee theft.

Furthermore, moral codes have been linked to intentions and actual behaviours across different contexts (McMillan & Conner, 2003; Sparks & Shepherd, 2002). In organizational settings, individuals with higher moral standards are generally less likely to engage in deviant behaviours, such as asset misappropriation, as they hold personal convictions that deter unethical actions. For instance, Morgan et al. (2018) explored counterproductive work behaviours in a regulatory context, revealing that employees disciplined for asset misappropriation often exhibited counterproductive behaviours in prior instances, suggesting a link between moral standards and workplace conduct. Similarly, Jaakson et al. (2018) found that perceived dishonest behaviours among retail employees led to further deviant actions, especially in environments lacking a strong ethical culture. Both studies support the idea that the absence of a robust ethical company culture often fosters deviant employee behaviours, implying that individuals' moral standards may be influenced by organizational values and practices.

In sum, moral norms are expected to have a considerable impact on an employee's attitudes and intentions concerning asset misappropriation. Employees with high moral standards are less likely to justify or engage in such actions, while those who perceive weaker moral obligations may have stronger intentions to misappropriate assets. Based on the theoretical framework and supporting empirical evidence, this study proposes the following hypothesis:

H5 There is a negative and significant relationship between an employee's moral norms and his intention to misappropriate assets at the workplace.



Attitude as a mediator between Moral Norms and Asset Misappropriation Intention

Attitude, as conceptualized by the TPB, refers to an individual's overall evaluation of favourable or unfavourable toward engaging in a specific behaviour (Ajzen, 1991). In the context of asset misappropriation, attitude represents an employee's predisposition to view the act as acceptable or unacceptable. Moral norms, which reflect an individual's internalized sense of right and wrong, significantly influence attitudes toward ethically charged behaviours. This suggests that attitude may mediate the relationship between moral norms and the intention to misappropriate assets, functioning as the cognitive mechanism through which moral norms affect behavioural intentions. Moral norms serve as an individual's ethical compass, shaping their perspective on what constitutes acceptable behaviour (Steg & Vlek, 2009). When moral norms are strong, individuals are more likely to view unethical behaviours such as asset misappropriation as inherently wrong, leading to unfavourable attitudes toward engaging in such acts (Yazdanpanah & Forouzani, 2015). Conversely, weaker moral norms result in more permissive attitudes, as individuals feel less ethical obligation to adhere to societal or organizational standards (Leonard & Cronan, 2005). Thus, moral norms provide the foundation for developing attitudes toward specific behaviours.

According to TPB, attitudes play a direct and significant role in predicting behavioural intentions (Ajzen, 1991). In the workplace, if an individual develops a positive attitude toward asset misappropriation, they are more likely to form intentions to engage in such behaviour. Studies have consistently found that attitudes mediate the effect of normative constructs, such as moral norms, on behavioural intentions (Cronan & Al-Rafee, 2007). For instance, in a study on workplace theft, Korgaonkar et al. (2021) demonstrated that attitudes toward theft significantly mediated the relationship between moral norms and intentions, underscoring the critical role of cognitive evaluations in the decision-making process.

When applied to asset misappropriation, attitude serves as a cognitive bridge linking moral norms to intentions. Strong moral norms influence attitudes by fostering a negative evaluation of misappropriation, which subsequently reduces the likelihood of forming intentions to engage in the behaviour. Conversely, weak moral norms allow individuals to rationalize unethical actions, fostering positive attitudes that increase the intention to misappropriate assets. This mediating role aligns with the TPB framework, which posits that normative influences impact behaviour indirectly through attitudes (Ajzen, 1991).

In a broader context, Botetzagias et al. (2015) found that attitude mediated the relationship between moral norms and intentions in pro-environmental behaviour, suggesting their applicability across diverse ethical decision-making scenarios. Similarly, Liu et al. (2020) demonstrated that attitudes mediated the relationship between moral norms and purchase intentions in the context of green consumer behaviour, emphasizing their relevance in influencing ethical choices. Although limited research has explored the mediating role of attitude in asset misappropriation, studies in related areas provide valuable insights. For instance, Tonglet (2002) highlighted that moral norms significantly reduced shoplifting intentions, even when attitudes toward the behaviour were favourable. This suggests that in the workplace, moral norms could similarly buffer against unethical intentions, such as asset misappropriation, by fostering a sense of ethical responsibility among employees. Based on the theoretical framework and supporting empirical evidence, this study proposes the following hypothesis:

H6: *Attitude mediates the relationship between moral norms and asset misappropriation intention*

CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

This chapter outlines the research techniques and processes employed in the study. It begins by discussing the chosen research design and how it aligns with the overarching research paradigm. Following this, the chapter details the demographic profile of the study's participants and the sampling methods used. Data collection procedures are thoroughly examined, providing insight into how the data were gathered and managed. The chapter also delves into the techniques used for analyzing the data, alongside the strategies employed for presenting the findings. Finally, the sources of information that informed the research are highlighted, giving context to the study's foundation.

3.1 Research Paradigm

A research paradigm, as defined by Lincoln et al. (2011), refers to the philosophical principles or core concepts that guide and frame the researcher's perspective. According to Abbot (2004), paradigms offer a framework for research methods and processes and practical tools for addressing specific research problems. In social science research, multiple paradigms exist, such as positivism, interpretivism, realism, relativism, and critical realism (Orlikowski & Baroudi, 1991). However, positivism and interpretivism are the two most prominent paradigms, representing the primary theoretical perspectives in the field (Mark, Philip, & Adrian, 2009).

Positivism, one of the foundational approaches in social science research, is commonly linked to quantitative methods and focuses on precision, generalizability, reliability, and replicability (Kaushik & Walsh, 2019). In contrast, interpretivism relies on the researcher's subjective interpretations. It is often linked with qualitative methods, informal rhetoric, and participant-centered approaches (Kaushik & Walsh, 2019). Positivists paved the way for integrating social sciences into the broader scientific field, viewing social science research as akin to research in the physical sciences (Khaldi, 2017). They believe that causal relationships can be tested using statistical methods, and that social reality consists of measurable, objective facts. Researchers following the positivist approach use deductive reasoning to formulate hypotheses and test them empirically (Boateng, 2016). In contrast, interpretivists argue that multiple realities exist, shaped by individual experiences and perceptions.

Both quantitative and qualitative research methods offer different ways to address research problems (Glogowska, 2011). Quantitative methods are essential for studies requiring measurement, counting, and comparison, while qualitative methods are better suited for explaining specific phenomena. The selection of a research method be it quantitative, qualitative, or mixed depends on the study's nature and objectives (Tashakkori & Teddlie, 2010). The positivist approach in social science research offers significant advantages, including objectivity, scientific rigor, and generalizability. It focuses on empirical data and quantifiable measures, allowing researchers to identify causal relationships and make reliable predictions. Positivism ensures that findings are replicable, supporting the accumulation of knowledge across studies. Its standardized methods allow for cross-disciplinary applications and produce actionable insights that can inform policy and practice. Overall, positivism provides a structured, evidence-based framework that is essential for addressing complex social issues.

This study adopts the positivist approach, given the study's objectives, which aim to examine relationships among variables using inferential statistics and to draw generalizations based on the findings.

3.2 Research Design

Research design is a structured plan detailing how data will be collected, cleaned, and processed to draw meaningful conclusions (Zikmund et al, 2010). Mathoko et al. (2007) describe research design as a strategic blueprint that involves a sequence of decisions, outlining the methods and procedures for effectively gathering and analyzing the required data for a study. The research design adopted for a given study depends on the nature of research to be conducted be it quantitative, qualitative, or mixed. Qualitative research focuses on interpreting subjective meanings and describing social contexts, aiming to understand situations from a distinctive perspective. Data collection methods in qualitative research commonly include unstructured and semi-structured interviews. Researchers may also gather data through observation, focus group discussions, individual interviews, and participant observation. According to Creswell (2013), qualitative research could be in the form of narrative, phenomenology, ethnography, grounded theory and case study. Cohen, (1980) submits that quantitative research is a form of social research that relies on empirical methods and statements. Creswell (1994) defines it as research that explains phenomena by collecting numerical data, which is then analysed through mathematical methods. Quantitative research includes four primary types: survey, correlational, experimental, and causal-comparative research. The primary aim of quantitative research is to test hypotheses to confirm or refute a phenomenon. Quantitative research instruments are typically rigid in response analysis, and data collection methods are highly structured. This approach assigns values to

variables and examines relationships between them, often using experiments or surveys (Creswell, 2009). Mixed-method research integrates qualitative and quantitative approaches to effectively accomplish the study's objectives.

This study adopts a quantitative research approach, aligning with its objectives and underlying philosophical assumptions. It employs the survey research method, which enables a numerical representation of a population's attitudes, opinions, or trends by analyzing a representative sample. a numerical description of a population's attitudes, opinions, or trends by studying a representative sample. As noted by McNeill and Chapman (2005), this method is effective for gathering substantial amounts of data in statistical form from a large group of people within a relatively short period, typically through closed-ended questions.

In the view of Saunders, Lewis and Thornhill (2003), Survey research provides an accurate profile of people, events, or situations by systematically collecting data that reflects the characteristics, attitudes, or behaviors of a larger population. Furthermore, the study adopts a cross-sectional survey method. This enables a researcher to gather data from the target population at a single point in time.

A survey instrument with closed-ended questions was designed using existing scales from previously validated studies to gather primary data for the study. These existing scales ensured the reliability and validity of the constructs being measured. The survey utilized a random sampling technique, guaranteeing that each individual in the target population had an equal probability of being selected. This survey research approach was selected for its efficiency in gathering data. A survey research approach was chosen for its efficiency in gathering large volumes of data from a substantial population within a short timeframe, making it an ideal approach for studies involving large samples. The survey primarily focused on gathering quantitative data, which was crucial for

analysing patterns and drawing generalizable conclusions. The target population for this study included employees of SMEs in the Greater Accra region of Ghana. SMEs were chosen as the focus due to their substantial role in the local economy and the relevance of understanding employee behaviour and performance in this context. The researcher identified and invited 600 SME employees from all the 29 metropolitan, municipal and district assemblies within the Greater Accra region to participate in the study. This method minimized biases, ensuring a representative sample of Greater Accra's broader SME employee population. Out of the 600 questionnaires distributed, 470 were completed and returned, yielding a response rate of approximately 78%. This high response rate strengthened the study's findings by reducing non-response bias, providing a more accurate representation of the target population. The data gathered were then analysed using descriptive statistics and partial least squares (PLS) structural equation modeling (SEM) techniques.

3.3 Unit of analysis

The unit of analysis in a study shapes how constructs are measured and analysed, making its clear definition essential. According to Sekaran (2003), the unit of analysis represents the level at which data is aggregated and interpreted in research. Kumar (2018) adds that this unit may include individuals, groups, organizations, countries, technologies, or objects under investigation. Choosing the unit of analysis has major implications for construct measurement and analysis, underscoring the need for clarity.

This study investigates the factors influencing individual employees' intentions to misappropriate assets at work. It gathers insights into the views and motivations of individuals employed in small

and medium-sized enterprises (SMEs) regarding asset misappropriation. Since the focus is on individual employees, the unit of analysis for this study is at the individual level.

3.4 Target Population and Sample Size

In research, a population refers to the entire group from which a researcher seeks to draw conclusions. Shukla (2020) defines the population of a study as the complete set of units to which the study's findings are intended to apply. For this study, the population includes all employees working in SMEs within the Greater Accra region. The study settled on employees because they are at the frontline of daily operations; handling cash, managing inventory, processing payments, and recording transactions. This direct, hands-on involvement with assets provides them with both the opportunity and the intimate knowledge of system weaknesses necessary to misappropriate assets. Also, they are uniquely positioned to identify and exploit control gaps that might be invisible to owners or external auditors. Therefore, their perspective is essential for understanding the practical loopholes and procedural failures that enable asset misappropriation.

The Greater Accra region has 29 local government areas. This include the Accra Metropolitan Assembly, Tema Metropolitan Assembly, and 27 other municipal and district assemblies. Greater Accra region was chosen as the study location because, as the host of the capital city, it serves as the hub for most economic activities and is resident to the majority of SMEs in the country. Data was collected from employees of SMEs operating across various industries, including education, wholesale and retail, manufacturing, information technology, health, agriculture, professional services, restaurants, hospitality, and transportation.

Prior studies on asset misappropriation have generally focused on entities operating in industries such as retail, restaurants, manufacturing, and hospitality. This study is one of the few that encompasses entities from a diverse range of industries to provide a more holistic view of the problem of employee theft and asset misuse among SMEs in Ghana.

This study drew from the formula proposed by Cochran (1977) for the estimation of the sample size of a relatively large and unknown study population. The basic formula for a large and unknown population is:

$$n_o = (Z^2 * p * q) / e^2$$

Where: n_o is the required sample size,

Z is the Z-score from the standard normal distribution for a selected confidence level (1.96 for 95%),

p is the estimated proportion of the attribute in the population,

q is $(1 - p)$, and e is the desired margin of error.

A 95% confidence level ($Z = 1.96$) and a 5% margin of error ($e = 0.05$) were applied. To ensure a conservative estimate and maximize sample size, the proportion (p) was set at 0.5. This calculation yielded a minimum sample size of 385. To enhance the statistical power and robustness of the study, a larger sample of 600 employees from SMEs in Greater Accra was utilised. This final sample size exceeds the minimum threshold, thereby strengthening the generalizability of the findings. Therefore, the sample size for this study is 600 individuals working in SMEs within the Greater Accra region.

3.5 Sampling Technique

A sample is a subset of a population chosen to represent the larger group, allowing researchers to make generalizations about the entire population. Sampling enables these conclusions and is divided into two main types: probability sampling and non-probability sampling. In probability sampling, each individual has an equal chance of being included in the study (Taherdoost, 2016). The five primary methods of probability sampling are systematic sampling, simple random sampling, cluster sampling, stratified sampling, and multi-stage sampling. In contrast, non-probability sampling relies on the researcher's discretion to select participants, meaning equal representation across demographic groups is not guaranteed (Taherdoost, 2016). Non-probability sampling could be classified into quota, snowball, convenience and purposive sampling. The study's research design has a big impact on the sampling strategy chosen. While qualitative research designs frequently use non-probability sampling methods, quantitative research designs typically use probability sample methods. A carefully chosen sample is essential to allow for generalization of the characteristics of the entire population. This study employed the simple random sampling method, ensuring that every individual in the target population had an equal chance of participating.

3.6 Data Sources

The analysis for this study was based solely on primary data, collected specifically to meet the research objectives. Primary data refers to information obtained directly from the source, tailored to the study's specific needs. For this study, data were gathered through a questionnaire, a widely used tool in social science research. Babbie (2004) describes a questionnaire as a structured

document containing a set of questions intended to collect data from respondents for analysis. Questionnaires offer several advantages, particularly in their ability to efficiently collect large volumes of data in a relatively short amount of time. They are especially useful when dealing with large sample sizes, as they enable researchers to gather responses from a wide range of participants across different locations with minimal logistical challenges. Additionally, because questionnaires are structured, they ensure consistency in the way data is collected, which helps maintain the reliability of the results.

3.6.1 Designing the Questionnaire

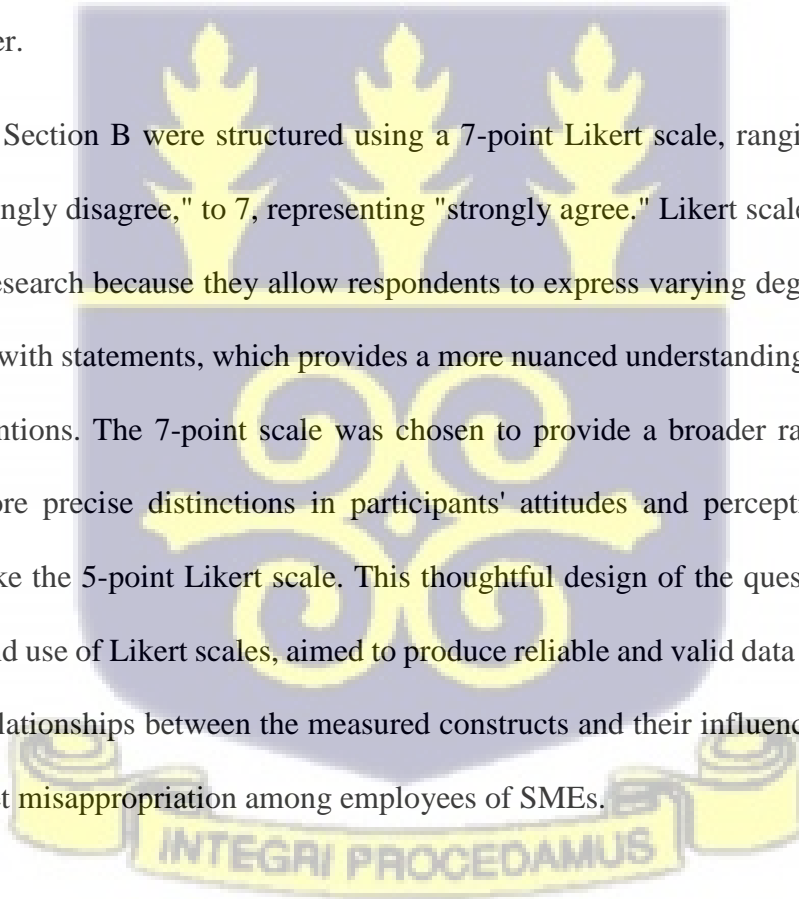
The survey instrument for this study was thoughtfully designed and structured to ensure participants could easily provide accurate and meaningful responses. The instrument was divided into two main sections to systematically gather the necessary information for analysis.

Section A focused on gathering demographic data about the respondents. The questions in this section aimed to capture key characteristics of the participants, including their gender, age, academic qualifications, professional certifications, work experience, and the type of industry in which they are employed. This demographic information was essential to contextualize the findings and understand any correlations between these characteristics and the constructs being measured. By collecting this data, the researcher could examine potential patterns, such as whether particular demographics were more likely to influence attitudes or intentions toward asset misappropriation.

Section B contained questions designed to measure the five primary constructs of the study: attitude towards asset misappropriation, subjective norms, PBC, moral norms, and the intention to

engage in asset misappropriation. These constructs are rooted in behavioral theories such as the TPB, which suggests that these factors can predict individuals' intentions and behaviours. Each construct had a specific set of questions. Attitude toward asset misappropriation, subjective norms, and PBC were each measured with four questions, while moral norms and intention to engage in asset misappropriation were each measured using three questions. To enhance clarity and reduce ambiguity, a brief preamble was provided before each set of questions. These introductions gave respondents context on what information was being requested and ensured that they understood the specific aspect of behaviour being addressed in each construct. This practice is particularly helpful in reducing response bias and ensuring that participants interpret the questions in a consistent manner.

All questions in Section B were structured using a 7-point Likert scale, ranging from 1, which represented "strongly disagree," to 7, representing "strongly agree." Likert scales are widely used in behavioural research because they allow respondents to express varying degrees of agreement or disagreement with statements, which provides a more nuanced understanding of their attitudes, beliefs, and intentions. The 7-point scale was chosen to provide a broader range of responses, allowing for more precise distinctions in participants' attitudes and perceptions compared to smaller scales like the 5-point Likert scale. This thoughtful design of the questionnaire, with its clear structure and use of Likert scales, aimed to produce reliable and valid data that could be used to analyze the relationships between the measured constructs and their influence on the intention to engage in asset misappropriation among employees of SMEs.



