UNIVERSITY OF EDUCATION WINNEBA

an analysis of selected Momo fraud awareness campaigns of MTN Ghana

LOVELACE SETH MENSAH

MASTER OF ARTS

2024

UNIVERSITY OF EDUCATION WINNEBA

AN ANALYSIS OF SELECTED MOMO FRAUD AWARENESS CAMPAIGNS OF MTN GHANA

LOVELACE SETH MENSAH

(7231810002)

**A thesis in the School of Communication and Media Studies,
Submitted to the School of Graduate Studies
in partial fulfilment of
the requirements for the award of the degree of
Master of Arts
(Strategic Communication)
in the University of Education, Winneba**

NOVEMBER, 2024

DECLARATION

STUDENT'S DECLARATION

I Lovelace Seth Mensah, declare that this thesis, except for quotations and references contained inpublished works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

SIGNATURE:…………………………. DATE:…………………………………

SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of thesis/dissertation/project as laid down by the University of Education, Winneba.

SUPERVISOR'S NAME: PROF. MAVIS AMO-MENSAH

SIGNATURE:…………………………… DATE:………………………

ACKNOWLEDGEMENTS

I would like to begin by expressing my sincere gratitude to God for providing me with the strength,wisdom, and perseverance to complete this dissertation.

My deepest appreciation goes to my dissertation supervisor, Prof. Mavis Amo-Mensah. Her invaluable guidance, insightful feedback, and unwavering dedication throughout this research journey were instrumental in shaping this dissertation.

I am also incredibly grateful to Rebecca Avusu for her unwavering support and encouragement.
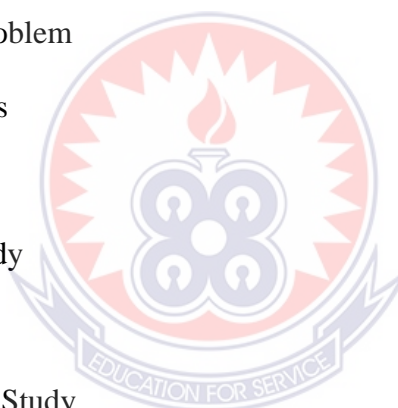
DEDICATION

To my beloved wife, Dorcas Mensah, and our cherished children, Lovelace Varden Mensah Jr., and Ewurabena Amponsah Mensah, I dedicate this thesis. Your unwavering belief in me has beenthe foundation for its successful completion.
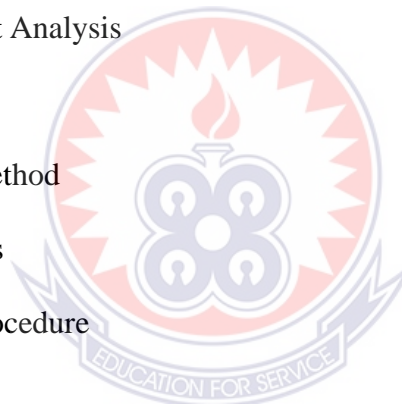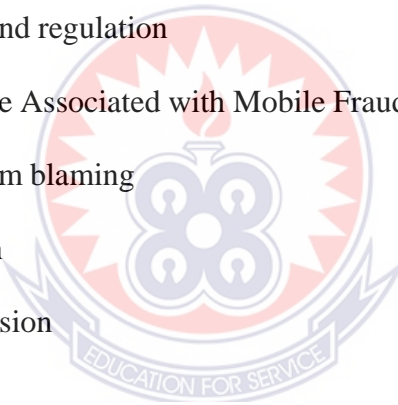
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ABSTRACT

This study investigates the effectiveness of mobile money (MoMo) fraud awareness campaigns of MTN Ghana, drawing on the persuasion theory and deception theories. Employing a qualitative case study design, the research explores five MTN MoMo fraud awareness campaignsand how they contribute to curbing fraud. The analysis reveals that the MTN MoMo fraud awareness campaigns utilize various strategies such as highlighting precautionary measures to influence user behaviours and encourage adoption of safe practices. The study also finds that diverse approaches, including community engagement, collaboration with law enforcement, and the use of relatable messaging, are crucial for effective awareness campaigns. The study recommends for improvement include prioritizing victim support, enhancing accessibility, fostering community involvement, continuously evaluating campaigns, strengthening partnerships, investing in user and provider education to curbing fraud. Additionally, it calls for greater collaboration among stakeholders and further research to enhance the effectiveness of fraud awareness initiatives in Ghana. This research contributes to a more comprehensive understanding of MoMo fraud awareness campaigns and their potential to safeguard mobile money users in Ghana.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Awareness creation is a series of coordinated activities, such as public speaking and demonstration, designed to achieve social, political, or commercial goals (Collins Dictionary, 2023). Educating and informing people about a problem is the process of raising awareness. Awareness campaigns aim to educate people about a problem so that, over time, they may adjust or modify their behaviour or attitude toward a certain objective (Network, 2019). Eltis (2019) defines an awareness campaign as a strategy that may be employed to promote the adoption of sustainable practices and draw public attention to important concerns including air pollution, traffic congestion, and road safety. Several studies have demonstrated that the only way to start a behavioural change is through initiative-taking awareness efforts. Awareness campaigns are set times (often a specific day, week, or month) throughout the year designed to educate and increase public awareness of a particular philanthropic cause, medical condition, organisation, or topic (Duckworth & Gross, 2020).

The organisation conducting the campaign must repeatedly and widely distribute messages to increase awareness (Brierley & Kramon, 2020). The efficacy of a campaign will be strengthened by the combination of certain specific methods such as press releases, webinars, speeches in public, newsletters, social media campaigns, educational events, and training. It is important to integrate the many methods used to disseminate the word (Wakefield, 2010). Some awareness campaigns include fundraising efforts designed to raise money to support medical research or to financially assist individuals, inform citizens about certain actions or practices that may

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be detrimental to theirwell-being (Network, 2019). Awareness campaigns are often organised by a company, group or organisation that is directly affected by the cause or is responsible for funding and research.