3.6.2 Measuring Study Constructs

The research objectives of this study did not include the development of new measurement scales. Instead, established scales from previous studies were adapted to suit the study's needs. Some scales were modified where necessary to better align with the specific context of asset misappropriation in the workplace. The study focused on five key variables: attitude toward asset misappropriation, subjective norms, PBC, moral norms, and intention to engage in asset misappropriation. The scale used to measure intention to engage in asset misappropriation was adapted from Peace et al. (2003), which was originally developed to assess behavioural intentions to pirate software at the workplace. Meanwhile, attitude toward asset misappropriation, subjective norms, perceived behavioural control, and moral norms were all measured using the scale developed by Tonglet (2002) for examining shoplifting behaviour. These existing scales provided a reliable foundation for assessing similar constructs in the context of asset misappropriation.

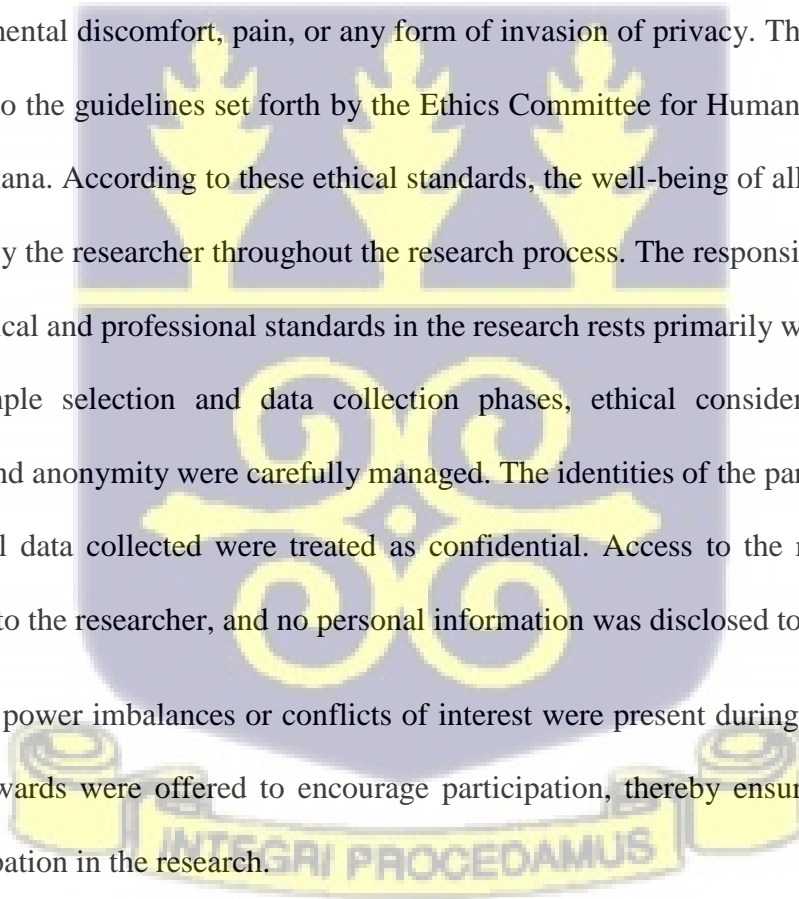
Tonglet's (2002) scale was developed to study shoplifting behaviour, which, like asset misappropriation, involves a form of unethical behaviour driven by individual attitudes, social influences, and perceived control. Since the constructs in this study similarly focus on individual motivations and behaviours related to asset misappropriation, Tonglet's scale is highly applicable, providing a valid foundation for understanding employee behaviour in this context.

Peace et al.'s (2003) scale was originally developed to measure intention to engage in deviant behaviour and has been used in studies examining behaviours like information system misuse and other ethical violations. This makes it particularly suitable for assessing employees' intentions to misappropriate assets, as the construct of intention plays a key role in predicting whether individuals are likely to engage in unethical actions. By using a scale already validated in studies of deviant behaviour, the research benefits from a tool that reliably captures the motivational

aspects behind such actions. By modifying them slightly to fit the specific focus on asset misappropriation, the researcher can maintain methodological rigor while tailoring the instruments to the study's unique objectives.

3.6.3 Ethical Considerations

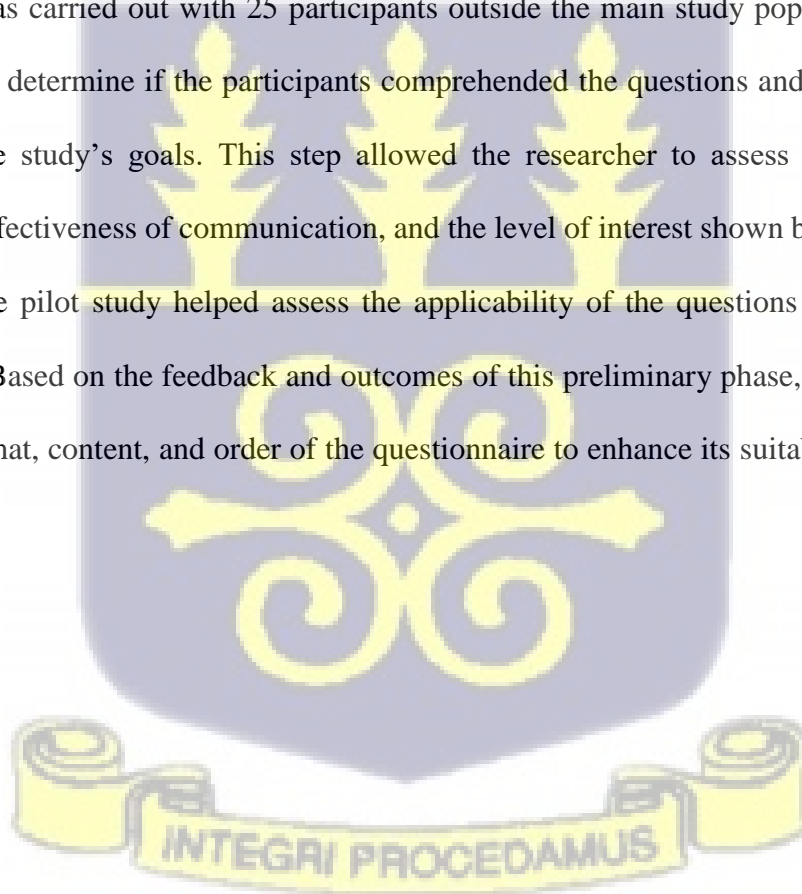
In business and social science research, ethics refers to the application of societal norms of behaviour and codes of conduct when conducting research. Researchers are obligated to ensure that the rights and well-being of participants are prioritized, which includes protecting them from physical harm, mental discomfort, pain, or any form of invasion of privacy. This particular study adhered strictly to the guidelines set forth by the Ethics Committee for Humanities (ECH) of the University of Ghana. According to these ethical standards, the well-being of all participants must be safeguarded by the researcher throughout the research process. The responsibility for ensuring adherence to ethical and professional standards in the research rests primarily with the researcher. During the sample selection and data collection phases, ethical considerations related to confidentiality and anonymity were carefully managed. The identities of the participants were not recorded, and all data collected were treated as confidential. Access to the research data was restricted solely to the researcher, and no personal information was disclosed to any third party. Furthermore, no power imbalances or conflicts of interest were present during the study, and no incentives or rewards were offered to encourage participation, thereby ensuring the voluntary nature of participation in the research.



3.6.4 Pilot Testing the Study

A pilot study is a small-scale preliminary investigation designed to assess the feasibility of research protocols, data collection methods, sampling strategies, and overall research techniques before conducting the main study. In social science research, pilot studies are essential as they help researchers identify potential challenges that may arise during the full-scale study (Lancaster et al., 2002). According to Teijlingen & Hundley, (2001), a key benefit of a pilot study is that it offers early warnings about possible issues, whether related to research protocols, methodological concerns, or the complexity of the instruments used

A pilot study was carried out with 25 participants outside the main study population. The main objective was to determine if the participants comprehended the questions and if their responses aligned with the study's goals. This step allowed the researcher to assess the clarity of the questions, the effectiveness of communication, and the level of interest shown by the participants. Additionally, the pilot study helped assess the applicability of the questions in relation to the research goals. Based on the feedback and outcomes of this preliminary phase, adjustments were made to the format, content, and order of the questionnaire to enhance its suitability for the main study.



3.6.5 Administering Questionnaire

The survey instruments were self-administered by the researcher to the respondents. The survey administration in this study faced several challenges typical of social science research. Firstly, gaining the trust of SME owners was a major challenge, as they were reluctant to allow access to their employees. The researcher mitigated this by personally engaging with the owners, explaining the academic intent of the research and ensuring that no harm would come to their businesses, which secured their cooperation.

Secondly, respondents were initially hesitant to participate due to concerns about the sensitive nature of the topic and confidentiality. To address this, the researcher assured them that their anonymity would be protected and that the data would only be used for academic purposes, which helped to alleviate their concerns.

Thirdly, a portion of the surveys returned was incomplete, a common issue in survey-based research. To minimize this, the researcher emphasized the importance of complete responses and provided flexibility in the time allowed for survey completion. This strategy encouraged more thoughtful participation. Accessing the target population also posed logistical challenges, particularly coordinating with employee schedules. The researcher addressed this by working closely with SME management to find suitable times for survey distribution and follow-up collection.

Participants were also informed that taking part in the survey was voluntary, and they could withdraw at any time if they felt unable to provide honest answers. A total of 600 questionnaires were distributed to employees across all the 29 local government areas in the Greater Accra region. Out of the 600 questionnaires administered, 532 were returned. However, 62 of these were

incomplete and, therefore, excluded from the data analysis. Thus, 470 fully completed questionnaires were used in the analysis, representing a response rate of 78.3%. The response rate of 78.3% indicates successful mitigation of the challenges faced.

3.7 Data Analysis Techniques

Primary data was collected through questionnaires administered to employees of SMEs in Greater Accra region. The data was initially analysed using Microsoft excel to derive the descriptive statistics of respondents and their responses. Following this, inferential statistics were applied to test the core assumptions of the study using PLS-SEM.

3.7.1 Structural Equation Modelling

To examine relationships between the research variables, Partial Least Squares-Structural Equation Modeling (PLS-SEM) was used. PLS-SEM is a second-generation regression technique that allows for the simultaneous estimation of causal relationships among multiple independent and dependent variables (Hair et al., 2011; Hair et al., 2019). This method combines principal component analysis with traditional least squares regression, enabling separate evaluation of both the measurement and structural models (Hair et al., 2019).

Although PLS-SEM is theoretically and practically comparable to multiple regression analysis, it is particularly advantageous for understanding more complex structural and measurement models (Hair et al., 2011). Researchers have access to two primary SEM techniques: Covariance-Based SEM (CB-SEM), developed by Jöreskog (1973, 1993), and Variance-Based Partial Least Squares

SEM (PLS-SEM), pioneered by Wold (1982) and Lohmöller (1989). When deciding between these methods, it is essential to understand the distinctions between the two approaches to determine the most suitable one for the specific research context.

3.7.2 Co-variance Based Structural Equation Model (CB-SEM)

The main goal of CB-SEM is to confirm established theories by emphasizing explanation. Its primary objective is to reduce the difference between the observed sample covariance matrix and the estimated covariance matrix generated from the theoretical model. Built on the common factor concept, CB-SEM operates under the assumption that the analysis should focus solely on the common variance shared by the variables. In this approach, the covariance between variables is calculated, and the analysis centers exclusively on the common variance (Hair et al., 2017). CB-SEM is mainly used to support or refute theoretical constructs and the hypotheses underlying them. CB-SEM evaluates how effectively a proposed theoretical model can replicate the covariance matrix of an observed dataset, thereby supporting the confirmation or rejection of a set of assumptions (Hair et al., 2021). Its primary strength is its capacity to rigorously validate established theories and models.

3.7.3 Partial Least Square Structural Equation Model (PLS-SEM)

PLS-SEM is a prediction-oriented SEM technique particularly suited for exploratory research, though it can also be employed for confirmatory research (Sarstedt et al., 2014a). PLS-SEM models are designed to achieve high prediction accuracy while addressing complex causal relationships, effectively bridging the gap between predictive and confirmatory research (Sarstedt

et al., 2018). PLS-SEM is highly effective for managing complex models and smaller sample sizes in research. Its flexibility allows it to handle models with many constructs, multiple dependent and independent variables, and more indicators per construct than traditional methods like CB-SEM. It can analyse complex relationships, including mediators and moderators, while being robust against non-normal data and multicollinearity.

PLS-SEM is based on the composite model (Hair et al., 2017c), which incorporates common, particular, and error variance, utilizing all available variance from independent variables to predict changes in the dependent variables. One drawback of this approach is that error variance can be included if it contributes to predicting the dependent variable(s). Despite this, the composite model is often more effective in maximizing the explained variance in dependent variables (Hair et al., 2017). PLS-SEM is more flexible compared to CB-SEM as it can handle smaller sample sizes, more complex models, and less restrictive data assumptions (Hair et al., 2011). This makes PLS-SEM capable of addressing a wider variety of research problems. For smaller sample sizes, PLS-SEM outperforms CB-SEM by requiring fewer data points to generate reliable results. It follows the "10-times rule", which allows researchers to work with limited datasets. Additionally, bootstrapping in PLS-SEM enables statistical inference despite smaller samples, making it ideal for exploratory research or when the target population is difficult to access. In contrast to CB-SEM, PLS-SEM excels when data assumptions are less restrictive and sample sizes are small, making it a powerful tool for studies with complex models and limited data. The path models in PLS-SEM consist of two sets of linear equations.

The measurement model assesses the relationships between constructs and their indicators, while the structural model examines the relationships between the study's variables. Following optimization of the measurement model parameters through the PLS-SEM algorithm, the structural

model is calculated. Once the measurement model is finalized, the structural model results can be thoroughly analysed. PLS-SEM is widely used in social science research because of its many advantages. It is effective with both small and large sample sizes and can handle models with variable indicators ranging from three to fifty (Binz et al., 2014). Additionally, it can accommodate a broader range of issues by making fewer restrictive data assumptions, allowing it to perform well across diverse research contexts.

3.7.4 Criteria for the Selection of CB-SEM or PLS-SEM

The selection of an appropriate statistical approach between PLS-SEM and CB-SEM is dependent on several essential criteria outlined in the literature. In the view of Hair et al. (2011), the choice is influenced by the objectives of the study, the nature of the measurement model, the characteristics of the data, and the complexity of the structural model.

First, the goals of the study play a significant role. CB-SEM is typically favoured when the aim is to validate theories, whereas PLS-SEM is more suited for studies focused on prediction or exploratory research. When a solid theoretical foundation is in place, and the objective is to test and validate established theories, CB-SEM is the ideal statistical method, especially for causal modeling (Hair et al., 2011). This approach is highly effective for theory validation, offering a reliable framework for confirming hypotheses grounded in previous research. On the other hand, if the theory is less developed, or when theory confirmation is not the primary goal, PLS-SEM offers a better alternative. Its emphasis on prediction makes it the preferred method for studies focused on theory development and exploratory research. Researchers often turn to PLS-SEM

when the objective is to predict relationships and build new theoretical frameworks, rather than merely test existing ones (Hair et al., 2011).

Understanding the distinct aims of each technique is crucial for their appropriate application, ensuring that the chosen method aligns with the study's research goals.

Additionally, the choice of measurement model whether it is formative or reflective is another important factor. CB-SEM works best with reflective models, while PLS-SEM can effectively handle both formative and reflective models.

The characteristics of the data, such as normality, sample size, and the number of construct indicators, are also crucial in deciding which method to use. PLS-SEM tends to perform better with smaller, non-normal datasets, whereas CB-SEM requires larger samples and normal distribution for more accurate results.

Finally, the assessment of the structural model should be considered. PLS-SEM is often more suitable for models with complex interrelations and a focus on prediction, while CB-SEM excels in simpler models focused on confirming theoretical relationships.

These criteria help researchers align their choice of method with the specific objectives and data characteristics of their study

3.7.5 Formative and Reflective Constructs

The specification of the measurement model is crucial in determining whether to apply PLS-SEM or CB-SEM. In a reflective model, the construct exists independently of its indicators, which are considered outcomes of the underlying construct. This means that any modifications to the

construct will result in corresponding changes in the indicators (Hair et al. 2014). If the study's objective is to predict or explain observed measurements, any unexplained variation in the measurement model must be accounted for through a reflective approach.

Conversely, in a formative model, the construct is shaped by its indicators, rather than the other way around. Changes in the construct do not directly impact the indicators; instead, the indicators collectively define or influence the construct. In formative models, arrows point toward the latent construct, demonstrating how the indicators contribute to its composition. Meanwhile, reflective models are depicted with arrows extending from the construct to the indicators, signifying that alterations in the construct drive changes in the indicators (Sarstedt et al., 2016).

Understanding the nature of the constructs in a study can help a researcher choose the appropriate modelling technique. CB-SEM is generally recommended for reflective constructs (Hair et al., 2011, 2012), as it aligns well with their underlying assumptions. While CB-SEM can technically be used with formative constructs, it requires following complex and restrictive specification rules. For formative constructs, PLS-SEM is often the better choice, as it handles formative indicators more effectively within the structural model. Moreover, PLS-SEM works well when the structural model contains both reflective and formative constructs, offering greater flexibility in model specification (Hair et al., 2022).

3.8 Assessing the Measurement Model

Qualitative indicators like face validity are considered inadequate for establishing validity in SEM. Instead, researchers advised to rely on quantitative methods to provide more accurate and reliable evaluations (Hair et al., 2017). The relationship between latent constructs and their corresponding

indicator variables are defined by the measurement model and its assessment is crucial to determine whether the constructs meet the required thresholds for SEM analysis. This ensures that the model achieves adequate construct validity and reliability, which are critical for accurate interpretation of results.

In the view of Hair et al. (2017), the evaluation of reflective models involves testing three key aspects: discriminant validity, which ensures that constructs are distinct from one another; internal consistency reliability, which verifies the consistency of the indicators in measuring the same construct; and convergent validity, which ensures that indicators correlate well with their respective constructs.

3.8.1 Internal Consistency Reliability

Indicator reliability is essential for assessing a model's internal consistency, ensuring that a questionnaire yields consistent results when administered to similar subjects under comparable conditions. In this framework, indicator loadings are used to evaluate the reliability of each indicator within the model. According to Hair et al. (2011), an indicator loading of 0.7 or higher is ideal for retaining the indicator in the measurement model. Indicators with loadings between 0.40 and 0.70 may be removed if doing so enhances composite reliability beyond the accepted threshold, as recommended by Hair et al. (2011).

Prior studies, including those by Urbach and Ahlemann (2010), Hair, Mathews, Mathews, and Sarstedt (2017), and Hair, Howard, and Nitzl (2020), recommend evaluating internal consistency reliability using Composite Reliability (CR) and Cronbach's Alpha (CA). A reliability score, whether calculated using CA or CR, of 0.7 or higher is generally considered sufficient. However,

Cronbach's Alpha operates under the assumption that all indicators carry equal weight and are equally reliable, meaning construct indicators are not weighted. In contrast, Composite Reliability assumes that indicators vary in reliability, assigning weights accordingly to produce a more accurate internal consistency score.

In PLS-SEM, Composite Reliability is preferred over Cronbach's Alpha. This preference stems from the fact that PLS-SEM assigns greater importance to indicators based on their individual reliability during model estimation, offering a more nuanced evaluation. It is important to note, however, that both Cronbach's Alpha and Composite Reliability scores above 0.95 are considered too high. Scores at or above this threshold suggest that the items in the research instrument are redundant, meaning they assess the same concept. As noted by Hair, et al. (2019), this redundancy indicates that some items in the questionnaire may not be necessary, as they fail to provide the diversity needed to ensure the reliability of constructs that include many items. In essence, while a reliability score of 0.7 or higher is the desired standard, overly high scores, such as those at or above 0.95, may point to issues of redundancy within the measurement model, ultimately affecting the diversity and usefulness of the indicators.