According to Davies (2012), raising public awareness is critical to mobilise local knowledge and resources, inspire passion and support, and encourage self-mobilisation and action. Since politicians and policy makers are major players in the process of adapting policies, it is especiallycrucial to raise public awareness (Davies, 2012). To achieve the intended result, raising awarenessnecessitates the use of effective communication techniques. One way to conceptualise an "awareness raising campaign" is the combination of different communication tactics for a specificaudience over a predetermined length of time (O'Neill et al., 2012). According to Davies (2012), while the exact purpose of awareness-raising campaigns varies depending on the situation, they usually try to educate the intended audience about the issues at hand and offer solutions or alternatives for changing their behaviour.

Amelia (2013) intimated that not all stakeholders are aware of their susceptibility and the steps they might take to proactively adapt to the strategies used by mobile money fraudsters. As a result, boosting awareness is a crucial part of the process for safeguarding subscribers and curbing the ripple effect of mobile money fraud. Awareness campaigns can address groups of people in a region directly affected by a particular event, groups of stakeholders, businesses, or the public in general (Kwok, 2019). The aim of such campaigns is to achieve long-term lasting behavioural changes (Komendatova, 2021). Awareness creation increases the knowledge of individuals, business and industry managers, organisations, and decision makers. It aims to ensure that every individual and stakeholder understands the impacts of certain prevalent

issues like fraud and takeappropriate action to respond to certain impacts (Khando et al, 2021). An effective publicawareness campaign consists of a well-defined message or specific call to action that is relatable to the target audience and is conveyed through a clear story line. This may be accomplished by using action, visual aids, and the appropriate elements in the proper sequence (Thalys, 2019).

Public awareness campaigns are divided into three types being differentiated with the aim; some are designed to raise awareness about an issue or to inform; others are created to change attitudes,while the third type is to change behaviour, as part of a package of measures (Thalys, 2019). Several variables directly influence the level of anticipated changes and that are important to consider when attempting to conduct a campaign to change users' behaviour. Among the variablesare physical or cultural barriers and their removal, if possible. Specifically, there are various awareness campaigns that seek to raise awareness of fraudulent practices and assist customers in taking specific steps or actions in detecting, preventing, and reporting fraudulent activities.

The term fraud encompasses actions that are meant to deceive people for financial or personal gain. It is any intentional or deliberate act to deprive another of property or money by guile, deception, or other unfair means (Chen, 2022). According to Albrecht (2003, 6) "fraud is a deception that includes the following elements: a representation about a material point which is false, and intentionally or recklessly so, which is believed and acted upon by the victim, to the victim's damage." Wells (2005, 8) states that any crime using deception for gain constitutes fraud."Under common law there are four general elements that must be present for a fraud to exist: (1) a materially false statement, (2) knowledge that the statement was false when it was uttered, (3) reliance

on that false statement by the victim, (4) damages resulting from the victim's reliance onthe false statement" (Wells 2005, p. 8). To curb this menace and safeguard the public, there are series of activities which are undertaken either by the government, companies, and groups with the aim to create awareness about fraud and corruption and its implications on people's livelihood.These series of activities are termed fraud awareness campaigns.

Many scholars and authors have intimated that victims of fraud are mostly financial illiterates. Anderson (2016) identifies many consumer risk characteristics, including insufficient consumer literacy, scepticism, overconfidence, readiness to take risks, and spending more time to consider an answer to a question rather than accepting an immediate but erroneous response. According toDeLiema (2018), predatory strangers conduct fraud, which is an act of deceit including the use ofa false promise or threat. Financial illiteracy (Engels, Kumar, & Philip, 2020), older age (DeLiema,2018, James et al., 2014), overconfidence (Anderson, 2016), and social isolation (Judges, Gallant, Yang, & Lee, 2017) are among the characteristics that researchers have found to increase the likelihood of becoming a victim of fraud. DeLiema et al. (2020) show that elderly persons with limited financial capacities are more prone to be deceived by financial predators since they have reached or beyond their peak wealth accumulation.

According to Obour (2023), one of the most effective ways to fight fraud is by creating and promoting education among the citizens. The citizenry must understand the diverse ways and forms fraud creeps into the social fabric of our communities, and this is significantly the first steptowards controlling the problem of fraud. Obour (2023) posits that raising public awareness of thedifferent forms of fraud, including identity theft, advance fee fraud, also referred to as 419, cyberfraud and pyramid schemes, will

enable the public to identify these fraudulent schemes when theycome across them and provide them with the necessary information to mitigate any potential risks.Regulators and financial institutions are investing effort in designing awareness campaigns in the form of TV commercials (TVCs) to raise awareness about fraudsters and their tactics with the objective of reducing customers' tendency to engage with them (Chugh & Narang (2023). Also, the International Fraud Awareness Week was established in the year 2000 by the Association of Certified Fraud Examiners (ACFE) to minimise the impact of fraud by promoting anti-fraud awareness and education.

Fraud awareness campaigns serve as a medium for enhancing financial literacy across all levels ofsociety and assist citizens in making informed decisions and safeguard themselves againstfraudsters (Obour, 2023). In November 2022, The Department of Water and Sanitation (DWS), together with Special Investigative Unit (SIU) and the Association of Certified Fraud Examiners South Africa (ACFE SA), came together to create awareness and encourage the public to take a proactive role in the on-going battle against fraud and corruption during the International Fraud Awareness Week campaign. According to the Ministry of Finance (2023), it is important for financial institutions, schools, and government bodies to collaboratively churn out programs aimedat educating the public. organisations such as the Anti-Fraud Initiative Ghana (AFIG), a registerednon-governmental organisation advocating for a fraud-free society seeks to cause a social change by helping in the fight against fraud, financial malfeasance, corruption, and abuse in both public and private sectors in Ghana. Prevalent among the several types of fraud perpetrated by unscrupulous individuals and gangs is mobile money fraud.

Mobile money use in Africa can be traced to the introduction of M-PESA in Kenya in 2007 by Safaricom (a listed Kenyan mobile network operator in Kenya). The term M-PESA is a combination of two individual words from the Swahili language, where "M" means mobile and "PESA" means money. M-PESA is therefore translated as Mobile Money. Thus, mobile money isknown to have started in Kenya in 2007 at the inception of M-PESA, a solution for peer-to-peer money transfer. Prior to the introduction of M-PESA, sending money to a relative was a big issuebecause of the low rate of banking at the time (Mobile Money for the Unbanked, 2016). M-PESA was originally envisioned as a mobile-based micro-financing application to extend financial accessto the underbanked in East Africa (Global System for Mobile Association (GSMA), 2015). Later, it was retooled as a mobile money platform when it was found that users were using the applicationmore for general money transfers rather than for microloans.