3.8.2 Convergent Validity

The next essential step in evaluating the measurement model is to address the convergent validity of the items used to measure the constructs. Convergent validity evaluates how well a construct captures the variance in its individual indicators. In the view of Hair, et al., (2018), convergent validity is essential for determining how effectively the indicators of a construct are aligned with what they are intended to measure.

The most accurate indicator of convergent validity is the Average Variance Extracted (AVE). The AVE measures how well the various indicators of a construct converge to represent that construct. The recommended threshold according to Hair et al. (2011) is an AVE value of 0.5 or higher. When the AVE meets or exceeds this threshold, it signifies that the construct explains at least 50% of the variance in its corresponding indicators. In other words, an AVE score of 0.5 or greater means that the concept being measured accounts for the majority of the variation in its individual items, thus confirming convergent validity. The calculation of AVE involves squaring each indicator's loading on the construct and then determining the mean of those squared loadings (Hair, et al., 2018). This method ensures a precise evaluation of how well the indicators reflect the underlying construct, contributing to the overall reliability and validity of the measurement model.

3.8.3 Assessment of Discriminant Validity

Discriminant validity assessment is crucial for determining the uniqueness of various constructs within a study. It ensures that the indicators of a particular construct differ adequately from those of other constructs. Discriminant validity tests whether the indicators for one construct could mistakenly measure another construct with greater accuracy, thus verifying the distinction between constructs.

The Fornell and Larcker (1981) criterion is one of the most widely used methods for assessing discriminant validity. According to this approach, a variable should correlate more strongly with its own indicators than with those of any other variable in the study. To apply the Fornell and Larcker criterion, researchers calculate the square root of the AVE for each variable. The square root of a variable's AVE should be higher than its correlations with other variables in the study.

This comparison ensures that the variable's indicators are measuring the intended construct rather than overlapping with other constructs.

An alternative method for assessing discriminant validity is the cross-loading approach, where an indicator should load more strongly on its own construct than on others. As noted by Hair et al. (2011), this guideline ensures that each indicator is most closely aligned with the construct it is meant to measure.

A more contemporary approach to assessing discriminant validity is the Heterotrait-Monotrait (HTMT) ratio, introduced by Henseler et al. (2015). The HTMT is calculated as the ratio of the average correlations between different constructs to the geometric mean of the average correlations within the same construct (Hair, et al., 2018). Elevated HTMT values may signal potential issues with discriminant validity. For structural models involving similar constructs, Henseler et al. (2015) suggest an HTMT threshold of 0.90, with values exceeding this level indicating possible discriminant validity concerns. For models with distinct constructs, they propose a stricter threshold of 0.85 or lower to ensure sufficient separation between constructs.

In summary, discriminant validity is confirmed when constructs are adequately distinct from one another, as demonstrated through methods such as the Fornell and Larcker criterion, cross-loading, and HTMT ratios. Each approach offers unique insights into the degree of overlap between constructs, ensuring that the measurement model maintains conceptual clarity.

3.9 Assessing the Structural Model

The subsequent step in the research process involves evaluating the structural model. This evaluation aims to confirm that the collected data aligns with the hypotheses proposed by the

structural model (Urbach and Ahlemann, 2010). Before testing the study's assumptions, the structural model is examined to assess its predictive capacity for endogenous constructs. This assessment includes three main methods: collinearity tests, the coefficient of determination (R^2), and tests for predictive relevance.

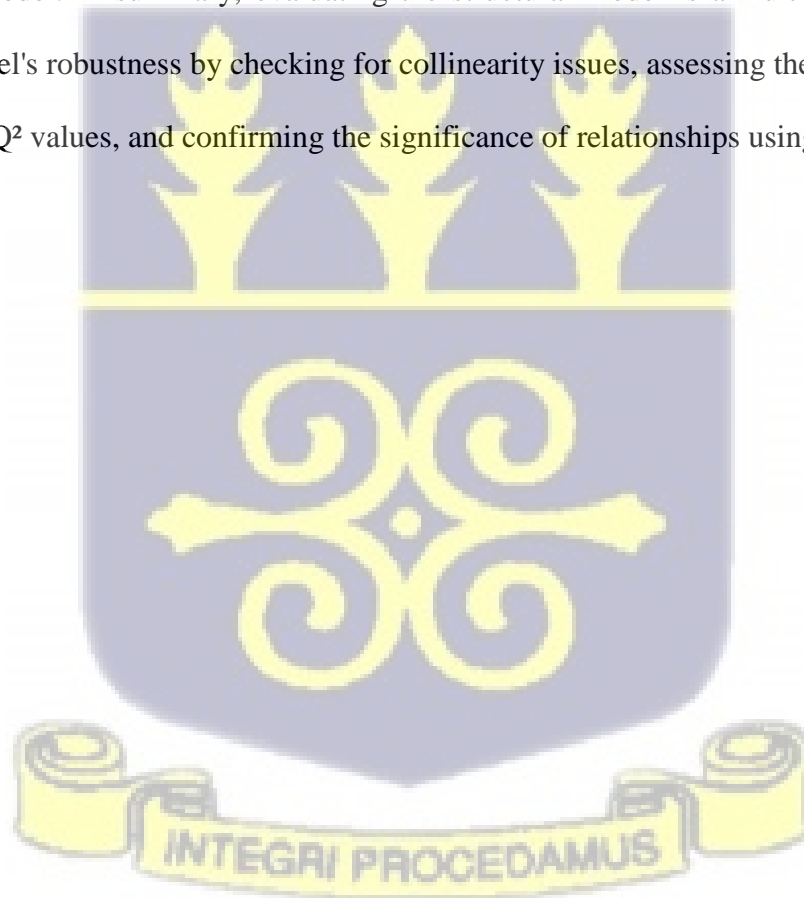
The first step is to examine collinearity to ensure it does not distort regression outcomes. Collinearity arises when independent variables are highly correlated, complicating the assessment of their individual impacts on the dependent variable. Henseler and Ringle (2009) recommend using the Variance Inflation Factor (VIF) to test for collinearity prior to hypothesis testing. The VIF measures the extent of collinearity among variables, indicating how much the variance of a regression coefficient is increased due to collinearity. According to O'Brien (2007), VIF values above 10 indicate potential collinearity issues. However, Hair, Risher, Sarstedt, and Ringle (2018) recommend a more conservative threshold of 5, with values above this suggesting collinearity problems. Ideally, VIF values should be 3 or lower to minimize the risk of collinearity in the model.

Once collinearity issues are resolved, the next step is to evaluate the coefficient of determination (R^2) for the dependent variables. The R^2 value measures how much variance in the dependent variable(s) is explained by the independent variables. According to Hair et al. (2012), an R^2 value of 0.25 indicates a weak effect, 0.5 represents a moderate effect, and 0.75 suggests a substantial effect.

Another important approach for assessing the predictive accuracy of a PLS-SEM path model is by calculating the cross-validated redundancy (Q^2) value. This metric is derived using the blindfolding technique, where individual data points are systematically removed, replaced with the mean, and the model parameters are recalculated (Rigdon, 2014b; Sarstedt et al., 2014). The

omitted values are then predicted based on the adjusted model. If the Q^2 value is greater than zero, the model is deemed to have predictive relevance (Sarstedt et al., 2014).

Finally, the structural model's paths are analysed by examining the coefficients and their significance using a resampling technique called bootstrapping, which is used to test the research hypotheses. One advantage of the Partial Least Squares SEM method is that it does not require assumptions about the data distribution regarding error terms. In bootstrapping, a large number of subsamples typically 5,000 are generated from the original data. The model is re-estimated for each subsample, and the results are used to assess confidence intervals and the goodness of fit for the PLS path model. In summary, evaluating the structural model is a multi-step process that ensures the model's robustness by checking for collinearity issues, assessing the predictive power through R^2 and Q^2 values, and confirming the significance of relationships using bootstrapping.



CHAPTER FOUR

RESULTS AND DISCUSION

Introduction

This chapter provides a detailed discussion of the findings from the collected and analysed data. It begins by presenting and discussing the descriptive statistics of the respondents' demographic data, followed by a similar analysis of the main constructs of the study. This approach ensures a comprehensive overview of the characteristics of the data. Afterward, the chapter delves into the empirical results, which are thoroughly explored using statistical methods to provide deeper insights into the study's outcomes.

4.1 Demographics of Respondents

Recording participants' demographic data, including gender, age, educational background, and employment duration, was essential to understanding the broader factors influencing asset misappropriation. These demographic factors offer critical insights into patterns of behaviour and motivations that vary across different groups.

Gender: The majority of respondents were female (61.3%), while males accounted for 38.7%. This gender distribution may affect how asset misappropriation is perceived or acted upon. Research suggests that gender can influence ethical decision-making, with some studies indicating that women may exhibit more risk-averse and ethical behaviours in workplace settings (Gilligan, 1982; Betz et al., 1989). However, the higher representation of females in this study may also

reflect industry-specific employment patterns, such as a greater number of women in wholesale and retail sectors, which could influence the overall findings related to asset misappropriation.

Age: With 90.9% of respondents falling within the 18–40 age bracket, the study predominantly represents younger employees. Younger workers may have different attitudes toward asset misappropriation compared to older employees, possibly due to factors such as less work experience, differing risk perceptions, or evolving workplace ethics (Ng & Feldman, 2010). Older employees (9.1%) may bring more caution and experience to decision-making processes, potentially leading to lower tendencies toward unethical practices. The predominance of younger employees could skew the results toward behaviours more common in early-career professionals.

Educational Background: Most respondents held tertiary education (59.8%), followed by WASSCE holders (34.9%), with a small percentage having only basic education (5.3%). Higher education levels typically correlate with greater awareness of ethical practices and corporate governance, potentially leading to stronger opposition to asset misappropriation (Schwartz, 2007). However, individuals with less education might face different pressures, such as lower income, which could increase their vulnerability to engaging in unethical behaviour. The high level of education among respondents suggests that the participants were likely to comprehend the survey questions and provide thoughtful responses, which strengthens the reliability of the data.

Employment Duration: Employment tenure can also influence the likelihood of asset misappropriation. Most respondents had been with their employer for 3-4 years (188 respondents), suggesting they have had enough time to understand workplace systems but may not yet have developed long-term loyalty. Employees who have been with an organization for a longer time (over 6 years, in the case of 45 respondents) might have a stronger sense of commitment and responsibility, which could reduce the likelihood of engaging in asset misappropriation (Treviño

et al., 2006). Conversely, shorter tenure (less than 3 years) may correlate with higher risk-taking behavior due to a weaker connection to the organization.

Industry: The majority of respondents worked in the wholesale and retail (38.5%) and manufacturing (35.1%) sectors, both of which are prone to asset misappropriation, particularly in areas like inventory theft or mismanagement of cash flows (KPMG, 2013). Industries such as education, health, and professional services, which had lower representation, may involve different types of asset misuse, such as fraudulent billing or inappropriate use of resources. Understanding these industry-specific risks allows for a more nuanced interpretation of how different sectors influence the likelihood and types of asset misappropriation.

Table 4.1 Demographic Characteristics of Respondents

Variable	Sub-group	Frequency	Percentage
Gender	Male	182	38.7
	Female	288	61.3
Age	18-25	124	26.4
	26-30	139	29.6
	31-35	87	18.5
	36-40	77	16.4
	41 and above	43	9.1
Educational Level	BECE	25	5.3
	WASSCE	164	34.9
	HND/Diploma	148	31.5
	Degree	118	25.1

	Masters	15	3.2
Years Working with Current Employer	Below 3 years	152	32.3
	3 – 4 years	188	40
	5 – 6 years	85	18.1
	More than 6 years	45	9.6
Type of Industry	Education	42	8.9
	Wholesale/Retail	181	38.5
	Manufacturing	165	35.1
	Health	27	5.7
	Food and Beverage	22	4.7
	Hospitality	18	3.9
	Professional Services	15	3.2

Source; Author, (2024)

4.2 Descriptive Statistics of Constructs

This section presents and analyses the mean and standard deviation scores of the questions used to measure the five key variables of the study. The mean score of each indicator under a particular construct represents the degree of agreement or disagreement that respondents expressed toward the statements provided.

The first construct, Attitude towards Asset Misappropriation, recorded an overall mean of 5.08. This indicates that respondents generally held an unfavorable attitude toward asset

misappropriation. Specifically, most participants agreed that misappropriating assets is bad, with a mean score of 4.96, dishonest (mean = 5.13), wrong (mean = 5.09), and unattractive (mean = 5.15). These scores suggest a strong consensus among respondents regarding the negative nature of asset misappropriation.

The second construct, Subjective Norms, had the highest overall mean score, 5.27, indicating that respondents felt significant social pressure against asset misappropriation. The item "*most of the people who are important to me would look down on me if I were to misappropriate assets of my employer*" had the highest mean score of 5.33 with a standard deviation of 1.41. The item "*if I were to misappropriate assets at work, most of the people who are important to me would disapprove*" had a mean score of 5.16 and a standard deviation of 1.41. These results suggest that the social environment plays a critical role in discouraging individuals from engaging in asset misappropriation.

The third construct, Perceived Behavioral Control (PBC), yielded an average mean score of 5.16, highlighting respondents' belief that misappropriating assets at their workplace is relatively easy. The highest scoring indicator, "*If I wanted to misappropriate assets at work, it would be easy,*" had a mean score of 5.18, suggesting that employees with the intent to misappropriate assets perceive minimal barriers to doing so. Similarly, the indicator "*The control systems in place at work make it easy for other employees and me to misappropriate assets,*" recorded a mean score of 5.17, further emphasizing the inadequacy of existing control mechanisms in SMEs. These findings underscore the vulnerability of many SMEs to asset misappropriation due to weak or insufficient internal controls. Research indicates that SMEs often face resource constraints that limit their ability to implement robust governance structures, such as segregation of duties, regular audits, and effective monitoring systems (Omar et al., 2016; Koomson et al., 2020). The absence

of effective deterrents, such as surveillance systems or transparent reporting mechanisms, increases the perception that misappropriation is achievable without consequence (Zainal et al., 2022). These findings suggest the critical need for SMEs to strengthen internal control systems to mitigate opportunities for fraudulent behavior.

The fourth construct, Moral Norms, recorded an average score of 3, indicating that respondents did not feel guilt about asset misappropriation. The indicator "I feel no guilt when misappropriating assets" had a mean score of 2.90, while "I have no principled stand against asset misappropriation" recorded a mean score of 3.01, and "I do not consider it morally wrong to misappropriate assets" had a mean of 3.18. These scores suggest that respondents generally held strong moral convictions against misappropriating assets.

The primary construct of interest, Asset Misappropriation Intention, recorded an average mean score of 4.70. On a seven-point Likert scale, this indicates that respondents had moderate intentions to engage in asset misappropriation. All three indicators for this construct had mean scores above 4, with the statement "If I had the opportunity, I might misappropriate assets at work" achieving the highest mean score of 4.71 and a standard deviation of 1.44. The other two indicators, "I might misappropriate assets at work in the future" and "I would never misappropriate assets at work," both had mean scores of 4.69 and standard deviations of 1.51 and 1.45, respectively. These results reflect that while respondents generally disapprove of asset misappropriation, a moderate intention to engage in such behaviour exists when the opportunity arises.

In summary, the descriptive statistics reveal that while respondents hold generally negative attitudes toward asset misappropriation, perceive social norms against it, and acknowledge weak internal controls, there remains a moderate intention to engage in such behaviour under certain circumstances.

Table 4.2: Descriptive Statistics on Constructs

Variables	Mean	Standard Deviation
Attitude towards asset misappropriation	5.08	1.68
To me, misappropriating the assets of my employer is bad	4.96	1.60
To me, misappropriating the assets of my employer is dishonest	5.13	1.76
To me, misappropriating the assets of my employer is wrong	5.09	1.67
To me, misappropriating the assets of my employer is unacceptable	5.15	1.70
Subjective norms	5.27	1.43
If I were to misappropriate assets at work, most of the people who are important to me would disapprove	5.16	1.41
Most of the people who are important to me would discourage me from misappropriating the assets of my employer	5.32	1.41
Most of the people who are important to me would think that misappropriating assets at work is morally wrong.	5.29	1.48
Most of the people who are important to me would look down on me if I were to misappropriate assets of my employer.	5.33	1.41
Perceived behavioural control	5.16	1.52
The control systems in place at work makes it easy for other employees and me to misappropriate assets	5.17	1.35
If I wanted to misappropriate assets at work, it would be easy.	5.18	1.63
It is unlikely that I would get caught if I were to misappropriate assets at work	5.11	1.59

There are many opportunities at work for other employees and me to misappropriate assets at work	5.18	1.52
Moral norms	3	1.58
I would feel guilty if I were caught misappropriating assets at work.	2.90	1.54
Misappropriating the assets of my employer is against my principles	3.01	1.64
Misappropriating the assets of my employer is morally wrong.	3.19	1.56
Asset misappropriation intention	4.70	1.47
I might misappropriate assets at work in the future	4.69	1.51
If I had the opportunity, I might misappropriate assets at work	4.71	1.44
I would never misappropriate assets at work	4.69	1.45

Source: Author, (2024)

4.3 Assessment of the Measurement Model

Hair et al. (2013) explain that the measurement model illustrates the connection between constructs and their corresponding indicator variables. In the context of (PLS-SEM), Ramayah, Lee, & In (2011) emphasize that the measurement model is assessed using two key criteria. These are validity and reliability tests. A reliability test assesses a questionnaire's ability to consistently measure the concept it is intended to evaluate. This ensures that the instrument yields stable and consistent results over time. In contrast, a validity test determines how accurately the questionnaire measures the specific ideas or constructs it is designed to assess (Bambale, 2013). Together, these tests are essential for ensuring the quality and accuracy of the measurement model in research.

4.3.1 Indicator Reliability

The outer loadings of variable indicators are used to determine indicator reliability, with higher outer loadings indicating greater similarity amongst the items in the questionnaire. Questions that exhibit outer loadings below 0.5 and pose obstacles to achieving higher AVEs should be removed (Rehman & Hashim, 2020). The indicator loadings for all constructs in the study are presented in the table below. As shown, all loadings meet the minimum threshold of 0.5, confirming that the questions used to measure the research constructs are valid. Table 4.3 provides the results for indicator reliability.

Table 4.3: Indicator Reliability of Constructs

	ATT	SN	PBC	MN	AMI
ATT1	0.887				
ATT2	0.873				
ATT3	0.918				
ATT4	0.892				
SN1		0.877			
SN2		0.904			
SN3		0.888			
SN4		0.816			
PBC1			0.909		
PBC2			0.915		
PBC3			0.855		

PBC4			0.801		
MN1				0.946	
MN2				0.951	
MN3				0.914	
AMI1					0.891
AMI2					0.911
AMI3					0.876

4.3.2 Internal Consistency

After confirming acceptable results from the indicator reliability assessment, an internal consistency test was conducted. This test evaluates how well a set of indicators collectively measures the same construct. The two metrics for construct internal consistency that are most frequently employed are Cronbach Alpha (CA) and Composite Reliability (CR). According to a 2012 study by Hair, Sarstedt, Ringle, and Mena, CR outperforms CA because it utilizes the indicator loadings extracted by the model itself and does not assume that all indicators have equal weights. Hair et al., (2011) propose a CA or CR values of 0.7 or higher for internal consistency to be deemed valid. According to Risher, et al., (2019), CA or CR values between 0.6 and 0.7 are acceptable in exploratory studies.

4.3.3 Convergent Validity

Convergent validity is a criterion of a measuring tool's effectiveness, which is frequently a set of question-statements (Kock, 2020a). If respondents understand each latent variable's

questionstatement (or other measure) in the same way that the researchers intended, the measuring tool has good convergent validity (Kock, 2014). Fornell and Larcker advise that convergent validity assessment be done with the aid of Average Variance Extracted (AVE). The cutoff value for the AVE is advised to be 0.5 and above, i.e., each construct should account for at least 50% of the 87 variation in its set of indicators. The table below shows the values for CR, CA and AVE recorded in this study. As Table 4.4 below depicts, all the recommended thresholds have been met.