Mobile money has become the commonest means of transaction to many Ghanaians; individuals with no educational background, literates, elites, groups, and companies are registered on mobilemoney (Bank of Ghana, 2017). Despite its first introduction in Kenya, Ghana is reported to be thefastest growing mobile money market in Africa (World Bank, 2019). As of 2021, 39% of the Ghanaian population over the age of fifteen had registered mobile money accounts compared to about 13% of the population in 2014. The Bank of Ghana reported in 2021 that mobile money accounts, which numbered 32.7 million in February 2020, grew to number 40.9 million by February 2021.

In Ghana, mobile money services are provided by telecommunications companies like MTN Ghana, Vodafone, and AT. Thus, all the major telecommunication networks in Ghana offer mobilemoney services. The Bank of Ghana reports that the cheques cleared

for mobile money transactionsamounted to US$2.82 Billion for January 2021. Mobile money is widely considered a tool that allows the less-privileged consumer segment to make financial transactions services at a low or zero cost (Pelletier et al., 2020). The key enabler of mobile money services is the use of everydayretail stores and kiosks, which are known as agents, to capture customers' cash transactions (Batistaand Vicente, 2020; Dermish et al., 2011) and provide day-to-day financial and payment services, including local remittances and payment of utility bills.

Global Finance (2021) defines the term unbanked as that segment of the population without bankchecking, savings, or mobile money provider accounts; without access to financial and payment products, including insurance, loans, or mortgages; without protection from the theft or loss of their hard-earned money; and without any documentation of their financial transactions. Mobile money services have brought about a change in basic assumptions in the payment industry and have become increasingly dynamic but also disruptive over the last two decades. The mobile money channel has a significant potential to extend the distribution of formal financial services tothe poor segments of society who are not reached by other banking channels. In the Middle East and Africa, 50 % of the population are unbanked or financially excluded; in South and Central America, 38 %; in Eastern Europe and the former Soviet republics, 33 %; and in Asia Pacific, 24% (Global Finance, 2021).

According to GSMA (2015), the rapid adoption of mobile money among the unbanked and underserved is based on recent developments in device functionality, chip and mobile network technology, and Point of Sale (POS) infrastructure upgrades. These changes have strengthened theenvironment for mobile money solutions while also bringing together various industry players, such as banks and mobile money operators,

to form mobile money businesses. Also, the usage of mobile money services as a payment method provides the user with several advantages, including convenience, speed, flexibility, and affordability (GSMA, 2015). Furthermore, mobile money has sped up financial inclusion in Ghana. Mbutor & Uba (2013) viewed financial inclusion as strategies aimed at increasing the number of people with accounts in banks and other formal financial institutions - savings, current and credit. It also pursues the promotion of the use of formal payment media, including cheques, ATM cards, internet payments, mobile payments, and others by the populace (Mbutor & Uba 2013). Jenkins (2008) observed that mobile money aids financial inclusion because it is utilised for money transfers, utility payments, government revenue, and other purposes. It incorporates the excluded into the formal financial system, which is a necessary condition for effective market participation and development (Jenkins, 2008).

In 2015, mobile money fraud accounted for 53% of all mobile money transactions in Uganda, 42% in Tanzania, 12% in Kenya, and 23% in Ghana (Busuulwa, 2016), indicating that Ghana is a prominent target for mobile money scammers. According to the Cyber Security Agency (CSA), in Ghana, mobile money fraud is among the common frauds that is reported. Also, the Bank of Ghana reported that a total of 12,166 cases of mobile money fraud were recorded in 2022.

To reduce the high rate of fraudulent mobile money activities by unscrupulous men and ensure sustainability of the mobile money business, stakeholders including the Cyber Security Agency in Ghana, telecommunication networks and groups have invested efforts and resources in educating the public. The campaign focuses on preventive actions, such as boosting public knowledge of mobile money fraud and how to detect fraudsters/scammers. These campaigns are mostly geared towards creating

awareness and educating the public about the activities of fraudsters. This currentstudy, therefore, seeks to analyse Momo fraud awareness campaigns in Ghana.

1.2 Statement of the Problem

As part of the 2021 fraud report submitted by Ghana's Banking Institutions, Specialized Deposit-Taking Institutions (SDIs) and Electronic Money Issuers (EMIs), All fraud reported by EMIs is mobile money (Momo) related fraud. Fraud may have a severe negative impact on the victims' andtheir workers' quality of life by weakening faith in public institutions, causing job losses, savingsand investment losses, and a major drain on resources (Association of Certified Fraud Examiners[ACFE], 2023). There are two main types of (Momo) frauds; transfers made to the wrong person and cash reversals. In all EMIs recorded 12,350 (Momo) related fraud incidents (BANKING, SDIAND EMI FRAUD REPORT, 2021). The actions of mobile money scammers jeopardise the massive profits made from using mobile money. For example, according to data from the Bank ofGhana, 12,166 instances of fraudulent use of mobile money were reported in 2022 (Bank of Ghana, 2022).

In 2015, the Ghana Chamber of Telecommunications reported 278 occurrences of Momo fraud, followed by 388 cases in 2016. In April 2021, the chamber reported that over 4,000 incidents of mobile money fraud were being investigated (Brown, 2021). With the advent of financial serviceinteroperability, users can now link all their Momo wallets to their bank accounts for seamless cash flow, making Momo fraud a threat that is eroding user trust in using Momo for transactions such as Consumer-to-Consumer (C2C) e-commerce (Gukurume & Mahiya, 2020).

Mas and Radcliffe (2011) reported that the high rates of mobile money fraud observed are difficultto detect, and the devices and legislation available on mobile money

operations are insufficient tocatch the culprits. This is a significant economic issue, but a detailed assessment of the literature reveals that research on fraudulent transactions using mobile money services has not been documented. According to Osei-Assibey (2015), this phenomenon was attributable to the use of ineffective fraud indicators to detect, measure, and prevent the threat. Furthermore, few research studies on mobile money operations have mentioned the threat with no or little mention of countermeasures (Osei-Assibey, 2015).