Table 4.4 Internal Consistency Reliability and Convergent Reliability

Construct	Cronbach's Alpha (CA)	Composite Reliability (CR)	Average Variance Extracted (AVE)
ATT	0.915	0.940	0.797
AMI	0.873	0.922	0.797
MN	0.931	0.956	0.878
PBC	0.894	0.926	0.759
SN	0.895	0.927	0.761

4.3.4 Discriminant Validity

A construct's discriminant validity is assessed in three ways. The cross loadings method, the Heterotrait-Monotrait (HTMT) technique, and the Fornell and Larcker (1981) criterion. The most widely used criterion is that proposed by Fornell and Larcker (1981), who suggest that the square root of the AVE for a given construct should exceed its correlations with other constructs in the model. Table 4.5 below displays the discriminant validity of the study's constructs.

Table 4.5: Fornel and Larcker Criterion for Discriminant Validity

	ATT	AMI	MN	PBC	SN
ATT	0.893				
AMI	0.602	0.893			
MN	-0.572	-0.526	0.937		
PBC	0.695	0.587	-0.572	0.871	
SN	0.684	0.601	-0.481	0.782	0.872

Another approach for measuring discriminant validity is the Heterotrait-Monotrait (HTMT) ratio as proposed by Henseler et al. (2015). It compares the average correlations among items within the same construct to the mean correlations across different constructs. Higher HTMT values suggest potential discriminant validity issues. While Henseler et al. (2015) recommend an HTMT value below 0.90, some researchers advocate for a stricter threshold of less than 0.85. As shown in Table 4.6, the results meet both criteria, confirming discriminant validity based on the HTMT method.

Table 4.6: HTMT Method for Discriminant Validity

	ATT	AMI	MN	PBC	SN
ATT	-				
AMI	0.671				
MN	0.619	0.581			
PBC	0.768	0.658	0.624		
SN	0.755	0.675	0.525	0.870	-

The third and last method for evaluating the discriminant validity of constructs is the cross loading approach. Hair, Ringle, and Sarstedt (2011) assert that any cross loadings that are greater than the outer loadings of the indicators indicates a discriminant validity issue. The researcher looked for any issues with discriminant validity using the cross loading approach but none were discovered because all the indicator outer loadings were greater than any of the cross loadings. Table 4.7 below depict the loadings and cross loadings of all constructs in the study.

Table 4.7: Cross Loading Method for Discriminant Validity

	ATT	AMI	MN	PBC	SN
ATT1	0.887	0.531	-0.506	0.655	0.652
ATT2	0.873	0.516	-0.465	0.628	0.595
ATT3	0.918	0.558	-0.508	0.581	0.582
ATT4	0.892	0.542	-0.562	0.621	0.617
AMI1	0.562	0.891	-0.460	0.541	0.570
AMI2	0.491	0.911	-0.470	0.485	0.489
AMI3	0.554	0.876	-0.478	0.542	0.546
MN1	-0.543	-0.513	0.946	-0.533	-0.459
MN2	-0.545	-0.516	0.951	-0.555	-0.442
MN3	-0.520	-0.444	0.914	-0.521	-0.454
PBC1	0.598	0.513	-0.477	0.909	0.649
PBC2	0.676	0.579	-0.526	0.915	0.760
PBC3	0.583	0.507	-0.581	0.855	0.739
PBC4	0.557	0.432	-0.400	0.801	0.560

SN1	0.621	0.502	-0.351	0.704	0.877
SN2	0.585	0.538	-0.420	0.703	0.904
SN3	0.648	0.578	-0.504	0.689	0.888
SN4	0.525	0.470	-0.391	0.632	0.816

4.4 Assessment of the Structural Model

After confirming that the measurement model is suitable for evaluating PLS-SEM results, the next step is to assess the structural model. Key assessment criteria include the coefficient of determination (R^2), the blindfolding-based cross-validated redundancy measure (Q^2), multicollinearity testing, and examining the statistical significance and relevance of path coefficients. Furthermore, the model's out-of-sample predictive ability must be evaluated by researchers using the PLS predict approach, as recommended by Shmueli et al. (2016).

4.4.1 Multicollinearity

To ensure that collinearity is not skewing the regression findings, it must be examined before evaluating the structural relationships. Multi-collinearity develops in a model when the Variance Inflation Factor (VIF) values for certain indicators are 5 or higher, according to Garca-Carbonell, Martn-Alcázar, and Sánchez-Gardey (2015). However, Risher, et al., (2019) recommend that the ideal VIF values should be close to 3 and lower. In this study, all VIF values for all constructs are well within the recommended threshold of 3 and below. This is depicted in Table 4.8 below.

4.4.2 Common Method Bias

To ensure that responses were not influenced by social desirability bias, a common method bias test was conducted, considering that the same respondents provided answers for both the independent and dependent variables. According to Kock (2015), a VIF greater than 3.3 suggests the presence of common method bias within the model. In this study, all VIF values were calculated and are presented in Table 4.8. Each VIF value was found to be below the threshold of 3.3, indicating no significant risk of common method bias. This suggests that the model's results are reliable, as the influence of respondents' tendencies to respond in a socially desirable manner did not bias the relationships between the variables measured. This step ensures that any significant relationships identified between the independent and dependent variables reflect genuine associations rather than artefacts of the survey methodology.

4.4.3 Coefficient of Determination

In assessing the model's predictive power, the coefficient of determination (R^2) was examined. The co-efficient of determination explains the extent to which the exogenous variables (Attitude towards Asset Misappropriation, Subjective Norms, Perceived Behavioural Control, and Moral Norms) explain the variance in the endogenous variable (Behavioural Intention to Misappropriate Assets). The R^2 serves as a gauge of the model's explanatory ability (Shmueli and Koppius, 2011). Higher values of the R^2 denote a stronger explanatory power. In the view of Risher, et al., (2019), an acceptable R^2 value should be assessed in light of the context of the study and be based on R^2 values from similar research. The R^2 of this study is 0.467 or 46.7% as shown in table 4.8 below.

This indicates that the exogenous variables account for 46.7% of the variance in the endogenous variable.

4.4.4 Assessment of Predictive Accuracy

The researcher proceeded to examine the predictive relevance of the PLS-SEM path model. This process was executed with the cross-validated redundancy measure (Q^2) and with the help of PLS predict. This measurement is based on a PLS predict method that eliminates individual data points, replaces those points with the means and calculates the model's parameters (Sarstedt et al., 2014). For a given endogenous construct, Q^2 values should, as a general rule, be higher than zero to reflect the structural model's predictive accuracy. The estimated Q^2 value for this study is 0.455 as shown in table 4.8 below. This figure is greater than zero, hence predictive relevance was established. Table 4.8 below shows the (VIF), (R^2), Cross Validated Redundancy (Q^2) values of this study.

Table 4.8: VIF, R^2 and Q^2 of Constructs

Factor	VIF	(R^2)	(Q^2)
ATT	2.02		
SN	2.26		
PBC	2.57		
MN	3.02		
R^2		0.467	
Q^2			0.455

4.5 The Path Diagrams

The path diagram illustrating the study's hypotheses is presented in the figure below. It visually represents the direct and indirect relationships among the variables examined in this study.

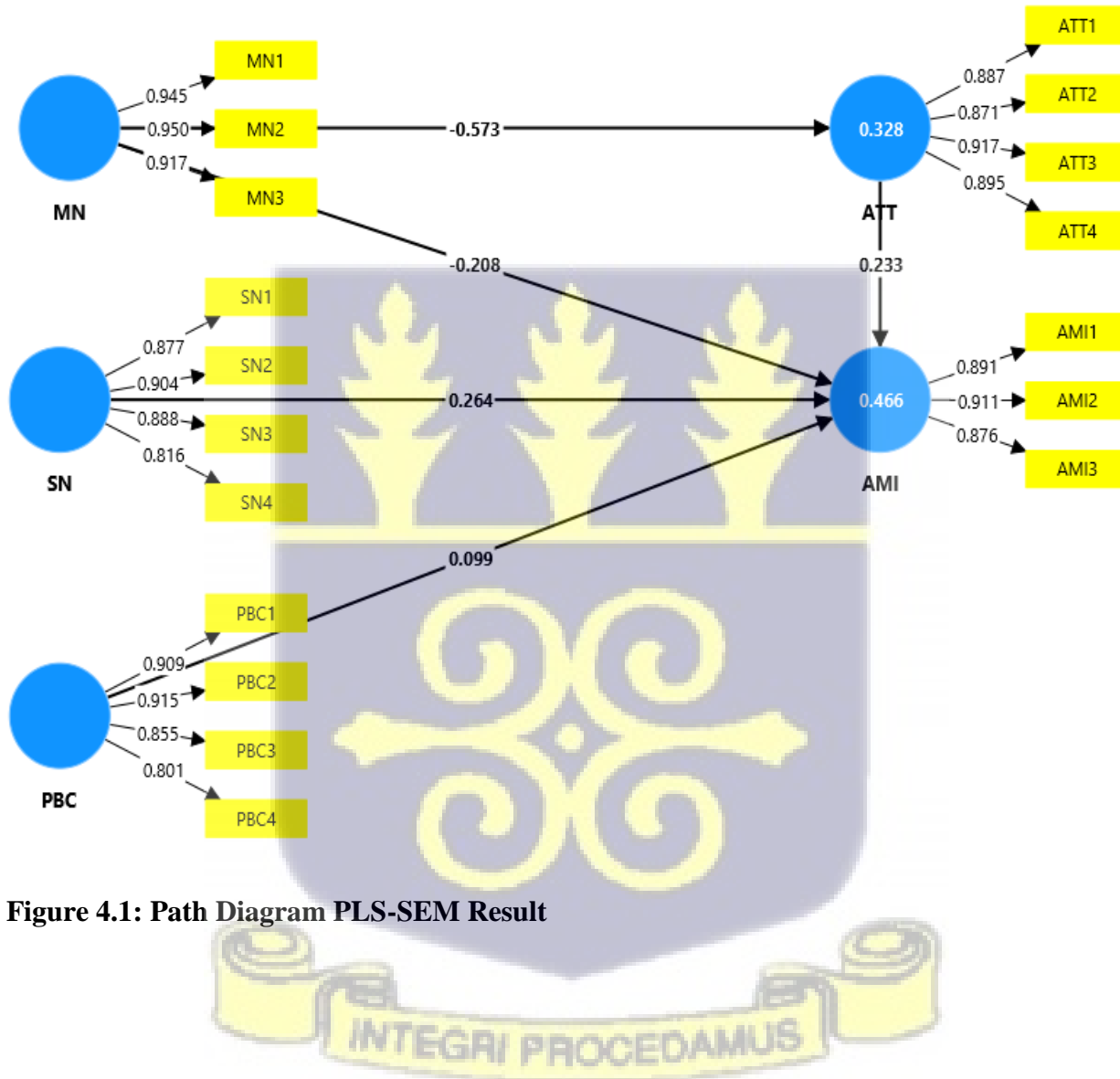


Figure 4.1: Path Diagram PLS-SEM Result

The diagram below shows the bootstrapping results of the study. It shows the path coefficients, and p- values of the hypotheses tested in the study

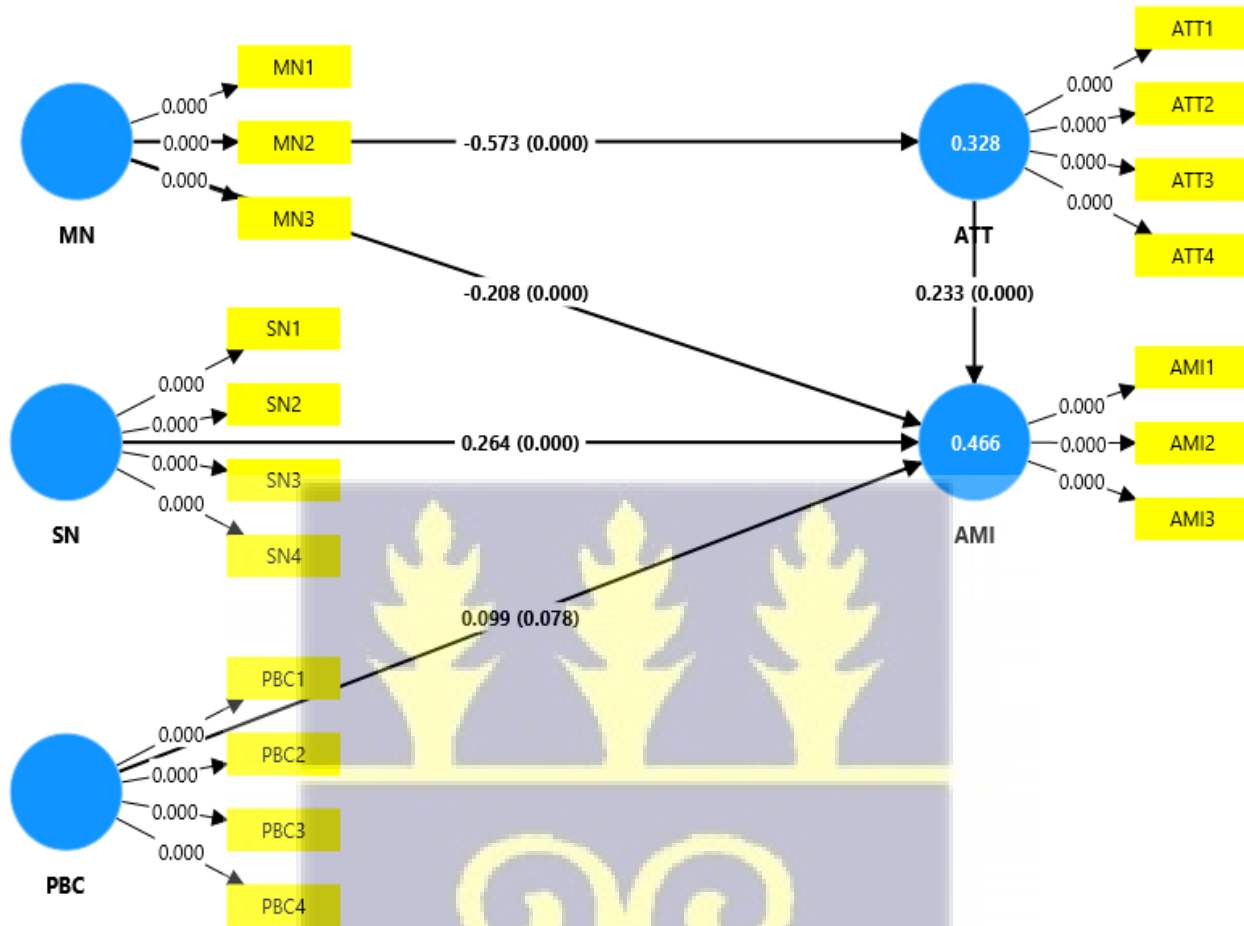


Figure 4.2: Path Diagram, Bootstrapping Result



4.6 Hypothesis Testing

The hypotheses that were tested in the study are presented in this part of the study. The table depicts the path coefficient, T statistics and the p-values that were used in testing the hypotheses of the study.

Table 4.9: Hypotheses Testing

Hypothesis	Hypothesis Path	Coefficient	T Statistics	P- Values	Results
H1	ATT → AMI	0.233	3.904	0.000	Accepted
H2	SN → AMI	0.264	5.533	0.000	Accepted
H3	PBC → AMI	0.099	1.767	0.078	Rejected
H4	MN → ATT	-0.573	14.337	0.000	Accepted
H5	MN → AMI	-0.208	4.930	0.000	Accepted
H6	MN → ATT → AMI	-0.133	3.703	0.000	Accepted

4.7 Discussion of Results

Table 4.9 shows the results of the hypotheses tested in this study. All the hypotheses tested with the exception of H3 are significant at 5% significance level.

4.7.1 Attitude and Asset Misappropriation Intention (H1)

Examining the results of the SEM analysis at 0.05 significant level, attitude was found to be a significant predictor of intention with a p-value of 0.000. As hypothesized, there was a positive and significant relationship between attitude and intention to misappropriate assets. Hypothesis 1 is therefore accepted and we conclude that employees with higher, more favourable attitude toward

asset misappropriation tend to have a higher intention towards misappropriating the assets of their employers. On the other hand, employees with less positive and unfavourable attitude towards asset misappropriation are more likely to refrain from misappropriating the assets of their employers. This finding is consistent with results of prior studies that have found a positive relationship between attitude towards theft and asset misuse on the part of employees and their intention to engage in such misbehaviours (Lin et al., 2022, Korgaonkar et al., 2021, Kelkar & Emilus, 2016, Moorthy et al., 2015, Lin & Chen, 2011, Henle et al., 2010).

4.7.2 Subjective Norms and Asset Misappropriation Intention (H2)

Subjective norms regarding asset misappropriation was found to have a positive and significant effect on intention to engage in asset misappropriation with a p-value of 0.000, confirming hypothesis 2. The confirmed link between employees' subjective norms about asset misappropriation and their intentions to engage in it indicates that these intentions are shaped by the views of others. As an indirect measure, subjective norms capture the influence of friends, family, colleagues, and other important individuals on employees' perspectives toward asset misappropriation. This also suggests that, if significant others pressure an employee to engage in asset misappropriation, or if the employee constantly witnesses others misappropriating assets from the employer and going scot-free, it is more likely that the employee might also engage in asset misappropriation. While peer pressure is often cited as a reason for theft in general such as in cases of shoplifting (Beck & Ajzen, 1991; Tonglet, 2002), it may also play a role in asset misappropriation, as this study demonstrates. This finding aligns with existing research suggesting that employees are more likely to avoid workplace misbehaviour when significant others

discourage them from engaging in such actions. (Lin et al., 2022; Korgaonkar et al., 2021; Kelkar & Emelius, 2016; Nene, 2014; Lin & Chen, 2011; Henle et al., 2010).

4.7.3 Perceived Behavioural Control (PBC) and Asset Misappropriation Intention (H3)

The results indicate an insignificant but positive association between perceived behavioural control and the intention to misappropriate assets, at a 0.05 significance level and a p-value of 0.078. As anticipated, PBC positively correlates with the intention to misappropriate assets but that relationship is insignificant. Hypothesis H3 is therefore rejected, and we conclude while individuals with higher perceived control are somewhat more likely to form intentions to misappropriate assets, this tendency is not statistically robust or conclusive based on the data collected for this study. The weak influence of PBC might indicate that other factors, such as attitudes toward misappropriation or moral norms, play a more dominant role in shaping behavioural intentions in this context. According to Ajzen (1991), PBC reflects an individual's perception of their ability to perform a behaviour, but its impact may vary depending on situational and contextual factors. In workplace scenarios, the importance of PBC might be overshadowed by stronger moral or normative influences, which guide decision-making. In contexts where misappropriation is heavily stigmatized or closely monitored, perceived control may also be less relevant, as individuals may refrain from forming intentions regardless of their perceived ease of engaging in such behaviours.

The findings may also reflect contextual dynamics specific to the workplace. In environments where organizational culture, strict controls, or ethical standards prevail, employees may suppress their intentions to misappropriate assets regardless of their perceived ability to do so. This aligns

with research by Sparks and Shepherd (2002), which emphasizes the moderating role of moral norms and ethical climates in shaping intentions. Therefore, while TPB posits that PBC should influence intention, its role may vary depending on the organizational and social context. This insignificant relationship also raises questions about whether PBC operates indirectly through other variables. For instance, it is possible that PBC's effects on intention are mediated by attitudes or moderated by subjective norms. As suggested by Yazdanpanah and Forouzani (2015), contextual factors such as organizational deterrents or ethical training may suppress the influence of PBC on intentions. In conclusion, a positive but statistically insignificant relationship between PBC and intention to misappropriate assets highlights the complexity of behavioural dynamics in workplace settings.