Mobile money fraudsters capitalise on the ignorance of subscribers by using all forms of promotion-based approaches to lure them. According to the president of ICT Association of Malawi, Fudzulani (2020) blamed mobile money fraud on customer ignorance. According to Fuduzulani, lack of knowledge on matters regarding finances has made people become susceptibleto attacks by fraudsters and scammers. Therefore, Chief Executive Officer of Mobile Money Limited, a subsidiary of MTN Ghana, advised stakeholders in the digital financial ecosystem to allocate more resources towards customer education to eradicate mobile money fraud (News Ghana, 2021).

Thus, fraudsters take advantage of the user's ignorance and loot them of their money, and they keep producing new tricks as soon as the old trick becomes known. Hence, consistent education and update on the activities of mobile money fraud has become inevitably necessary.

Burke et al., (2022) conduct a survey experiment among a representative sample of U.S. adults on the effectiveness of educational campaigns in reducing fraud and consumer susceptibility to fraud. The survey revealed that online educational interventions can meaningfully reduce fraud susceptibility. On the contrary fraud awareness campaigns should have lasting effect on the consumers – stick in the minds

of consumers and create lasting attitudinal and behavioural change.

Furthermore, Research by Scheibe et al. (2014) revealed evidence that notifying previous victimsof fraud over the phone about specific schemes might boost their resistance to fraud, especially when they are approached with the same scheme. The findings point to the fact that fraud awareness or educational campaigns have a higher impact only on victims or people who have experienced fraud. In this case, fraud awareness campaigns will not have much impact on the persons who have not experienced fraud.

Moreover, Engels et al., (2020) found that due to the dynamic nature of financial fraud and the sophistication of fraudsters and scammers, it may be more effective to draw attention to the strategies and tactics used by scammers to defraud people of their money rather than issuing general warnings about specific scams (Engels et al., 2020). Thus, fraud awareness campaigns should go beyond educating consumers and subscribers about the prevailing tricks and methods but more importantly expound on probable future tricks fraudsters could use to outwit and outsmarttheir victims.

Although various surveys and evaluations have been done on the fraud awareness campaigns; Engels et al., (2021) conducted a study on financial literacy and fraud detection. The outcome of the study revealed that fraud tactics are increasingly complex, and it is greater financial knowledgerather than basic money management skills that provide the degree of sophistication necessary todetect fraud. Amoh et al., (2021) investigated customers' awareness and knowledge level of fraudulent acts in electronic banking in Ghana: evidence from a universal bank. The findings revealed that customers are aware of financial fraud associated with ATM, institutional factors such as lack of monitoring and education of clients were major factors which expose

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the bank andclients to fraudulent electronic banking acts and that the most effective action that can be taken toprevent fraud in the bank is increased security and PIN protection education. Akomea-Frimpong et al., (2019). Control of fraud on mobile money services in Ghana: an exploratory study. However,these studies are scanty and do not specifically highlight the effectiveness of fraud awareness campaigns on mobile money in Ghana.

This current study hinged on the research gap existing in Ghana and the various problems highlighted by previous studies in the other parts of the world. In this study, the researcher seeks to analyse the diverse mobile money fraud awareness campaigns in Ghana and the role they play in preventing and reducing mobile money fraud in Ghana.

1.3 Research Objectives

The general objective of the study is to understand the role of mobile money fraud awareness campaigns in reducing mobile money fraud in Ghana. The specific objectives are.

1. To assess the nature of mobile fraud awareness campaigns.

2. To examine how fraud awareness campaigns help to prevent mobile money fraud.

3. To identify the issues that emerge from mobile money fraud awareness campaigns

1.4 Research Questions

The following research questions will be asked.

1. What is the nature of mobile money fraud awareness campaigns?

2. How do mobile money fraud awareness campaigns help to prevent mobile

money fraud?

3. What issues are associated with mobile fraud awareness campaigns?

1.5 Significance of Study

By analysing existing mobile money fraud awareness campaigns in Ghana, to understand the roleof mobile money fraud awareness campaigns in reducing mobile money fraud in Ghana.

Fraud awareness campaigns are planned and executed to prevent and reduce fraudulent activities perpetuated by scammers or fraudsters against innocent victims. However, not all campaigns andin this case mobile money fraud awareness campaigns achieve the purposes for which it was planned and executed. Therefore, it is important to analyse and evaluate the effectiveness of fraudawareness campaigns in preventing and reducing fraud.

The outcome of this study will help MTN Ghana evaluate the impact of mobile money fraud awareness campaigns such as MTN Momo Police Fraud Campaign and MTN Momo U4know campaign.

Consequently, this study will contribute to the existing literature by examining the moderating factors that may affect the relationship between Momo fraud awareness campaigns and Momo fraud prevention and reduction in Ghana. In this case, the study will be beneficial to researchers, professionals, policy formulation, regulators, and telecommunications networks (especially MTNGhana) by highlighting key features of effective awareness creation campaigns and what makes itineffective.

Researchers in the field of communication and who participate in similar areas of study and research may well use and develop research findings further and then pass them on. The study willopen new areas of investigation, provide new research methodologies, or propose new hypothesesthat need to be evaluated. Researchers can use this study as a reference manual in further studies.Also, researchers can build on the findings of this study and advance knowledge in the field of communication. Additionally, this study will function as a reference guide for communication students and for future research endeavours. The study aims to enhance students' understanding ofthe role awareness campaigns play in achieving communication goals, such as educating mobile money users about fraud.

Practitioners can analyse and discuss issues around the relevance and impact of this research findings in others to improve future campaigns for effective outcomes. The findings of this studywill help those in charge of planning and implementation of fraud awareness campaigns in the various telecommunications companies in Ghana understand what works and what does not work.Most importantly, feedback from Mobile Money subscribers will be captured in this study helpingpractitioners know what they think about their efforts in safeguarding them and their money fromthe activities of fraudsters.

Policy on fraud and mobile money fraud must take into consideration effective ways of informingthe public or users of a particular service or product. Consistent with the activities and work of Policy Formulators such the Cyber Security Authority in Ghana, this study will analyse the fraudpreventive and reduction measures in the form of awareness campaigns. Thus, this study seeks toevaluate the impact of mobile money fraud awareness campaigns and suggest measures that will help improve the fight

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against fraud and safeguard mobile money subscribers. Therefore, the outcome of this study can be used as a guide to policy formulation on fraud.