4.7.4 Moral Norms and Attitude towards Asset Misappropriation (H4)

Moral norms were found to have a significant and negative effect on attitudes toward asset misappropriation ($p = 0.000$), supporting hypothesis 4a. This suggests that employees with strong moral norms are less likely to develop favourable attitudes toward misappropriating their employer's assets. Conversely, those with weaker moral norms are more inclined to justify or favour such behaviour. Many SMEs, constrained by limited resources, lack the capacity to implement proper segregation of duties, often requiring one employee to perform multiple tasks, such as recording sales and banking cash. This overlap creates ethical dilemmas and challenges employees' integrity. Additionally, the absence of corporate codes of conduct in many SMEs further places the burden of ethical decision-making on individual employees, highlighting the critical role of personal morals in shaping attitudes toward theft and asset misuse. To minimize theft and asset abuse, SME owners should foster a culture of honesty and integrity within their

organizations. This finding aligns with prior studies, which emphasize the influence of moral norms on attitudes toward unethical behaviors (Korgaonkar et al., 2021; Cronan & Al-Rafee, 2008). By prioritizing ethical practices and employee integrity, SMEs can reduce instances of asset misappropriation.

4.7.5 Moral Norms and Asset Misappropriation Intention (H5)

As expected, moral norms were found to have a negative and statistically significant relationship with the intention to misappropriate assets, at a significance level of $\alpha = 0.05$, with a p-value of 0.000 (see Table 4.9). Thus, Hypothesis H4 is accepted, leading to the conclusion that employees with strong moral norms are less likely to engage in asset misappropriation. This finding suggests that SMEs could reduce incidents of employee theft and asset misuse by fostering an ethical and moral organizational climate. A workplace environment that emphasizes care, law and order, adherence to rules, and individual responsibility is likely to cultivate a culture that discourages unethical behaviours. Supporting this view, Weber (2003) argues that organizations prioritizing moral and ethical practices can significantly lower instances of employee theft and asset misuse. This finding is also consistent with evidence from large retail businesses in the developed world (Tonglet, 2002; Kelkar & Emilus 2016; Sharma, 2018). Similarly, Cant et al. (2013) have shown that the moral behaviour of an employee in a small business influences their ethical behaviour in the workplace.

4.7.6 Mediation Analysis (H6)

The study delves deeper into the dynamics of asset misappropriation by investigating the mediating role of Attitude in the relationship between Moral Norms and Asset Misappropriation Intentions.

Moral norms, representing an individual's internalized ethical beliefs, are crucial in shaping workplace behaviour. This aspect of the study aims to uncover whether an employee's moral orientation significantly influences their attitudes toward asset misappropriation and, consequently, their intentions to engage in such behaviour. Understanding this relationship is vital as it sheds light on the psychological and ethical mechanisms underpinning fraudulent intentions in organizational settings. The results of this analysis is presented in Table 4.10 below.

Table 4.10: Mediation Analysis

Total Effect(MN→AMI)			Direct Effect(MN→AMI)			Indirect Effect(MN→ATT→AMI)		
Coefficient	T Value	P Value	Coefficient	T Value	P Value	Coefficient	T Value	P value
-0.341	6.640	0.0000	-0.208	4.930	0.000	-0.133	3.703	0.000

The findings presented in Table 4.10 reveal that the total effect of Moral Norms (MN) on Asset Misappropriation Intention (AMI), the direct effect of MN on AMI, and the indirect effect mediated through Attitude (ATT) were all statistically significant at the 5% level. To assess the indirect impact of MN on AMI and identify the type of mediation, the Variance Accounted For (VAF) formula, as recommended by Hair et al. (2016), was applied. This approach has recently gained popularity for testing mediating effects in various studies (Li et al. 2023; Nitzl et al., 2016; Rasoolimanesh et al. 2021). The formula for VAF is given as follows:

VAF = Indirect effect/Total effect. The total effect is determined by the summation of the direct and indirect effects.

As per Hair et al. (2016), the VAF values help determine the type of mediation: a VAF below 20% suggests no mediation, a range between 20% and 80% indicates partial mediation, and values exceeding 80% signify full mediation. The VAF value for the present study: $-0.133/-0.341 = 0.39 \times 100 = 39\%$. The result indicate a partial mediation. This suggests that while moral norms directly influence intentions to misappropriate assets, part of this effect operates through attitudes, making attitudes a key intermediary variable in the relationship. This dynamic aligns with the TPB, which posits that attitudes significantly influence behavioural intentions (Ajzen, 1991). Furthermore, moral norms, as an individual's internalized sense of right and wrong, are integral in shaping attitudes, particularly toward ethically charged behaviours like asset misappropriation. Prior research supports this mediating effect, showing that moral norms significantly influence attitudes, which, in turn, shape intentions. For example, Klockner (2013) and Liu et al. (2019) found in environmental studies that attitudes partially mediate the relationship between moral norms and behaviour. Similarly, workplace ethics studies, such as those by Cronan and Al-Rafee (2007), confirm that moral norms shape attitudes, which influence intentions to engage in unethical actions, while maintaining a direct relationship with intentions.

In conclusion, the relationship between moral norms and intentions to misappropriate assets involves both direct and indirect effects through attitudes. While moral norms independently deter unethical behaviour, attitudes act as a crucial mediator, translating moral beliefs into evaluative judgments that influence intentions. Recognizing this partial mediation highlights the complexity of ethical decision-making and underscores the importance of addressing both moral and attitudinal factors in organizational efforts to combat asset misappropriation.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

Introduction

This chapter presents the main findings of the study, structured into five key sections. It begins with a summary and conclusion of the research, encapsulating the study's primary insights and overall outcomes. The second section discusses the implications of these findings, examining their relevance for theory, practice, and policy. The third section addresses the contributions the study makes to the existing body of knowledge, highlighting its unique insights and value. In the fourth section, the study's limitations are acknowledged, providing a balanced view of the research scope and any constraints encountered. The chapter concludes by offering practical recommendations for stakeholders and proposing avenues for future research aimed at guiding further exploration in this field.

5.1 Summary of Findings

This study explores the behavioural factors influencing asset misappropriation in Ghanaian SMEs, an issue often overlooked in accounting and ethics research. While previous studies have primarily examined organizational factors such as workplace climate, employee satisfaction, and wage inequalities, this research takes a different approach by focusing on individual behaviours using the Extended Theory of Planned Behaviour (ETPB). The study hypothesizes that an employee's

attitudes, social pressures, PBC and moral norms influence their intention to misappropriate assets at work. The PLS-SEM technique was used to test six hypotheses, five of which were supported:

First, attitude toward asset misappropriation emerged as a strong predictor of an employee's intention to engage in such behaviour. Employees who perceive misappropriation as acceptable are more likely to commit fraud, while those with a negative attitude toward it are less likely to engage in misconduct. This aligns with Ajzen's (1991) TPB, which posits that attitudes significantly influence behavioural intentions.

Second, social pressures (subjective norms) from colleagues, friends, and family play a crucial role in shaping an employee's decision to misappropriate assets. If employees perceive that their social circle tolerates or engages in fraudulent behaviour, they are more likely to do the same. This reinforces previous research suggesting that peer influence can normalize unethical conduct in workplace settings (Beck & Ajzen, 1991; Treviño et al., 2006).

Third, PBC which refers to an employee's belief about how easy or difficult it is to misappropriate assets, was found to have an insignificant effect on misappropriation intentions. This suggests that while workplace control measures may deter fraud, they are not the primary factor in shaping fraudulent behaviour. Instead, psychological and social influences play a more significant role.

Fourth, moral norms significantly shape an employee's attitude toward asset misappropriation. Employees with strong ethical values are less likely to rationalize or justify fraudulent behaviour, making moral norms a crucial internal deterrent against workplace fraud.

Fifth, moral norms also directly influence asset misappropriation intentions, meaning that employees with strong ethical principles are inherently less likely to engage in fraudulent

behaviour, regardless of external influences. This highlights the role of personal integrity in fraud prevention.

Finally, attitude mediates the relationship between moral norms and asset misappropriation intentions, indicating that while moral norms directly discourage fraud, they also shape employees' attitudes, which in turn influence their intentions.

The study's findings emphasize the importance of ethical training, corporate culture, and reinforcement of strong moral values in reducing fraudulent behaviour in the workplace. Rather than solely relying on control mechanisms, organizations should focus on cultivating ethical attitudes among employees to mitigate asset misappropriation.

5.2 Conclusion

This study set out to examine the determinants of asset misappropriation within Ghanaian SMEs through the theoretical lens of the Extended Theory of Planned Behaviour (ETPB).

First, in assessing the effectiveness of internal control systems and anti-fraud measures within SMEs, the study concludes that while such mechanisms are essential, their effectiveness is largely contingent on underlying psychological and social dynamics. The statistically insignificant effect of PBC indicates that even strong control systems may not independently deter fraudulent behaviour. This suggests that employees' internal motivations particularly their attitudes, moral beliefs, and social influences play a more decisive role in determining ethical or unethical conduct. Consequently, the traditional reliance on procedural controls in preventing fraud within SMEs is insufficient unless complemented by strategies that actively shape ethical attitudes and moral reasoning among employees.

Second, concerning the effects of attitude, subjective norms, PBC and moral norms on intention, the study finds that employees' attitudes and perceived social pressures are the strongest predictors of asset misappropriation intentions. Employees who hold favourable attitudes toward misappropriation or perceive that influential peers, colleagues, or family members condone such behaviour are significantly more likely to develop fraudulent intentions. Conversely, moral norms defined as internalized ethical standards serve as a strong deterrent against fraud. This finding reinforces the predictive validity of the ETPB, demonstrating that moral and social factors outweigh perceived opportunity (PBC) in influencing unethical behaviour.

Third, the study establishes that moral norms play a critical role in shaping employees' attitudes toward asset misappropriation. Individuals with strong moral values are more likely to form negative attitudes toward fraudulent conduct, perceiving it as morally unacceptable rather than as an opportunity for personal gain. This confirms that moral reasoning operates as a foundational antecedent to attitude formation, influencing how employees cognitively evaluate and rationalize workplace misconduct.

Fourth, regarding the mediating role of attitude between moral norms and asset misappropriation intention, the study concludes that moral norms influence behaviour both directly and indirectly. Employees with strong moral convictions not only resist fraudulent intentions but also develop negative attitudes that further weaken their likelihood of engaging in unethical acts. This mediation effect highlights the psychological pathway through which ethical beliefs are internalized and expressed behaviourally demonstrating that attitude serves as a conduit through which moral reasoning translates into ethical action.

In sum, the study concludes that asset misappropriation within SMEs is not merely a consequence of weak internal controls but rather a reflection of deficiencies within the ethical and moral fabric

of the organization. Effective fraud prevention must therefore extend beyond compliance-based controls to include deliberate efforts to cultivate ethical awareness and moral responsibility among employees. SME leaders should foster a culture of integrity by reinforcing positive social norms, modeling ethical leadership, and integrating values-based ethics training into organizational practice. By strengthening moral norms and shaping employee attitudes toward ethical conduct, organizations can create a more resilient and ethically grounded workforce less susceptible to the pressures and temptations that drive asset misappropriation.

5.3 Implications of Findings

The findings of this study have significant practical implications for SME owners and managers, providing actionable insights into how to mitigate asset misappropriation. The study identified specific attitudes or perceptions (e.g., a belief that misappropriation is easy due to weak controls) that influence employees' fraudulent intentions. Based on these insights, SMEs could implement targeted interventions such as ethics training programs, stronger surveillance mechanisms, and regular audits to deter fraudulent behaviour. Moreover, addressing subjective norms could involve cultivating a workplace culture that explicitly discourages unethical behaviour through peer accountability and leadership modeling ethical behaviour. Strengthening employees' perceived behavioural control against fraud by reinforcing internal controls could also reduce opportunities for misappropriation. These measures would help SMEs, often operating with limited resources, to develop cost-effective strategies to safeguard assets.

At the policy level, the study underscores the need for governments and regulatory bodies to develop frameworks that address fraud vulnerabilities in SMEs. Unlike large corporations, SMEs

in developing economies often lack access to resources for fraud prevention. Policies could include offering subsidies or tax incentives for SMEs that implement robust anti-fraud mechanisms, such as adopting digital accounting systems or providing employee ethics training. The study could also inform the design of industry-specific regulations that promote accountability, such as mandatory audits for SMEs of a certain size. Additionally, policymakers might create public awareness campaigns to promote a culture of ethical business practices, leveraging the findings to emphasize the importance of attitudes and social norms in preventing workplace fraud. Strengthening law enforcement to address fraud cases in SMEs could also deter employees from engaging in misappropriation, recognizing the higher likelihood of impunity in developing economies.

Finally, the use of the TPB in a study of asset misappropriation in SMEs in a developing economy contributes to refining and expanding the application of the theory in workplace deviance. The TPB is a useful tool for practitioners looking to curb asset misappropriation, as well as a valuable framework for scholars examining the causes of this behaviour. In this study, attitudes emerged as the most significant predictor of intentions to misappropriate assets. This suggests that businesses should prioritize addressing the attitudes of employees as a means of controlling this unethical conduct. Entrepreneurs and managers must take into account how workers form the ideas that determine these attitudes. The moral norms factor was found to have a significant influence on attitudes regarding asset misappropriation, as demonstrated by an analysis of the path weights in the structural model. This implies that by instituting programs that improve workers' moral inclinations, companies can lessen the formation of favourable attitudes regarding asset misappropriation. Small and Medium Enterprise owners and managers should endeavour to screen the moral values potential employees during the recruitment process.

5.4 Contributions

This study provides valuable insights into occupational fraud, with a particular focus on asset misappropriation, by examining the key factors that influence employees' intentions to engage in such behaviour in the workplace. Unlike much of the existing research, which overlooks this common type of fraud especially in SMEs this study brings new perspectives to the fraud discourse by empirically examining the ETPB within this context. To the best of the researcher's knowledge, this is one of the first studies to provide empirical support for this theoretical model in understanding occupational fraud, specifically, asset misappropriation.

The findings underscore the importance of moral norms as a predictor of asset misappropriation, adding depth to existing literature on occupational fraud by highlighting that an individual's moral values play a role in influencing their intention to engage in asset misappropriation. By adopting the ETPB framework, this study examines four key factors attitudes, subjective norms, perceived behavioural control, and moral norms that shape employees' intentions to misappropriate assets. Understanding these factors provides organizations with actionable insights. For instance, employers can reduce instances of asset misappropriation by promoting positive attitudes, countering social pressures, strengthening control policies, and implementing training that fosters high moral standards among employees.

By examining asset misappropriation as a volitional, or choice-based, behaviour, this study provides valuable insights for both academics and business managers. Managers, especially those in SMEs, can use these findings to develop tailored strategies that deter asset misappropriation. For example, owners can allocate resources to employee training and implement policies that

prevent, deter, and mitigate asset misappropriation, which can lead to better financial management, improved operational performance, and increased profits. By minimizing asset misappropriation, small business owners can reinvest funds in growth-focused activities, ultimately enhancing business sustainability and profitability.

5.5 Limitations of the Study

As with any study, there are limitations that must be acknowledged. Firstly, given the sensitive nature of asset misappropriation, some respondents may have been influenced by social desirability bias, leading them to give responses that appear socially acceptable, such as indicating no intention to engage in asset misappropriation. However, efforts were made to minimize this effect by reassuring respondents of the confidentiality of their responses, aiming to create a more open and honest reporting environment.

Additionally, this study used a cross-sectional methodology which is characterized by gathering data over a brief period of time. Due to time and resource constraints, data was collected within a short period. According to Sekaran (2003), one drawback of this approach is the difficulty to demonstrate a causes and effects relationships among the study constructs. As is common in social science research, the current study depends on the perceptions of employees of SMEs regarding the factors that could influence them to misappropriate assets at work. However, the responses of employees in the various industries captured in this study may not always accurately reflect reality. There is a clear propensity for the data gathered to show some degree of confidence on the part of the respondents, who may have cognitive and perceptual biases while responding to such surveys.

Moreover, there may be other factors influencing employees to misappropriate assets at work that were not examined in this study. Thus, the findings are not exhaustive regarding the factors that might impact asset misappropriation intentions in SMEs.

The aforementioned limitations have no bearing on the study's results in any manner, yet it is nonetheless advisable to use caution when interpreting its results. In the next part, several suggestions for further research are presented in accordance with major findings and limitations of the study.

5.6 Recommendations for Future Research

Firstly, future research on asset misappropriation should look at factors other than those found in this study in order to further advance our understanding of the phenomenon. For instance, as is the case in this study and other studies that have applied the TPB to unethical behaviours (Beck & Ajzen, 1991; Tonglet, 2002), moral norms is included as a predictor of the said unethical behaviour. Another relevant construct is moral disengagement, defined as "the act of disabling moral self-sanctions" (Bandura, 1990). Individuals who effectively engage in moral disengagement may show increased intentions to misappropriate assets in the workplace.

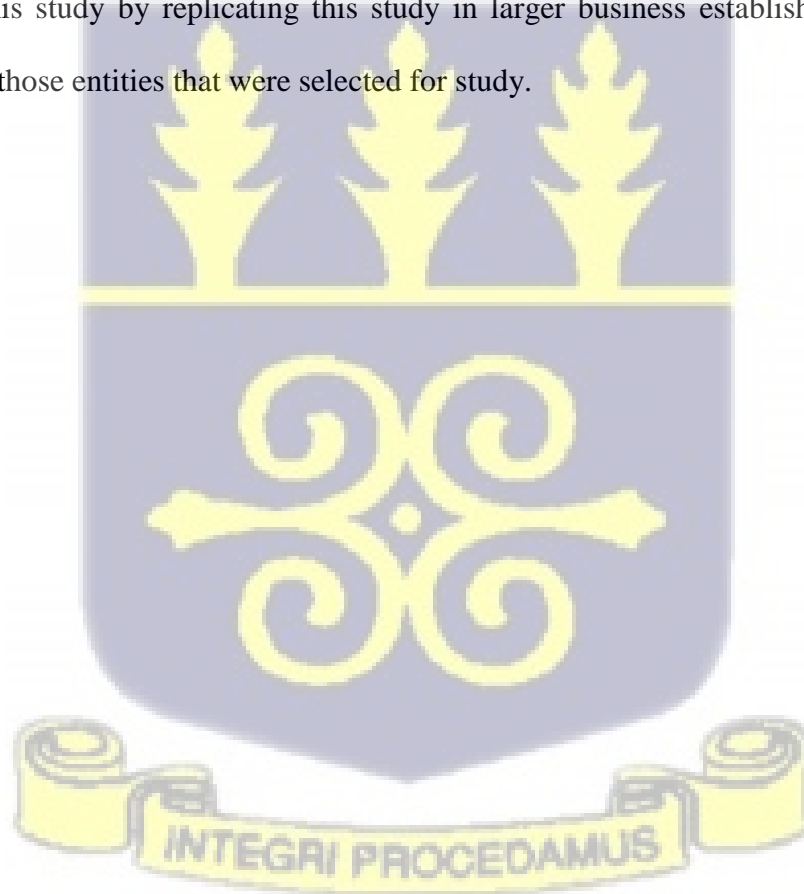
Secondly, researchers might investigate asset misappropriation utilizing data from workers, managers, and corporate security officers. This could broaden our knowledge of asset misappropriation and provide insight into additional factors that can influence it.

Thirdly, future research needs to examine how norms towards unethical work behaviours develop (Greenberg & Scott, 1996). Researchers may consult the literature on socialization, which posits that organizational standards are frequently imbibed throughout the recruitment process and are

then reinforced through additional social contacts and behavioural observation. Therefore, the company's position against asset misappropriation might be communicated through the hiring process and new employee orientation programs.