Based on regulation, the study will highlight the activities of mobile money fraudsters which canhelp regulators implement measures that will ensure that telecommunication networks in Ghana and specifically MTN Ghana put in place systems to mitigate these dubious activities.

1.6 Delimitation

The researcher acknowledges that fraud is a broad subject, and it will be impossible for a single study to capture the full spectrum of fraudulent activities within the financial sector. This study examined mobile money fraud and the role of fraud awareness campaigns in promoting fraud awareness and educating mobile money users and merchants to prevent the activities of mobile money fraud in Ghana, specifically MTN subscribers. The study will focus on the use of mobile money fraud awareness campaigns by MTN to inform and educate subscribers about the activitiesof mobile money fraudsters.

1.7 Organisation of the Study

The study is structured into five (5) chapters. The First chapter dealt with the background of the study, statement of problem, research objectives, research questions, significance of study and thedelimitation of the study. Chapter Two is Literature Review, which encompasses an introduction,theoretical framework, and review of related and relevant literature. Chapter Three is dedicated toresearch Methodology which includes research design, population and sample, sampling technique, sources of data collection and data collection instruments, and lastly, techniques of dataanalysis. The Fourth Chapter will provide the analysis and discussions of key findings while the

Final Chapter will summarise the key findings, draw conclusions, and make recommendations.

1.8 Chapter Summary

In this chapter, the researcher discussed the foundation of the study which forms the background of the study. The background of the study explained important variables in the topic such as campaigns, fraud awareness campaigns, mobile money, and Momo fraud awareness campaigns. It further expounded on the historical background to mobile money and the impact it had on the financial system, the challenges of mobile money posed by scammers and fraudsters whose activities are seen as a bane to the 'blessings' of mobile money.

Also, the chapter highlighted the problem of mobile money fraud and the gap in the literature. It was discovered in the problem statement that literature on fraud awareness campaigns and its effectiveness in reducing fraud is very scanty, especially in Ghana. Moreover, existing literature on fraud awareness campaigns focused on fraud awareness campaigns in general while some tackled topics such as cyber fraud, among others.

Furthermore, the chapter established the purpose, specific objectives, research questions, significance of the study, delimitation, and organisation of the study. How the study will be conducted and what each chapter will entail was explained under organisation of the study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The chapter provides the theoretical and conceptual frameworks underpinning the study. The chapter presents a review of the extant literature with the view of providing information on the main concepts and theories within which the study is situated and sheds light on existing knowledge to analyze fraud awareness campaigns that seek to educate mobile money users and merchants on mobile money fraud. The review of related literature will be conducted in line withthe four specific objectives of the study. This chapter also discusses the theoretical framework of the study.

2.1 The Nature of Mobile Money Fraud

The concept of mobile money was originally envisioned as a mobile-based micro-financing application to extend financial access to the underbanked in East Africa. Today, mobile money hasbecome a familiar term among mobile phone users, mobile telecommunication networks, technology experts and academia Asongu and Asongu, 2018; (Narteh et al., 2017). This concept, which was originally developed to provide access to the less privileged financial sector gained traction and acceptance across the world in 2008 and 2009 (Gosavi, 2017; Maurer, 2015; Suri and Jack, 2016). Many researchers and scholars ascribe the inception of mobile money service to M- PESA, which is a conjunction of two individual words from the Swahili language, where "M" means mobile and "PESA" means money. M-PESA therefore translated as Mobile Money.

Mobile money has its origin in Kenya, and it has spread to many developing countries across the earth (Markovich and Snyder, 2017). The service can be accessed via mobile

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phone (Etim, 2014).

Mobile phones have generated significant prospects for financial growth and are expected to become a widespread tool for conducting a range of financial transactions (Muganyi et al., 2022; Iman, 2018). Mobile phones include features that go beyond typical telecommunication requirements and encourage the development of value-added mobile services like mobile money (Khet & Tha, 2022). Momo is increasingly becoming a popular method of payment for the unbanked in developing nations (Wieser et al., 2019). The rapid increase of Momo usage is due inpart to the rising penetration of mobile phones, particularly in emerging nations (Aggarwal et al.,2020). Momo provides a wide range of services to its consumers, including rapid and trustworthy financial transactions such as utility payments, cash withdrawals, and deposits. Millions of individuals throughout the world have seen their lives revolutionized by mobile money.

Accordingto the GSMA's 2021 industry report, there are 1.35 billion registered mobile money accounts worldwide, processing $1 trillion in transactions each year (GSMA, 2022). In developing nations,Momo is bringing the informal and unbanked population into the financial system. Momotransactions in Ghana have increased dramatically over the previous 10 years. The overall value of mobile money transactions has risen from GHS155.8 billion in 2017 to GHS564.2 billion in 2020.

According to Akomea-Frimpong et al., (2019), mobile money technology has received consistentgrowth and attention and steadily becoming the most convenient, efficient, and effective means of conducting financial transactions especially for the unbanked and underserved in developing countries. Mobile money presents three significant opportunities to users: ease of transfer, security,convenience, and portability (Shaikh et

al., 2023). With the help of mobile money, it has becomeeasy and almost effortless to send money, from one mobile wallet to another (Castri, 2013). The mobile money service also helps in paying other bills on electricity and water, digital television, parking fees and several other services. This is a rising trend among many consumers, especially those in urban settings. This phenomenon is rampant among wealthy urban mobile phone users (Nyaga, 2013).

Mobile money was first introduced in Ghana by Mobile Telephone Network (MTN) in 2009. Theservice was later adopted by Airtel and Tigo in 2011 (Fintech Africa, 2017). Prior to Airtel and Tigo merger in 2017 (Nicco-Annan, 2020), there were four telecommunication companies (MTN,Airtel, Vodafone, and Tigo) in Ghana involved in rendering mobile money payment services to thepublic: MTN mobile money, Airtel money, Vodafone cash and Tigo Cash (Roberts, 2016). According to the National Communications Authority (NCA) (2023), MTN Ghana is the largest telecommunications company in Ghana, leading the charts in market share for mobile data (72.16%) and mobile voice (63.06%) subscriptions. The company provides a wide range of services, including voice and data services, as well as mobile money services. MTN's dominant advantage is its wide network coverage, which extends to most regions of the country.