Fourthly, other approaches to data collection for this study that enable participants to express opinions about what constitutes asset misappropriation may be used in further research. For example, focus groups and in-depth interviews might be conducted to uncover fresh perspectives on the factors that lead people to pilfer and misuse company property.

Finally, in order to make it easy to generalize the results of this study, future studies could confirm the results of this study by replicating this study in larger business establishments with more employees than those entities that were selected for study.



REFERENCES

- Abbot, A. (2004). *Methods of Discovery: Heuristics for the Social Sciences*. New York, NY: W.W. Norton.
- Abdullahi, R., & Mansor, N. (2018). Fraud prevention initiatives in the Nigerian public sector: understanding the relationship of fraud incidences and the elements of fraud triangle theory. *Journal of Financial Crime*, 25(2), 527-544.
- Abor, J., & Quartey, P. (2010). Issues in SMEs in Ghana and South Africa International Research. *Journal of Finance and Economics*, (39), 218-228.
- Ajzen, I. (1985). From intentions to actions: a theory of planned behavior, in Kuhl, J. and Beckmann, J. (Eds), *Action-control: From Cognition to Behavior*, Springer, Heidelberg, pp. 11-39
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211
- Ajzen, I.: 2002, 'Perceived Behavioral Control, Self-Efficacy, Locus of Control, and the Theory of Planned Behavior', *Journal of Applied Social Psychology* 32, 665– 683
- Ajzen, I (2011) The theory of planned behaviour: Reactions and reflections, *Psychology & Health*, 26:9, 1113-1127, DOI: 10.1080/08870446.2011.613995
- Ajzen, I., & Sheikh, S. (2013). Action versus inaction: Anticipated affect in the theory of planned behavior. *Journal of Applied Social Psychology*, 43 (1), 155–162.

Ajzen, I. (2020). The Theory of Planned Behavior: A Bibliography. <https://people.umass.edu/aizen/tpbrefs.html>

Ajzen, I., & Driver, B. L. (1992). Application of the theory of planned behavior to leisure choice. *Journal of Leisure Research*, 24(3), 207-24.

Ajzen, I., & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Prentice-Hall, Englewood Cliffs, NJ.

Ajzen, I. (1988). *Attitudes, personality, and behavior*. Chicago: Dorsey Press.

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action-control: From cognition to behavior* (pp. 11-39). Heidelberg: Springer.

Ajzen, I. (2002a). Perceived Behavioral Control, Self-Efficacy, Locus of Control, and the Theory of Planned Behavior. *Journal of Applied Social Psychology*, 32(4), 665–683

Alazzabi, W. Y. E., Mustafa, H., & Karage, A. I. (2023). Risk management, top management support, internal audit activities, and fraud mitigation. *Journal of Financial Crime*, 30(2), 569-582, doi: 10.1108/JFC-11-2019-0147.

Albrecht, W. S., Albrecht, C. O., Albrecht, C. C., & Zimbelman, M. F. (2019). *Fraud Examination* (6th Edition). Cengage Learning: Boston

Aleassa, H., Pearson, J. M., & McClurg, S. (2011). Investigating software piracy in Jordan: An extension of the theory of reasoned action. *Journal of Business Ethics*, 9, 663–676. doi:10.1007/s10551-010-0645-4

Alleyne, P., Mugumbate, R., & Malthouse, M. (2023). Understanding asset misappropriation in small and medium enterprises in Barbados: A test of the fraud triangle. *Journal of Accounting in Emerging Economies*, 13(3), 553-575.

Andersson, S., & Heywood, P. M. (2009). The Politics of Perception: Use and Abuse of Transparency International's Approach to Measuring Corruption. *Political Studies*, 57, 746-767.

Ashman, I. (2007). An investigation of the British organizational commitment scale. *Management Research News*, 30(1), 5-24.

Association of Certified Fraud Examiners (2010). International fraud examiners manual. www.acfe.com.

Association of Certified Fraud Examiners. (2014). Report to the nations on occupational fraud and abuse. ACFE, Austin, TX, 2014 global fraud study.

Association of Certified Fraud Examiners (2018). Global Fraud Survey. Report to the nations on occupational fraud and abuse. Asia-Pacific Edition. Pp. 1-28.

Association of Certified Fraud Examiners (2020). How is occupational fraud committed? Occupational fraud 2020: A Report to the Nations.

Association of Certified Fraud Examiners (2022). How is occupational fraud committed? Occupational fraud 2022: A Report to the Nations.

American Institute of Certified Public Accountants (2002). Consideration of fraud in a financial statement audit. Statement on Auditing Standards No. 99. New York: AICPA.

Andoh, C., Quaye, D. and Akomea-Frimpong, I. (2018), “Impact of fraud on Ghanaian SMEs and coping mechanisms”, *Journal of Financial Crime*, Vol. 25 No. 2, pp. 400-418.

Ariatin, A., Dhewanto, W., & Yudha, O. (2024). Entrepreneurial Muslim leadership in Islamic cooperative business unit. *Journal of Islamic Accounting and Business Research*, 15(3), 499-518, doi: 10.1108/JIABR-04-2022-0100.

Aronson, R. H. (1977). Conflict of Interest. *Washington Law Review*, 52, 807 <https://digitalcommons.law.uw.edu/faculty-articles/394>.

Asmah, A. E., Atuilik, W. A., & Ofori, D. (2019). Antecedents and consequences of staff-related fraud in the Ghanaian banking industry. *Journal of Financial Crime*, 26(3), 669–682.

Awang, Y., Abdul Rahman, A. R., & Ismail, S. (2019). The influences of attitude, subjective norm and adherence to Islamic professional ethics on fraud intention in financial reporting. *Journal of Islamic Accounting and Business Research*, 10(5), 710-725.

Banks and Special deposit institutions fraud report (2020). Retrieved from www.bog.gov.gh.

Banks and Special deposit institutions fraud report (2021). Retrieved from www.bog.gov.gh.

Babbie, E. (2004). *The Practice of Social Research* (10th Ed.). Belmont, CA: Thomson/Wadsworth.

Bamfield, J (2004), “Shrinkage, shoplifting, and the cost of retail crime in Europe: a cross-sectional analysis of major retailers in 16 European countries”, *International Journal of Retail & Distribution Management*, Vol. 32 (5), pp. 235-41.

Bailey A. A (2006) Retail employee theft: a theory of planned behaviour perspective. *International Journal of Retail & Distribution Management* 34(11):802–816.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. Bandura, A. (1997). *Self-efficacy: The exercise of control*, New York, NY: Freeman

Bandura, A.: 1990, ‘Selective Activation and Disengagement of Moral Control’, *Journal of Social Issues* vol. (46), 27–46

Beck, L & Ajzen, I (1991), “Predicting dishonest actions using the theory of planned behavior”, *Journal of Research in Personality*, Vol. 25 (3), pp. 285-301.

Bennett, R. J. and S. L. Robinson: (2000), ‘The Development of a Measure of Workplace Deviance’, *Journal of Applied Psychology* vol. 85, pp. 349–360

Binz, C., Patel, V. K., & Wanzenried, G. (2014). Journal of Family Business Strategy A comparative study of CB-SEM and PLS-SEM for theory development in family firm research. *Journal of Family Business Strategy*, 5(1), 116–128.

Black, E. L., Burton, F. G., and Cieslewicz, J. K. (2021). Improving ethics: extending the theory of planned behavior to include moral disengagement. *Journal of Business Ethics*.

Boateng, R. (2016). *Research made easy*. CreateSpace Independent Publishing Platform.

Botetzagias, I., Dima, A.-F., and Malesios, C. (2015). Extending the theory of planned behavior in the context of recycling: The role of moral norms and of demographic predictors. *Resour. Conserv. Recycl.* 95, 58–67. doi: 10.1016/j.resconrec.2014.12.004

Button, M., Lewis, C., & Tapley, J. (2014). Not a victimless crime: The impact of fraud on individual victims and their families. *Security Journal*, 27, 36-54. doi:10.1057/sj.2012.11

Berkhoff, C. (1997) *Communities of Commitment: The Heart of Learning Organizations*, *Organizational Dynamics*, vol.22 (2): pp.4–23.

Bressler, M.S. and Bressler, L.A. (2007), “A model for prevention and detection of criminal activity impacting small business”, *The Entrepreneurial Executive*, Vol. 12, p. 23.

Bozkurt, S., & Tun, C. (2020). The role of ethical leadership in mitigating the fraud triangle: A theoretical model. *Journal of Financial Crime*, 28(1), 233–245.

Cant, M. C., Wiid, J. A., & Kallier, S. M. (2013). Small business owners’ perceptions of moral behaviour and employee theft in the small business sector of Nigeria. *Gender and Behaviour*, 11(2), 5775–5787

Caillier, J. G. (2015). Towards a better understanding of public service motivation and mission valence in public agencies. *Public Management Review*, vol. 17(9), pp.1217–1236.

Carland, J. W., Carland, J. C., & Carland, J. W. (2001). Fraud: A concomitant cause of small business failure. *The Entrepreneurial Executive*, 6, 73–108

Carpenter, T. D., and Reimers, J. L. (2005). Unethical and fraudulent financial reporting: applying the theory of planned behavior. *Journal of Business Ethics*, vol. (60), pp.115–129. doi: 10.1007/s10551-004-7370-9

Carpenter, C. (2003) “SME Finance in Nigeria”. Paper presented to the Roundtable on “Making Small Business Finance Profitable in Nigeria”. Access at <http://www.yppforum.org/newsCarpenter>.

Chatzisarantis, N. L. D., Hagger, M. S., Smith, B., & Phoenix, C. (2004). The influences of continuation intentions on execution of social behaviour within the theory of planned behaviour.

The British Journal of Social Psychology, vol. 43, pp.551-583

Chen, M., & Lu, S. (2022). Why do employees steal? Applying the Theory of Planned Behavior to employee theft intention in the retail industry. *Frontiers in Psychology*, *13*, 893568.

Cheung M.F & To W.M (2016). Service co-creation in social media: an extension of the theory of planned behaviour. *Computers in Human Behavior*, vol. 65 pp. 260-266.

Cochran, W. G. (1977). Sampling techniques. (3rd Ed). John Wiley and Sons, Inc.

Cohen, L and Manion, L (1980) Research Methods in Education, London: Groom Helm Ltd.

Cohen, J., Ding, Y., Lesage, C., & Stolowy, H. (2012). *Corporate fraud and managers' behavior: Evidence from the press* (pp. 271-315). Springer Netherlands.

Commerce Commission (2018) How to recognize and deter bid rigging. Guidelines for Procurers. Te Kamihana Tauhokohoko, New Zealand

Creswell, J. W. (2013). Educational research: Planning, conducting, and evaluating. W. Ross MacDonald School Resource Services Library

Creswell, J. W. (1994). Research design: Qualitative and Quantitative approaches.

Creswell, J. W. (1994). *Research design: Qualitative and Quantitative approaches*.

Cohen, L and Manion, L (1980) *Research Methods in Education*, London: Groom Helm Ltd.

Cox, D., Cox, A. D., & Moschis, G. P. (1990). When consumer behavior goes bad: An investigation of adolescent shoplifting. *Journal of Consumer Research*, vol.17 (2), pp.149–159.

Dilmeri, A., King, T., & Dennis, C. (2017). Toward a framework for identifying attitudes and intentions to music acquisition from legal and illegal channels. *Psychology & Marketing*, vol. 34(4), pp.428–447.

Dani R.M, Mansor, N & Noor N.R.A.M (2022). Developing a Survey Instrument to Study Asset Misappropriation in the Malaysian Public Sector. *International Journal of Academic Research in Accounting Finance and Management Sciences*, vol.12 (2), pp. 106–131

Ding, S., & Wu, Z. (2014). Family ownership and corporate misconduct in U.S. small firms. *Journal of Business Ethics*, 123, 183-195. doi:10.1007/s10551-013-1812-1

Dimperi, A, King T, Dennis C (2017) Toward a Framework for Identifying Attitudes and Intentions to Music Acquisition from Legal and Illegal Channels. *Psychology & Marketing*, Vol. 34(4): 428–44.

Dorminey, J., Fleming, A. S., Kranacher, M. J., & Riley, R. A. (2012). The evolution of fraud theory. *Issues in Accounting Education*, 27(2), 555–579

Donkor J, Donkor J.N.A, Kankam-Kwarteng C (2017) Innovative capability, strategic goals and financial performance of SMEs in Ghana. *Asia Pacific Journal of Innovation and Entrepreneurship* Vol. 12 No. 2, 2018

Ekpeyong, D.B. and Nyong, M.O. (1992) “Small and Medium Scale Enterprises Development in Nigeria”. Seminar Paper on Economic Policy Research for Policy Design and Management in Nigeria, NCEMA.

Egbuogu, (2003) What Small Business Entrepreneurs Expect From Local Credit Agencies and International Business Facilitators”. Paper presented at “Business America”. A Forum organized by the US Commercial Consulate, Lagos, Nigeria, March 3, pp. 1 – 10.

Fantaye, D.K (2004) Fighting Corruption and Embezzlement in Third World Countries. *The Journal of Criminal Law*. Vol 68(2) pp. 170-176.

Fishbein, M & Ajzen, I (1975), *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*, Addison-Wesley, Reading, MA.

Fornell, C., & Larcker, F. D. (1981). Structural Equation Models with Unobservable Variables and Measurement Error. *Algebra and Statistics*, Vol 18(3), pp. 382–388.

Forney, J. C., & Cruetsinger, C. A. (2001). Juvenile delinquents' perceptions of shoplifting motives: The influence of socialization, age, and gender. *Journal of Family and Consumer Sciences*, vol.93 (1), pp. 31–36.

Final Draft, National Micro, Small and Medium Enterprises (MSME) Policy (2019). Ministry of Trade and Industry, Ghana.

Free, C., & Murphy, P. (2015). The ties that bind: the decision to co-offend in fraud”. *Contemporary Accounting Research*, 32(1), 18–54

Goode, S., and Lacey, D (2015) Revisiting Employee Fraud: Gender, Investigation outcomes and offender motivation. *Journal of financial crime*, Vol 22(4) pp. 447-467

Goldstein, D. (2015). Occupational fraud: Misappropriation of assets by an employee. *Journal of the International Academy for Case Studies*, 21, 81-86. Retrieved from <http://www.alliedacademies.org/>

Glogowska, M. (2011). Paradigms, pragmatism and possibilities: Mixed-methods research in speech and language therapy. *International Journal of Language and Communication Disorders*, 46(3), 251–260. <http://doi.org/10.3109/13682822.2010.507614>

Geisser, S. (1974) A predictive approach to the random effects model, *Biometrika*, Vol. 61(1), pp. 101-107

García-Carbonell, N., Martín-Alcázar, F., & Sánchez-Gardey, G. (2015). Determinants of top management's capability to identify core employees: *Business Research Quarterly*. Vol. 18(2), pp. 69-80

Gottschalk P. (2010) Categories of financial crime. *Journal of financial crime*. Vol. 17(4) pp. 441-458. Enyi, E. P. (2019). Forensic Accounting Investigations: A Scientific Deductive Approach. *Forensic Accounting Research Developments*, Vol. 9(1) pp 92-118.

Goh, E., & Kong, S. (2018). Theft in the hotel workplace: Exploring frontline employees' perceptions towards hotel employee theft. *Tourism and Hospitality Research*, 18(4), pp. 442–455. doi:10.1177/1467358416683770

Gstaettner A.M, Rodger K & Lee D. (2017). Visitor perspectives of risk management in a natural tourism setting: an application of the theory of planned behaviour. *Journal of Outdoor Recreation and Tourism* vol.19:pp. 1-10.

Green G.S (1993) White-Collar Crime and the Study of Embezzlement. *The Annals of the American Academy of Political and Social Sciences*. Vol. 525 pp. 95-106.

Greenberg, J. (1997). Managing the social determinants of employee theft. In R. Giacalone & J. Greenberg (Eds.), *Antisocial behavior in organizations* (pp. 85–108). Thousand Oaks, CA: Sage.

Greenberg, J.: 2002, 'Who Stole the Money and When? Individual and Situational Determinants of Employee Theft', *Organizational Behavior and Human Decision Processes* vol. 89, pp. 985–1003

Greenberg, J. and K. S. Scott: 1996, 'Why do Workers Bite the Hands that Feed Them? Employee Theft as a Social Exchange Process', in B. M. Staw and L. L. Cummings (eds.), *Research in Organizational Behavior*, Vol. 18 (JAI Press, Greenwich, CT), pp. 111–156

GSS, Integrated Business Establishment Survey, Regional Spatial Business Report, *Ghana Statistical Service, Accra, Ghana*, 2016.

Hair, Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *The Journal of Marketing Theory and Practice*, Vol 19(2), 139–152.

Hair, J.F.; Risher, J.J.; Sarstedt, M.; Ringle, C.M (2019) When to use and how to report the results of PLS-SEM. *European Business Review*, Vol.31, pp. 2–24.

Hair, J.F., Mathews, L.M., Mathews, R.L, Sarstedt, M (2017) PLS-SEM or CB-SEM: Updated Guidelines on Which Method to Use. *International Journal of Multivariate Data Analysis*, Vol. 1(2) pp. 107-123

Hair, J. F., Sarstedt, M., Matthews, L. M., and Ringle, C. M. (2016). Identifying and treating unobserved heterogeneity with FIMIX-PLS: part I-method. *Eur. Bus. Rev.* 28, 63–76. doi: 10.1108/EBR-09-2015-0094

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R*. Springer.

Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2017c) *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 2nd Ed., SAGE, Thousand Oaks, CA.

Hair, J. F. Sarstedt, M., Hopkins, L., & Kuppelwieser, G. V. (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review*, 26(2), 106-121.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd Ed.). Sage

Hair, J.F, Howard, M.C, Nitzl, C (2020) Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, Vol. 108, pp. 101-110.

Hair, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2018). *Advanced issues in partial least squares structural equation modeling (PLS-SEM)*. Sage.

Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414–43

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2013). *A Primer on Partial Least Squares Structural Equation Modeling*. Sage, Thousand Oaks.

Haron, H., Mat Nor, F., Johari, F., Misbah, H. and Shafii, Z. (2023), “Factors influencing the behavioural intention to accept benefit donor concept among stakeholders of Waqf”, *Journal of Islamic Accounting and Business Research*, Vol. 14 No. 8, pp. 1344-1360, doi: 10.1108/JIABR-06-2022-0146.

Henle, C.A, Reeve, C.L & Pitts, V.E (2010) Stealing Time at Work: Attitudes, Social Pressure, and Perceived Control as Predictors of Time Theft. *Journal of Business Ethics* vol. 94: pp.53–67 DOI 10.1007/s10551-009-0249-z

Henseler, J., Ringle, C.M. and Sarstedt, M. (2015) ‘A new criterion for assessing discriminant validity in variance-based structural equation modeling’, *Journal of the Academy of Marketing Science*, Vol. 43(1), pp.115–135.

Henseler, J., & Ringle, C. M. (2009). The Use of Partial Least Squares Path Modelling in International Marketing. *International Journal of Research in Marketing*, Vol. 9(4), pp. 319–323.

Henseler, J., Ringle, C.M. and Sinkovics, R.R. (2009), “The use of partial least squares path modeling in international marketing”, in Sinkovics, R.R. and Ghauri, P.N. (Eds) *Advances in International Marketing*, Emerald, Bingley, pp. 277-320.

Hess, M. F., & Cottrell, J. H. Jr. (2016). Fraud risk management: A small business perspective. *Business Horizon*, 59(1), 13–18

Hight, J. J. (2015). Limiting Leukophobia: Looking Beyond Lockup. Debunking the Strategy of Turning White Collars Orange. Retrieved July 7, 2020 from https://works.bepress.com/jared_hight/1/

Houdek, P. (2020). Fraud and understanding the moral mind: Need for implementation of organizational characteristics into behavioral ethics. *Science and Engineering Ethics*, 26(2), 691-707.

International Standards on Auditing 240: The Auditor's responsibility relating to fraud in an audit of financial statements.

Jackson, K. R., Holland, D. V., Albrecht, C., & Woolstenhulme, D. R. (2010). Fraud isn't just for big business: Understanding the drivers, consequences, and prevention of fraud in small business. *The Journal of International Management Studies*, 5(1), 160–164

Jackson R.B , Le Quéré C , Andrew R.M , Canadell J.G , Korsbakken J.I , Z Liu Z , Peters G.P, and Zheng B (2018) Global energy growth is outpacing decarbonization. *Environmental Research Letters*

Jöreskog, K. G., & Wold, H. (1982). The ML and PLS techniques for modeling with latent variables: Historical and comparative aspects. In H. Wold & K. G. Jöreskog (Eds.), *Systems under indirect observation, part I* (pp. 263–270). North-Holland

Jöreskog, Karl G. (1973), "A General Method for Estimating a Linear Structural Equation System," in *Structural Equation Models in the Social Sciences*, Arthur S. Goldberger and Otis Dudley Duncan, eds., New York: Seminar Press, 255–284.

Jory, S.R & Perry, M.J (2011) Ponzi Schemes: A Critical Analysis. ISA. (2009).

Kayanula, D. and P. Quartey, 2000. "The Policy Environment for Promoting Small and Medium-Sized Enterprises in Ghana and Malawi", Finance and Development Research Programme, Working Paper Series, Paper No 15, IDPM, University of Manchester

Korgaonkar P, Becerra E.P, Mangleburg T, Bilgihan A. (2021). Retail employee theft: When retail security alone is not enough. *Psychology & Marketing*, 1–14. <https://doi.org/10.1002/mar.21460>

Kaushik, V and Walsh, C.A (2019) Pragmatism as a research paradigm and its Implications for Social Work Research, *Social Sciences*, Vol 8(9).

Kelkar M.M & Emilus Y. (2016). Applying the theory of planned behaviour to the problem of employee theft in the retail industry.

Khaldi, K (2017) Quantitative, Qualitative or Mixed Research: Which Paradigm to Use? *Journal of Educational and Social Research*, Vol. 7(2) pp. 15.

Klöckner, C. A. (2013). A comprehensive model of the psychology of environmental behaviour— A meta-analysis. *Glob. Environ. Change* 23, 1028–1038. doi: 10.1016/j.gloenvcha.2013.05.014

Kumar, S (2018) Understanding different issues of Unit of Analysis in a Business Research. *Journal of General Management Research*, Vol. 5(2) pp. 70-82.

Kock, N. (2014). Advanced mediating effects tests, multi-group analyses, and measurement model assessments in PLS-based SEM. *International Journal of E-Collaboration*, Vol 10(3), pp. 1-13.

Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration*, 11(4), 1-10

Kock, N. (2020a). WarpPLS User Manual: Version 7.0. Laredo, TX: ScriptWarp Systems.

Koomson, T.A.A, Owusu, G.M.Y , Bekoe, R.A & Oquaye, M (2020) Determinants of asset misappropriation at the workplace: the moderating role of perceived strength of internal controls.

Journal of Financial Crime. DOI 10.1108/JFC-04-2020-0067

Kennedy, J. P. (2014) ‘A View from the Top: A View from the Top: Managers’ Perspectives on the Problem of Employee Theft in Small Businesses’, p. 350. Available at: <https://etd.ohiolink.edu/>.

Kennedy, J. P. (2018). Asset misappropriation in small businesses. *Journal of Financial Crime*, 25(2), 369–383. Doi: <https://doi.org/10.1108/JFC-01-2017-004>

Kennedy, J. (2017). Functional redundancy as a response to employee theft within small businesses. *Security Journal*, 30, 162–183. <https://doi.org/10.1057/sj.2015.37>

Kim H, Lee, J.H, Na S.H (2017) Predictor-Estimator using Multilevel Task Learning with Stack Propagation for Neural Quality Estimation. Proceedings of the Conference on Machine Translation (WMT), Volume 2

Kulas, J.T, McInnerney, J.E, DeMuth, R.F & Victoria J (2007) Employee Satisfaction and Theft: Testing Climate Perceptions as a Mediator, *The Journal of Psychology*, 141:4, 389-402, DOI: 10.3200/JRLP.141.4.389-402

Knechel, W. R., & Mintchik, N. (2022). Do personal beliefs and values affect an individual’s “fraud tolerance”? Evidence from the World Values Survey. *Journal of Business Ethics*, 1-27.

KPMG Forensic (2013), Fraud Survey 2013, *KPMG International, Amsterdam*.

Kramer, B. (2015), “Trust, but verify: fraud in small businesses”, *Journal of Small Business and Enterprise Development*, Vol. 22 No. 1, pp. 4-20, doi: [10.1108/JSBED-08-2012-0097](https://doi.org/10.1108/JSBED-08-2012-0097).

Kreie, J. and P. Cronan: (1999) How Men and Women View Ethics, *Communications of the ACM* vol.41 (9), pp.70–76

Law, M., & Kusant, R. (2014). An exploration of small business restaurant knowledge and skills to prevent fraud. *Journal of Finance and business research*

Lemma, T. T. (2015). Corruption, debt financing and corporate ownership. *Journal of Economic Studies*, 42(3), 433-461.

Li Y, Bhutto MY, Sun C and Mehdi SM (2023) Do information publicity and moral norms trigger waste-sorting intention among households? A sequential mediation analysis. *Front. Psychol.* 14:1193411.

Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2011), Paradigmatic controversies, contradictions, and emerging confluences, revisited. Denzin HK, Lincoln YS. *Handbook of qualitative research*. USA: SAGE Publications, Inc.

Linsley, P. M., & Lawrence, M. J. (2007). Risk reporting by the largest UK companies: Readability and lack of obfuscation. *Accounting, Auditing & Accountability Journal* 20, 620–27.

Liu, M. T., Liu, Y., and Mo, Z. (2020). Moral norm is the key: An extension of the theory of planned behaviour (TPB) on Chinese consumers' green purchase intention. *Asia Pacific J. Market. Logist.* 32, 1823–1841. doi: 10.1108/APJML-05-2019-0285

Lohmöller, J.-B. (1989), *Latent Variable Path Modeling with Partial Least Squares*, Physica, Heidelberg.

Lin B, Huang J, Liao Y, Liu S and Zhou H (2022) Why do employees commit fraud? Theory, measurement, and validation. *Frontiers in Psychology.* 13:1026519. doi: 10.3389/fpsyg.2022.1026519

Lindgren J. (1993). The Theory, History and Practice of the Bribery-Extortion Distinction. *University of Pennsylvania Law Review*. Volume 141, pp 1695-1740.

Le, T. T. H., & Tran, M. D. (2018). The effect of internal control on asset misappropriation : The case of Vietnam. *Business and Economic Horizons*, vol. 14(4), 941–953.

Lee C, Chiang I, Hwang F, Chi L & Lin H. 2016. Using the theory of planned behaviour to predict pregnant women's intention to engage in regular exercise. *Midwifery* vol. 42 pp.80-86.

Lee, R. M.: 1993, *Doing Research on Sensitive Topics* (Sage Publications, London)

Leonard, L. N. K., & Cronan, P. T. (2005). Attitude toward ethical behavior in computer use: A shifting model. *Industrial Management & Data Systems*, vol.105 (9), pp.1150–1171

Lin, C. S & Chen, C.F (2011) Application of Theory of Planned Behavior on the Study of Workplace Dishonesty. 2010 International Conference on Economics, Business and Management IPEDR vol.2

Magda, S, Haryono U, & Rahima, P (2019) Fraud star drives to asset misappropriation moderated by internal controls. *Journal of Southwest Jiaotong University* Vol. 54 (4)

Mark, S., Philip, L., & Adrian, T. (2009). *Research methods for business students*. Harlow: Prentice Hall

Macailao M.C (2020) Raising the red flags: The concept and indicators of occupational fraud. *Journal of critical reviews*. Vol 7(11), pg 26-29.

Mathoko, J., Mathoko, F., & Mathoko, P (2007) *Academic Proposal Writing*. Nakuru, Kenya:

Mayhew, B. & Murphy, P. (2014), “The impact of authority on reporting behaviour, rationalisation and affect”, *Contemporary Accounting Research*, Vol. 31 No. 2, pp. 420

Moh, T, Yustin, N. F, Moh. A’la , & Mahmud, I (2020) Potential Use of Assets in Small Business Restaurants in Indonesia. *International Colloquium on Forensics Accounting and Governance (ICFAG)* Vol. 1 (1)

McMillan, B. and Conner, M. (2003), “Applying an extended version of the theory of planned behavior to illicit drug use among students”, *Journal of Applied Social Psychology*, Vol. 33(8), pp. 1662-83.

Mohd Razmin, M.A.R., Mohamad, A. and Zakaria, M. (2024), "Adopting fraud diamond theory to predict factors of asset misappropriation fraud among police officers", *Journal of Financial Crime*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/JFC-11-2023-0292>

Moorthy M.K, A. Seetharaman, N. Jaffar & Y. P. Foong (2015) Employee Perceptions of Workplace Theft Behavior: A Study Among Supermarket Retail Employees in Malaysia. *Ethics & Behavior*, vol. 25(1), pp. 61-85, DOI: 10.1080/10508422.2014.917416.

Moore, D.A & Loewenstein, G (2004) Self-Interest, Automaticity, and the Psychology of Conflict of Interest. *Social Justice Research*, Vol. 17(2) pp. 189-202

Morgan, W. B., Nelson, M.J., King, E. B., & Mancini, V. S. (2018). Reactions to men’s and women’s counterproductive work behavior. *Equality, Diversity, and Inclusion: An International Journal*, 37, 582-599. doi:10.1108/EDI-08-2017-0161

Mustafa, S. T., & Youssef, N. B. (2010). Audit committee financial expertise and misappropriation of assets. *Managerial Auditing Journal*.

Mustafa Bakri, H. H., Mohamed, N., & Said, J. (2017). Mitigating asset misappropriation through integrity and fraud risk elements: Evidence emerging economies. *Journal of Financial Crime*, 24(2), 242-255.

Mustapa, I. R., & Mahmud, M. (2023). Application of the Theory of Planned Behavior in understanding asset misappropriation: A study of Malaysia's public sector. *Journal of Financial Crime*, *30*(4), 1125–1141.

Murphy, P. R., & Dacin, M. T. (2011). Psychological pathways to fraud: Understanding and preventing fraud in organizations. *Journal of Business Ethics*, 101(4), 601–618.

Nabec, L., Pras, B., & Laurent, G. (2016). Temporary brand–retailer alliance model: The routes to purchase intentions for selective brands and mass retailers. *Journal of Marketing Management*, vol.32, pp.595–627. doi:10.1080/0267257X.2015.1111923

Neneh B.N (2017) Applying the theory of planned behaviour to the problem of employee theft in small businesses. *Journal of Contemporary Management* Volume 14

Nguyen, P.M.B & Truong, G.N.T (2022) Employee Theft Behavior: A Case Study of Five-Star Hotels in Vietnam. *International Journal of Asian Business and Information Management* Vol. 12

(3)

Nia, E.L & Said, J (2015) Assessing Fraud Risk Factors of Assets Misappropriation: Evidences from Iranian Banks. *Procedia Economics and Finance*, pp 31 pp. 919 – 924

Nigrini, M. J. (2019). The patterns of the numbers used in occupational fraud schemes. *Managerial Auditing Journal*, vol.34(5), pp.602–622

Nigrini, Mark J. (2020) *Forensic Analytics: Methods and Techniques for Forensic Accounting Investigations*, John Wiley & Sons, Incorporated, 2020.

Nitzl, C., Roldan, J. L., and Cepeda, G. (2016). Mediation analysis in partial least squares path modeling. *Indus. Manag. Data Syst.* 116, 1849–1864. doi: 10.1108/IMDS-07-2015-0302

Nielsen L & McGregor L.T.S. (2013). Consumer morality and moral norms. *International Journal of Consumer Studies*, vol. 37 (5):pp. 473-480.

O'Brien, R. M. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality and Quantity*, Vol, 41(5), 673–690.

O'Brien, K. E., Minjock, R. M., Colarelli, S. M., & Yang, C. (2018). Kinship ties and employee theft perceptions in family-owned businesses. *European Management Journal*, 36(3), 421–430

Olson, J. and M. Zanna: (1993) Attitudes and Attitude Change, *Annual Review of Psychology*, vol.44, pp. 117–154.

Ocloo, C.E, Akaba S, Worwui-Brown (2014) Globalization and Competitiveness: Challenges of Small and Medium Enterprises (SMEs) in Accra. *Ghana International Journal of Business and Social Science* Vol. 5 No. 4 [Special Issue.

Omidi F, Hajikhani B, Kazemi SN, Tajbakhsh A, Riazi S, Mirsaeidi M, Ansari A, Ghanbari Boroujeni M, Khalili F, Hadadi S and Nasiri MJ (2021) COVID-19 and Cardiomyopathy: A Systematic Review. *Frontiers in cardiovascular medicine*

Otchere, O. A. S., Owusu, G. M. Y., & Bekoe, R. A (2023). Determinants of Whistle Blowing Intentions of Accountants: A Middle Range Theoretical Perspective. *Journal of Financial Crime*, 30(5), 1162-1181.

Osei, B., Baah-Nuakoh, A., Tutu, K. and Sowa, N.K. (1993), "Impact of structural adjustment on small scale in Ghana", in Helmsing, A.H.J. and Kolstee, T. (Eds), *Small Enterprises and Changing Policies*, IT Publications.

Orlikowski, W. J., & Baroudi, J. J. (1991). Studying information technology in organizations: Research approaches and assumptions. *Information systems research*, 2(1), 1-28.

Peace, A. G., Galletta, D. F., & Thong, J. Y. L. (2003). Software piracy in the workplace: A model and empirical test. *Journal of Management Information Systems*, vol. 20, pp.153–177.

Petrescu, M, Girona, J.T & Korgaonkar, & P.K (2018) Online piracy in the context of routine activities and subjective norms, *Journal of Marketing Management*, vol.34: pp.314-346, DOI: 10.1080/0267257X.2018.1452278

Philips M. (1984) Bribery. Ethics, University of Chicago (July 1984) pp. 621-636.

Payne, B. K. and Gainey, R. R. (2004) 'Ancillary consequences of employee theft', *Journal of Criminal Justice*, 32(1), pp. 63–73. doi: 10.1016/j.jcrimjus.2003.10.005.

Peltier-Rivest, D., & Lanoue, N. (2012). Thieves from within: occupational fraud in Canada. *Journal of Financial Crime*, vol. 19(1), 54–64

PwC (2018). Global Economic Crime and Fraud Survey. PricewaterhouseCoopers LLP

Petty, R. and D. Wegener (1997), 'Attitudes and Attitude Change', *Annual Review of Psychology* vol. 48, pp. 609–647.

Price, J.L. (1997), "Handbook of organisational measurement", *International Journal of Manpower*, Vol. 18(4), pp. 305-558.

Qalati, S. A., Qureshi, N. A., Ostic, D., and Sulaiman, M. A. B. A. (2022a). An extension of the theory of planned behavior to understand factors influencing Pakistani households' energy-saving intentions and behavior: A mediated–moderated model. *Energy Efficiency* 15, 40. doi: 10.1007/s12053-022-10050-z

Quartey, P., Turkson, E., & Abor, J.Y (2017) Financing the growth of SMEs in Africa: What are the constraints to SME financing within ECOWAS? *Review of development finance* 7(1), 18 – 28.

Ramshida, A. P & Manikandan, K (2013) Organizational Commitment As A Mediator Of Counterproductive Work Behavior And Organizational Culture. *International Journal of Social Science & Interdisciplinary Research*, vol. 2(2).

Rasoolimanesh, S. M., Wang, M., Roldán, J. L., and Kunasekaran, P. (2021). Are we in right path for mediation analysis? Reviewing the literature and proposing robust guidelines. *Journal Hospitality and Tourism Management*. 48, 395–405. doi: 10.1016/j.jhtm.2021. 07.013

Randall, D. M., & Gibson, A. M. (1991). Ethical decision making in the medical profession: An application of the theory of planned behavior. *Journal of Business Ethics*, 10, 111–122

Rigdon, E. E. (2014). Rethinking partial least squares path modeling: Breaking chains and forging ahead. *Long Range Planning*, Vol 47, pp. 161–167

Rigdon, E.E. (2014b), “Rethinking partial least squares path modeling: breaking chains and forging ahead”, *Long Range Planning*, Vol. 47(3), pp. 161-167.

Ringle CM, Sarstedt M, Mitchell R, et al. (2019) Partial least squares structural equation modeling in HRM research. *The International Journal of Human Resource Management*

Robinson, W. N., & Aria, A. (2018). Sequential fraud detection for prepaid cards using hidden Markov model divergence. *Expert Systems with Applications*, vol.91, pp. 235-251.

Riemenschneider, C. K., Leonard, L. N. K., & Manly, T. S. (2011). Students’ ethical decision-making in an information technology context: A Theory of Planned Behavior approach. *Journal of Information Systems Education*. Vol.22, pp.203–225.

Rotenberry, P.F. and Moberg, P.J. (2007), “Assessing the impact of job involvement on performance”, *Management Research News*, Vol. 30 (3), pp. 203-15.

Ramadhan F.T, & Yuliana, R (2020) Analysis of Fraud Star and Organizational Commitment to Asset Misappropriation Detection with Internal Control System. *International Colloquium on Forensics Accounting and Governance (ICFAG)* Vol. 1

Rezaee, Z. (2005) Causes, Consequences and Deterrence of Financial Statement Fraud. *Critical Perspectives on Accounting*. Vol 16(2005) pp. 277-298.

Samagaio, A & Diogo, T.A (2022) Effect of Computer Assisted Audit Tools on Corporate Sustainability, *Sustainability*, 14, 705.

Saputra, K. A. K., Hudaya, A., & Dinarjito, A. (2023). Understanding the determinants of fraudulent intention in the banking sector: An extension of the Theory of Planned Behavior. *Banks and Bank Systems*, *18*(2), 13–25.

Saputra, K.A.K., Korompis, C.W.M. and Manurung, D.T.H. (2022), “*Fraud prevention determinants: a Balinese cultural overview*”, *Australasian Accounting, Business and Finance Journal*, Vol. 16 No. 3, pp. 167-181, doi: 10.14453/aabfj.v16i3.11.

Sarstedt, M., Ringle, C.M., Henseler, J. and Hair, J.F. (2014a) ‘On the emancipation of PLS-SEM: a commentary on Rigdon 2012’, *Long Range Planning*, Vol. 47(3), pp.154–160.

Sarstedt, M., Hair, J.F., Ringle, C. and Hair, J.F. (2018) ‘Partial least squares structural equation modeling’, Homburg, C., Klarman, M. and Vomberg, A. (Eds.): *Handbook of Market Research*, Springer, Germany, In Press

Sarstedt, M., Hair, J.F., Ringle, C.M., Theile, K.O. and Gudergan, S.P. (2016) ‘Estimation issues with PLS and CBSEM: Where the Bias Lies. *Journal of Business Research*, Vol. 69(10), pp.3998–4010.

Sarstedt, M., Ringle, C. M., Henseler, J., & Hair, J. F. (2014). On the emancipation of PLS-SEM: A commentary on Rigdon (2012). *Long Range Planning*, Vol. 47, pp. 154–160.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business student*, (5th Ed.). Prentice Hall

Sekaran, U., & Bougie, R. (2010). *Research Methods for Business: A Skill Building Approach* (5th Ed.) John Wiley & Sons, Ltd, Publication.

Sekaran, U. (2003). Towards a guide for novice research on research methodology: Review and proposed methods. *Journal of Cases of Information Technology*, 8(4), 24-35.