The importance of Momo transactions for the Ghanaian economy cannot be overstated. However, the popularity of this service has created a risk to its operators, since unscrupulous individuals continue to exploit mobile money to defraud others (Akomea-Frimpong et al., 2019). Despite theimportance of Momo, mobile money fraud has recently emerged as a serious worry for all stakeholders (telecommunications companies, fintech firms, Momo merchants, end users, banks, and regulators). Momo

fraud is perpetrated by cybercriminals, Momo merchants, and service provider employees on unsuspecting Momo users, typically using social engineering or hacking techniques (Kilavo et al.,2022). There are many empirical findings and reports suggesting that mobile money technology has been hit by all forms of fraudulent activities such as subscriber fraud, employee or agent fraud and system fraud. A study conducted by (Iman, 2018; Jocevski) revealed that mobile payment systems have been challenged by several types of factors that have emerged in the context of advances in financial technology. Furthermore, Verkijika, (2020) presented a model that focuses on understanding the role of emotions (i.e., affect, anticipated regret, and anxiety) in the acceptance of mobile payment systems.

The affective components in the model were drawn from two theories: the social-cognitive theory (SCT) and the regret theory. The study found that the effects and anticipated regret had a significant positive influence on behavioralintentions to adopt mobile payments, while the influence of anxiety was not significant. Iman (2018) analyzed the relevance of mobile payment in the fintech era. The author compared three mobile payment projects – Oi Paggo in Brazil, TCASH in Indonesia, and M-PESA in Kenya – ascase studies. Mobile payment systems currently operate in such complex and multidimensional networks with shared common infrastructures and compete for producing and providing value to the customers based on these infrastructures (Iman, 2018). Jocevski et al., (2020), acknowledged the challenge in growth of platform business models in relation to increased digitalization of economies. The study adopted a business model (BM) perspective to understand how mobile payment platform providers go about addressing such a challenge. The study focused on how mobile payment providers engaged in innovation of their business models, and thus identified three pertaining aspects: rethinking the relationship

management with retailers, creating partnerships with other actors in the payment ecosystem to complement and deliver the proposed value, and integrating and using front-end mobile technology. Jocevski et al., (2020), suggested that mobile payment providers need to adapt their role within the ecosystem to scale the platform, and that it will depend on their choice of scope of geographic availability.

Mobile money fraud is an intentional act perpetuated by scammers or fraudsters to gain undue advantage over the mobile money subscribers, mobile money operators and mobile money agents(Merritt, 2011; Subex, 2017). Fraudulent activities on mobile money services have been categorized into commercial and technological factors. On the commercial factors, the need to increase cost efficiency is particularly emphasized because most mobile payment transactions in developing countries are low value but high volume (Franque et al., 2020). Meanwhile, the secondgroup of factors; technical factors involve security concerns, as the legal frameworks and enforcement mechanisms are often inadequate in developing countries (Akanfe et al., 2020; David-West et al., 2022; Pal et al., 2020). Chin et al., (2022) and Pal et al., (2021), emphasized theneed for telecommunications companies to invest adequate resources with the objective ofminimizing mobile money fraud to increase customer trust and security. Securing customers against fraudulent activities by scammers and fraudsters requires consistent and concerted effort considering the number of hours and days these scammers spend planning their activity.

The scammers take an exceptionally long time to plan it and sometimes get resources and technical assistance from cartels that pounce on the weaknesses in the system to enrich themselves (Maurer, 2012). Fraudulent activities on mobile money emerged as mobile money services grew in the country.

The Ghana Chamber of Telecommunications reported 278 mobile money–related fraud cases in 2015 and 388 cases in 2016 (Akomea-Frimpong et al., 2019). The Ghana Chamber of Telecommunications in April 2021 reported that over 4,000 cases of mobile money fraud were under investigation (Nicholas Brown, 2021). Currently, there are four major types of mobile money fraud prevalent in Ghana. The four types of mobile money fraud have beencaptured in table 1 below.

Types of Mobile Money Fraud in Ghana

TYPE OF FRAUD	MEANING
1. Mobile network operator fraud	This type of fraud involves employees of telcos and occurs in different forms. Employees can steal from customers' mobile money wallets, transfer customers' money unauthorized, collude with other fraudsters to swap SIM cards, etc. It involves a telco employee manipulating a customer's account without authorization.
2. False promotionfraud	Prompts are sent under the guise of a telco promotion and the recipient is asked to input their PIN as a verification measure to claim their "prize." The fraudster gains access to the recipient's mobile money account with the PIN that was inputted.
3. Scam messages /reversal of erroneous transactions	A fake SMS is sent that indicates a deposit into a customer'saccount. The fraudster then calls the customer to tell them the deposit was a mistake and to send that amount back.
4. Fortuitous fraud	Fraudsters pose as delivery companies and call customers under thepretext of delivering goods to them from relatives abroad. Customers will then be instructed to make a deposit to a mobile money account in exchange for delivering the goods.

Source: Ifeanyi-Ajufo, (2022). Digital Financial Inclusion and Security: The Regulation of MobileMoney in Ghana.

Akomea-Frimpong et al., (2019), identified three types of mobile money fraud: Subscribers' fraud,Employee and agents' fraud and Systems' fraud. Subscribers' fraud is fraudulent activities perpetuated by mobile subscribers who register with the aim of using deceptive means to transact businesses and steal money from other subscribers and the mobile money operators. These activities of fraudulent subscribers affect the unwitting people with an estimated 50 per cent of mobile money subscribers and mobile money operators being subjected to the whims and capricesof the fraudulent subscribers. The second type of mobile money frauds are perpetuated by employees and agents who have linked themselves up to dupe and manipulate the transaction processes and profit from it with the employees of the mobile money operators. These scammers create multiple dummy accounts and passwords to siphon money into accounts and use these fundsfor their own good. In 2017, MTN sanctioned 3,000 agents for mobile money fraud who were caught conniving with mobile money subscribers to defraud the mobile money operators in Ghanain 2017 (Graphic Online, 2017).