Sharma, D. (2018). When fairness is not enough: Impact of corporate ethical values on organizational citizenship behaviors and worker alienation. *Journal of Business Ethics*, vol.150(1), pp. 57–68.

Shmueli, G., Ray, S., Velasquez Estrada, J. M., & Chatla, S. B. (2016). The elephant in the room: Evaluating the predictive performance of PLS models. *Journal of Business Research*, Vol. 69, pp. 4552–4564.

Shmueli, G. and Koppius, O.R. (2011), “Predictive analytics in information systems research”, *MIS Quarterly*, Vol. 35(3), pp. 553-572.

Siddiqui, K (2019) Corruption and economic mismanagement in developing countries.

The world financial review pg, 50-58

Simha, A., & Satyanarayan, S. (2016). Straight from the Horse’s mouth: Auditors’ on Fraud Detection and Prevention, Roles of Technology, and White-Collars Getting Splattered with Red!. *Journal of Accounting and Finance*, vol. 16(1).

Singleton, T.W & Singleton, A.J (2010) *Fraud Auditing and Forensic Accounting*. Fourth Edition, Wiley & Sons Inc. Hoboken, New Jersey.

Siregar, S.V. and Tenoyo, B. (2015), “Fraud awareness survey of private sector in Indonesia”, *Journal of Financial Crime*, Vol. 22 No. 3, pp. 329-346.

Smith, R.G. (2001). Defining, measuring, and reporting fraud risk within your organization. HR Conferences, Applying Risk Management to Implement a Proactive Fraud Prevention Strategy in Financial Services. Park royal Darling Harbor, 19-20.

Smith, J. R., Terry, D. J., Manstead, A. S. R., Louis, W. R., Kotterman, D., & Wolfs, J. (2008). The attitude-behavior relationship in consumer conduct: The role of norms, past behavior, and self-identity. *The Journal of Social Psychology*, vol. 148(3), pp. 311–334.

Solesvik M.M, Westhead P, Kolvereid I & Matlay H (2012). Student intentions to become self-employed: the Ukrainian context. *Journal of Small Business and Enterprise Development* vol. 19(3):441-460.

Solinger, O. N., Van Olffen, W., & Roe, R. A. (2008). Beyond the three- component model of organizational commitment. *Journal of Applied Psychology*, vol. 93(1), pp. 70–83

Sparks, P. and Shepherd, R. (2002), “The role of moral judgments within expectancy-value-based attitude-behavior models”, *Ethics & Behavior*, Vol. 12 (4), pp. 299-321.

Spector, P. E.: (1992), ‘A Consideration of the Validity and Meaning of Self-Report Measures of Job Conditions’, in C. L. Cooper and I. T. Robertson (eds.), *International Review of Industrial and Organizational Psychology*, Vol. 7 (Wiley, New York), pp. 123–155.

Steg, L. J. (2008). Promoting household energy conservation. *Energy Pol.* 36, 4449–4453. doi: 10.1016/j.enpol.2008.09.027

Stone, M. (1974), “Cross-validatory choice and assessment of statistical predictions”, *Journal of the Royal Statistical Society*, Vol. 36(2), pp. 111-147.

Suliman, A. M., & Iles, P.A. (2000). Between control and commitment: Management and change as the art of balancing. *Leadership and OD Journal*, vol. 12, pp. 3-7.

Swales, S. (2004), “Commitment to change: profiles of commitment and in-role performance”, *Personnel Review*, Vol. 33(2), pp. 187-204(18).

Steg L & Vlek C. (2009). Encouraging pro-environmental behaviour: an integrative review and research agenda. *Journal of Environmental Psychology* vol. 29 (3):pp. 309-317.

Tackett J.A, (2010) Bribery and Corruption. *The Journal of Corporate Accounting and Finance*. Wiley, May/June 2010. Tang, T. L. and Y. Chen: (2008), 'Intelligence vs. Wisdom: The Love of Money, Machiavellianism, and Unethical Behavior across College Major and Gender', *Journal of Business Ethics*, vol. 82, 1–26.

Tan, K.L., Liu, Y. and Ye, Q. (2023), "A gendered discourse on truthful disclosure of financial fraud practices among accountants in China: implications to corporate governance", *Accounting Research Journal*, Vol. 36 Nos 2/3, pp. 230-250, doi: 10.1108/ARJ-07-2022-0160.

Tang, J., & Karim, K. E. (2018). Financial fraud detection and big data analytics – implications on auditors' use of fraud brainstorming session. *Managerial Auditing Journal*.

Tarjo, T., Anggono, A., Alim, M.N., Said, J. and Mohd-Sanusi, Z. (2024), "Religiosity, ethical leadership and local wisdom in moderating the effect of fraud risk management on asset misappropriation: evidence from local government in Indonesia", *Journal of Islamic Accounting and Business Research*, Vol. ahead-of-print No. ahead-of-print.

Tashakkori, A., & Teddlie, C. B. (2010). *Handbook of mixed methods in social & behavioral research*. (2nd ed.). Sage.

Tonglet, M. (2002), "Consumer misbehavior: an exploratory study of shoplifting", *Journal of Consumer Behavior*, Vol. 1 (4), pp. 336-54

Tonglet, M., Phillips, P. S., and Read, A. D. (2004). Using the Theory of Planned Behaviour to investigate the determinants of recycling behaviour: A case study from Brixworth, UK. *Resour. Conserv. Recycl.* 41, 191–214. doi: 10.1016/j.resconrec.2003.11.001

Timothy Paul Cronan Sulaiman Al-Rafee (2008) Factors that Influence the Intention to Pirate Software and Media. *Journal of Business Ethics* (2008) 78:527–545. DOI 10.1007/s10551-007-9366-8

Thoms, P., Wolper, P., Scott, K. S., & Jones, D. (2001). The relationship between immediate turnover and employee theft in the restaurant industry. *Journal of Business and Psychology*, vol. 15(4), pp. 561–577.

Tian .Q (2008), Perception of Business Bribery in China: The Impact of Moral Philosophy. *Journal of Business Ethics*. Vol 80 (3) pp. 437-445.

Transparency International (2021) Corruption Perception Index.

Treadwell, G.W (2021) Preventing employee fraud in small businesses with low-cost methods. *Journal of business and Accounting* 14(1), 3-15.

Trevino, L. K., Weaver, G. R., & Reynolds, S. J. (2006). Behavioral ethics in organizations: A review. *Journal of Management*, 32(6), 951–990.

Teal, F. (2002), “Export growth and trade policy in Ghana in the twentieth century”, *The World Economy*, Vol. 25 (9), pp. 1319-1337.

Tsai, A.Y.J.; Tan, A.Y.K. (2022) The Expanded Theory of Planned Behavior in the Context of Environmental Protection Behaviors for Undergraduates: Roles of Moral Norms and University Class Standings. *Int. J. Environ. Res. Public Health*, 19, 9256

Trafimow, D. (1996), The Importance of Attitudes in the Prediction of College Students' Intention to Drink, *Journal of Applied Social Psychology* vol.26(24), pp. 2167–2188.

Ugrin, J. C., & Odom, M. D. (2010). Exploring Sarbanes–Oxley's effect on attitudes, perceptions of norms, and intentions to commit financial statement fraud from a general deterrence perspective. *Journal of Accounting and Public Policy*, 29(5), 439-458.

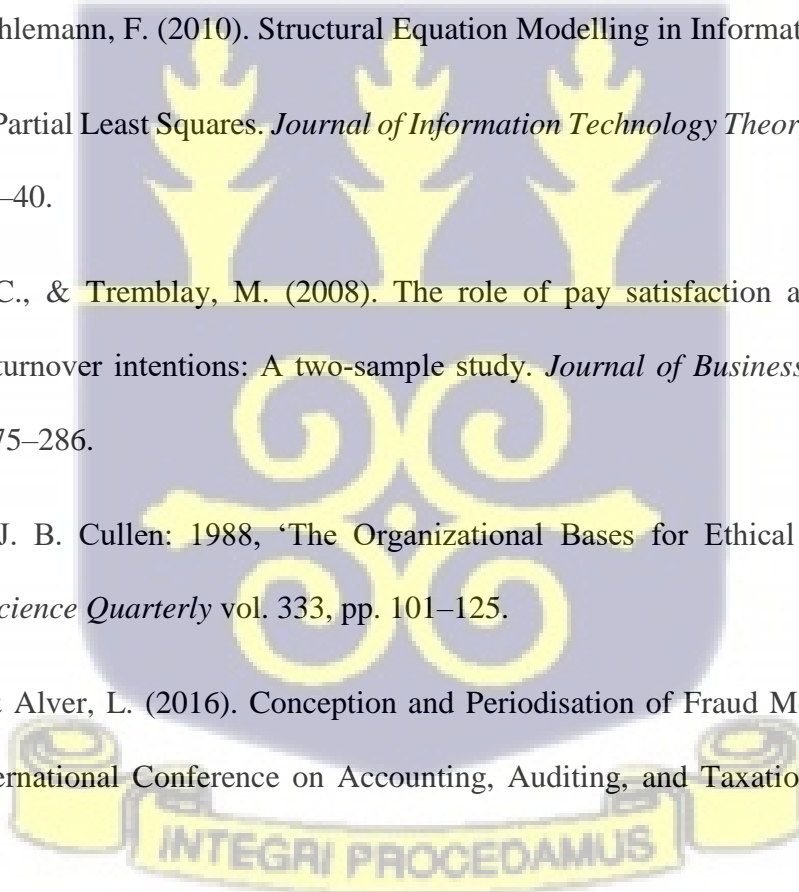
Ullah, S., Haroon, M., Hussain, S. and Rehman, A.U. (2023), “Islamic labelling and corporate governance: a perspective of Shariah compliance firms”, *Journal of Islamic Accounting and Business Research*, Vol. 14 No. 6, pp. 849-867, doi: 10.1108/JIABR-03-2021-0108.

Urbach, N., & Ahlemann, F. (2010). Structural Equation Modelling in Information Systems Research Using Partial Least Squares. *Journal of Information Technology Theory and Application*, Vol. 11(2), pp. 5–40.

Vandenberghe, C., & Tremblay, M. (2008). The role of pay satisfaction and organizational commitment in turnover intentions: A two-sample study. *Journal of Business and Psychology*, vol.22 (3), pp. 275–286.

Victor, B. and J. B. Cullen: 1988, ‘The Organizational Bases for Ethical Work Climates’, *Administrative Science Quarterly* vol. 33, pp. 101–125.

Vassiljev, M., & Alver, L. (2016). Conception and Periodisation of Fraud Models: Theoretical Review. 5th International Conference on Accounting, Auditing, and Taxation (ICAAT 2016). Atlantis Press.



Wang, Y (2022). What drives students' internet ethical behaviour: an integrated model of the theory of planned behaviour, personality, and internet ethics education. *Behavioural Information Technology*, vol. 41, pp 588–610. doi: 10.1080/0144929X.2020.1829053

Weber, J., Kurke, L. B., & Pentico, D. W. (2003). Why do employees steal? Assessing differences in ethical and unethical employee behavior using ethical work climates. *Business and Society*, vol. 42(3), pp. 359–380

Wallace, J. E. (1997). Professional and organizational commitment: Compatible or incompatible? *Journal of Vocational Behavior*, vol.(42), pp 333–349.

Whitener, E. (2001). Do “high commitment” human resource practices affect employee commitment? A cross level analysis using hierarchical linear modeling. *Journal of Management*, 27(5), pp. 515–535

Yazdanpanah, M., & Forouzani, M. (2015). Application of the Theory of Planned Behaviour to predict Iranian students' intention to purchase organic food. *Journal of Cleaner Production*, vol.107, pp. 342-352. <https://doi.org/10.1016/j.jclepro.2015.02.071>

Yekini K, Ohalehi, P Oguchi, I Abiola, J (2018) Workplace fraud and theft in SMEs: Evidence from the mobile telephone sector in Nigeria. *Journal of Financial Crime*, <https://doi.org/10.1108/JFC-03-2017-0025> Permanent link to this document: <https://doi.org/10.1108/JFC-03-2017-0025>

Yunita L.U , Alfita R, Dwi Okto I, & Neli, H (2020) *International Journal of Economics, Business and Accounting Research*, Vol 5, (2).

Yoon, C. (2011). Theory of planned behavior and ethics theory in digital piracy: an integrated model. *Journal of Business Ethics* vol.100, pp405–417.

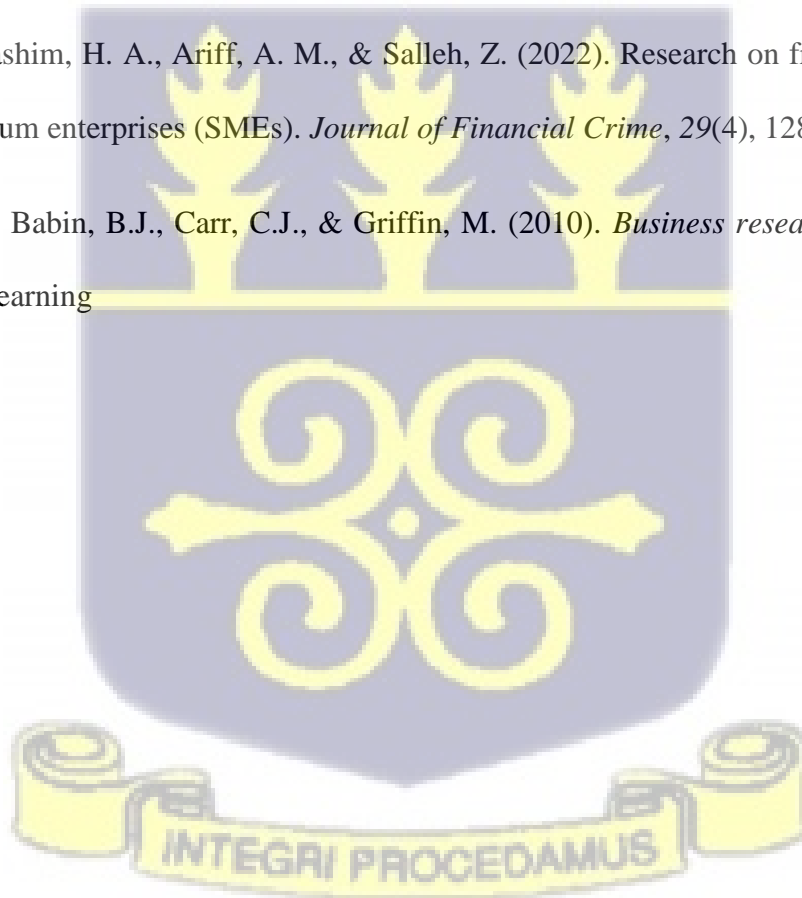
Yzer, M., & van den Putte, B. (2014). Control perceptions moderate attitudinal and normative effects on intention to quit smoking. *Psychology of Addictive Behaviors*, 28(4), 1153–1161.

Zimelis, A. (2020) Corruption research: A need for an integrated approach. *International Area Studies Review*. Vol 23(3) pp. 288-306.

Zahari, A. I., Said, J., & Arshad, R. (2020). Organisational fraud: a discussion on the theoretical perspectives and dimensions. *Journal of Financial Crime*.

Zainal, S. F., Hashim, H. A., Ariff, A. M., & Salleh, Z. (2022). Research on fraud: an overview from small medium enterprises (SMEs). *Journal of Financial Crime*, 29(4), 1283-1296.

Zikmund, G.W., Babin, B.J., Carr, C.J., & Griffin, M. (2010). *Business research methods*. (8th Ed.). Cengage Learning



APPENDIX

QUESTIONNAIRE ON THE DETERMINANTS ASSET MISAPPROPRIATION IN SMALL AND MEDIUM SIZED ENTERPRISES

This questionnaire aims to gather information on the factors influencing an individual's intention to misappropriate assets in small and medium-sized enterprises (SMEs). Asset misappropriation is defined as the "**theft or improper use of a company's resources for personal gain**" (KPMG, 2013). Examples include cash theft, inventory theft, misuse of company time or internet for personal activities, filing false medical claims, and submitting fraudulent expense reports. We appreciate your full cooperation and assure you that all responses will be kept confidential. Please indicate your answers by selecting the appropriate option in the spaces provided.

SECTION A

Demographics

1. Gender: Male Female
2. Age bracket: 18 - 25 26-30 31-35 36 - 40 41 and above
3. Years of Working with current employer: Less than 3 years 3-4 years 5-6 years More than 6 years
4. Highest Level of education: BECE WASSCE HND/Diploma Degree Masters Other
5. Type of Industry: Education Wholesale and Retail Manufacturing I.T

Health [] Agriculture [] Professional Services [] Restaurant [] Hospitality [] Other []

SECTION B

Attitude towards Asset Misappropriation

The under listed statements relate to the extent to which an individual perceives asset misappropriation to be favorable or unfavorable. Indicate your level of agreement on a 7- point Likert scale with a “tick” [√]. Where; 1=“Strongly Disagree (SD)” and 7=“Strongly Agree (SA)”

Code	Attitude toward Asset Misappropriation	1	2	3	4	5	6	7
AT 1	To me, misappropriating the assets of my employer is bad							
AT 2	To me, misappropriating the assets of my employer is dishonest							
AT 3	To me, misappropriating the assets of my employer is wrong							
AT 4	To me, misappropriating the assets my employer is foolish							

Subjective Norms

The under listed statements relate to the perceived social pressures by an individual’s close associates such as friends, family members, and co-workers to misappropriate or not to misappropriate assets at work. Indicate your level of agreement on a 7- point Likert scale with a “tick” [√]. Where; 1=“Strongly Disagree (SD)” and 7=“Strongly Agree (SA)”.

Code	Subjective Norms	1	2	3	4	5	6	7
SN 1	If I were to misappropriate assets at work, most of the people who are important to me would disapprove							
SN 2	Most of the people who are important to me would discourage me from misappropriating assets at work.							
SN 3	Most of the people who are important to me would think that misappropriating assets at work is morally wrong.							
SN 4	Most of the people who are important to me would look down on me if I were to misappropriate assets at work.							

Perceived Behavioral Control

The under listed statements relate to the perceived ease or difficulty associated with misappropriating assets at the workplace. Indicate your level of agreement on a 7- point Likert scale with a “tick” [√]. Where; 1=“Strongly Disagree (SD)” and 7=“Strongly Agree (SA)”.

Code	Perceived Behavioural Control	1	2	3	4	5	6	7
PBC 1	The control systems in place at work makes it easy for other employees and me to misappropriate assets.							
PBC 2	If I wanted to misappropriate assets at work, it would be easy.							
PBC 3	It is unlikely that I would get caught if I were to misappropriate assets at work.							
PBC 4	There are many opportunities at work for other employees and me to misappropriate assets.							

Moral Norms

The under listed statements relate to an individual’s belief of moral correctness or incorrectness about engaging in asset misappropriation at work. Indicate your level of agreement on a 7- point Likert scale with a “tick” [√]. Where; 1=“Strongly Disagree (SD)” and 7=“Strongly Agree (SA)”.

Code	Moral Norms	1	2	3	4	5	6	7
MN 1	I would feel guilty if I were caught misappropriating assets at work							
MN 2	Misappropriating assets at work is against my principles.							
MN 3	Misappropriating assets at work is morally wrong							

Asset Misappropriation Intention

The under listed statements relate to an individual employee’s motivation to engage in asset misappropriation at the workplace. Indicate your level of agreement on a 7- point Likert scale with a “tick” [√]. Where; 1=“Strongly Disagree (SD)” and 7=“Strongly Agree (SA)”.

Code	Asset Misappropriation Intention	1	2	3	4	5	6	7
IN 1	I might misappropriate assets at work in the future.							
IN 2	If I had the opportunity, I would misappropriate assets at work.							
IN 3	I would never misappropriate assets at work.							

THANK YOU