Lastly, Akomea-Frimpong et al., (2019), intimated that sophisticated algorithms invented to help the activities of telecommunication operators to accomplish different purposes are non-existent. Some of the systems have become obsolete and cannot compete with the increasing challenges associated with mobile money operations (Vlcek, 2011). These weaknesses serve to give scammers an advantage. They go round the system and useit to dupe others of their money. Fraudulent technology experts also maneuver the IT systems to dupe others and cover them up (Akomea-Frimpong et al., 2019).

Central banks are responsible for regulating mobile money services (Maurer, 2012). Central banksconduct exercises based on industry feedback to address gaps in existing

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legislation governing their services. Central banks gather and analyze feedback from important stakeholders on services before developing policy documents. Mobile money companies have stated that policy papers do not adequately address the risks connected with the service (Mas and Radcliffe, 2011). Annually, central banks update their policy texts to assist financial inclusion efforts. Central banks educate mobile money providers on digital finance, e-business transactions, money laundering, and fraud prevention measures (Suárez, 2016). Central banks connect mobile money providers with security agencies and the government.

Banks have traditionally served several responsibilities, including financial intermediaries, investment management, and customer assistance (Bara, 2013). However, these transactions pose significant dangers. According to Markovich and Snyder (2017), banks have expanded their offering to include mobile money services. Banks often have more control over mobile money operations in nations where they (Singh, 2012) created the service. However, in certain cases, such as Ghana, banks function as fund managers for the operators. These banks help MNOs diversify their assets and earnings to avoid relying just on cash for operations. Banks manage mobile money operators' cash based on central bank directives. Banks set strict criteria for mobile money providers, educate them, and provide rules on currency limits for customers. Banks enforce KYC to prevent fraudulent transactions. Banks now use advanced technologies to protect mobile money operators' funds from theft and hacking (Narteh et al., 2017).

Mobile money operators and their representatives: To increase financial inclusion and entice unbanked individuals to formal banking institutions, central banks have partnered with telecommunications firms, beginning with Kenya's M-PESA program

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(Merritt, 2011). Cooperation between telecommunication firms and stakeholders is crucial for preventing fraud and maintaining service quality (Klein and Mayer, 2011). Gilman and Joyce (2012) suggest that coordination between mobile money carriers and security authorities is crucial for regulating and preventing fraud. Mobile money carriers prioritize excellent internal controls and strictly adhere to industry norms and central bank rules. Regular in-house training on mobile money services, together with increased pay packages, helps boost staff morale and reduce fraudulent activities. Mobile money carriers adhere to strong KYC standards and regularly verify members' accounts, passwords, and other information (Sorooshian, 2018).

2.2 Mobile money fraud awareness campaign

The rise of mobile money services in Ghana has revolutionized financial inclusion, offering a convenient and accessible way to conduct financial transactions (Larnyoh, 2020). However, this growing reliance on mobile money has also created fertile ground for fraudsters. Mobile money fraud, encompassing acts like unauthorized transfers and cash reversals, significantly erodes user trust and hinders the service's potential. Mobile money fraud awareness campaigns have emerged as a strategic response to the growing challenge of fraud (Larnyoh, 2020). These targeted initiatives aim to achieve specific goals within a defined time. By raising awareness of common fraud tactics and prompting desired changes in user behavior, these campaigns promote the safe and secure use of mobile money services.

Barker, (2020) conducted a study on the use of initiative-taking communication through knowledge management to create awareness and educate clients on e-banking fraud prevention. The study was designed to address the lack of studies to educate clients and create awareness on fraud prevention in this sector, specifically on e-

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banking fraud that falls into two main categories: phishing/vishing/Smishing and malware practices. The study employed an interpretivist approachto analyse an online website that is available to all users. The study's subject was the South AfricanBanking Risk Information Centre (SABRIC) within two times (2017 and 2018), and an abductiveapproach was employed to report on the findings, which were based on descriptions and interpretive remarks relating to and relying on the theoretical thrusts found. The study found that SABRIC used its website to communicate proactively with clients to create awareness and educatethem on e-banking fraud prevention measures. The main themes that emerged from the findings were the need for collaborative efforts, member training, intervention by government and law enforcement agencies and the importance of awareness of protective measures.

The study discovered that an online campaign is one of the forms of fraud awareness campaigns used to engage proactively with clients to educate them on e-banking fraud prevention.

Skula, Bohacik, & Zabovsky (2020), examined the Use of Different Channels for User Awarenessand Education Related to Fraud and Phishing in a Banking Institution. The study took cognizanceto the fact that each person faces the risk of falling to fraud not only as an individual but also as acustomer of bank, insurance company, mobile operator, government services and many others. Itwas observed that to tackle the fraud risk holistically it is not enough to implement fraud-risk related processes into daily operations and deploy fraud detection and prevention tools and systems. The weakest point is usually the person - employee or customer, especially the uneducated one. Therefore, it is essential to complement the above measures with awareness and education. The study reviewed different channels available for fraud prevention

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awareness campaigns and their characteristics (reach, relative cost, age group and supported message format)which impact their applicability. The study also analyzed historical occurrences of fraud related messaging as well as fraud awareness posts distributed through one of the "youngest" channels - Twitter (social network) by the banks in the UAE. The tweets of selected banks in UAE were analyzed to observe how they use this channel for communication with their customers and morespecifically - how they use the channel for the purpose of fraud awareness.

Mwanyale, (2014) investigated the Effects of Regulatory Framework on Combating Fraud of Mobile Money in Kenya. The objective of this study was to this study sought to examine the effectsof regulatory framework on combating fraud of mobile money in Kenya with special focus on mobile money companies in Nairobi. Furthermore, the study was expected to help policy makers develop frameworks that will combat fraud in the mobile money sector. Descriptive research design was adopted, and this combines both quantitative and qualitative research while questionnaire was the key study instrument. The study further used the Pearson product-moment correlation as the analytical model. With sixteen respondents forming the study participants, results indicate the oldest mobile Money Company was started 5 years ago. The study utilized public interest economic regulatory theory and private interest theory in examining the selected study area. Results show that noncompliance remains a challenge as respondents indicated there were no penalties for any non-complying individuals.

The study focused on the regulatory framework put in place to combat mobile money fraud and not specifically fraud awareness campaigns. Also, the study sample size was limited to just sixteenparticipants therefore their views may not be a true reflection of the situation at hand. Geographically, the study was conducted in Kenya, limited to

those in Nairobi. Additionally, the outcome of the study was based on noncompliance which was challenged to combating mobile money fraud in Kenye, Nairobi.

In this study, however, the researcher will focus on fraud awareness campaigns and the role they play in preventing and reducing mobile money fraud. Furthermore, this study will interview bothpractitioners or staff of MTN Ghana and subscribers to have a holistic picture of the phenomena.

2.3 How fraud awareness campaigns prevent mobile money fraud

Cross & Kelly., (2016) investigated the problem of "white noise": Examining current prevention approaches to online fraud. The purpose of the study was to examine the current prevention messages that exist surrounding the prevention of online fraud. It focuses on the amount and levelof detail that is promoted for each type of potential fraudulent approach. Multiple data sources were used to establish the main premise of this paper. Qualitative data from victims who have experienced online fraud, and materials collected through a police investigation into online fraud were adopted. Results of this analysis indicated that current prevention messages are characterizedby a large degree of detail about the many ways that (online) fraud can be perpetrated.

This is argued to be ineffective, based on the experiences of victims who were unable to apply their previous knowledge about fraud to their experiences. The study points to a simplification of existing prevention messages to focus more importantly on the transfer of money and theprotection of personal information.

Sanni et al. (2023). A Predictive Cyber Threat Model for Mobile Money Services. Predicting potential mobile money cyber threats will afford the opportunity to implement countermeasures before cybercriminals explore this opportunity to impact

mobile money assets or perpetrate financial cybercrime. However, traditional security techniques are too broad to address these emerging threats to Mobile Financial Services (MFS). Furthermore, the existing body of knowledge is not adequate for predicting threats associated with the mobile money ecosystem. Thus, there is a need for an effective analytical model based on intelligent software defense mechanisms to detect and prevent these cyber threats. In this study, a dataset was collected via interview with the mobile money practitioners, and a Synthetic Minority Oversampling Technique (SMOTE) was applied to handle the class imbalance problem. A predictive model to detect and prevent suspicious customers with cyber threat potential during the onboarding process for MMSin developing nations using a Machine Learning (ML) technique was developed and evaluated.

Toevaluate the proposed model's effectiveness in detecting and classifying fraudulent MMS applicantintent, it was trained with various configurations, such as binary or multiclass, with or without theinclusion of SMOTE. Python programming language was employed for the simulation and evaluation of the proposed model. The results showed that ML algorithms are effective for modelling and automating the prediction of cyber threats on MMS. In addition, it proved that the logistic regression classifier with the SMOTE application provided the best classification performance among the various configurations of logistic regression experiments performed. Thisclassification model will be suitable for secure MMS, which serves as a key deciding factor in the adoption and acceptance of mobile money as a cash substitute, especially among the unbanked population.

The study was aimed at investigating how online fraud control procedures are established and maintained in Saudi financial institutions. The natural settings of

participants were used to collect qualitative data in the form of words (text) via interviews and observation. Twenty-seven interviews were conducted with experts in Saudi Arabia. The participants were chosen based on their involvement in the prevention of online fraud in their individual banks and their functions in the banks. The study discovered that people's perspectives (from their moral, social, cultural, and religious backgrounds) have a substantial effect on awareness and fraud prevention and detection through qualitative interviews with professionals in Saudi Arabia. It also argues that technological measures alone may not be adequate. Deterrence, prevention, detection, and remedy activities, together making General Deterrence Theory (GDT) as an approach for systematically and effectively combatting online fraud in Saudi. They concluded that technological remedies alone may not be sufficient.

There is a need for further study focused on the impact of moral, social, cultural, and religious backgrounds on the effectiveness of fraud awareness campaigns. Subscribers of mobile money may not have the technical ability to undertake technical procedures to safeguard themselves from fraudsters. Also, the methodology used limited the number of participants therefore the outcome of the study cannot be generalized.

Suh et al., (2019) studied the effects of reducing opportunity and fraud risk factors on the occurrence of occupational fraud in financial institutions. The objective of the study was to measure the relationships between the perceived 'opportunity reduction' and other fraud risk factors about the 'likelihood of fraud occurrence' in financial institutions. For data collection, a questionnaire was constructed and distributed using a quota sampling method to employees in the Korean financial institutions during the period from June to October 2016. The survey questionnaire utilized a web-based platform easily accessible via social networks and email services. For analysis, the

study gathered 395 survey responses from South Korean financial sector.The results of logistic regressions of the study highlight that how to operate control mechanisms combining prevention and deterrence measures (the qualitative aspect of internal control), is moreimportant for preventing fraud than the mere existence of many anti-fraud controls. In addition, the study discovered that the employees of the Korean financial institutions view that the risk of management override of controls is a more critical risk than collusion in their organization.

Wilson et al., (2023). Explored the extent and nature of fraud or frauds and evoked the concern that the public is vulnerable and susceptible to swindles if they are not resilient and aware. It furtherhighlighted why victims fall for defrauds and uncovers preventive measures to enable a directionin tacitly strategizing ways to create more impactful and effective awareness campaigns. The study investigated these issues using a comprehensive qualitative methodology. In-depth interviews wereconducted with six victims, six non-victims, four law enforcement officers, four scammers, and seven stakeholders from various agencies involved in fraud prevention, including banks, telecommunications companies, and the Malaysian Communications and Multimedia Commission. The findings typically suggested that victims of frauds believed Malaysians were vulnerable to frauds, easily duped, and had a casual attitude. Most participants also agreed that public safety is critical to providing an excellent quality of life for residents and that the government and non-government institutions should collaborate closely, including effective law enforcement and crime prevention efforts. In this study, the authors focused on fraud or fraud in its entirety for which reason the findings did not point specific fraud practices such as financial fraud in the banking sector, mobile money fraud and online purchase fraud. On this basis, the current study seeks to focus specifically on the prevention of mobile money fraud through

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publicawareness campaigns.

2.4 Issues on mobile money fraud awareness campaigns

Periansya et al., (2023). Whistleblowing, fraud prevention, and fraud awareness: evidence from the Palembang local government of Indonesia. The study aimed at examining how fraud awareness and good government governance affect fraud prevention. The study targeted one of the RegionalGovernment areas of Palembang City, Indonesia. One hundred twenty-two respondents comprisedthe head of budget staff, budget user authority staff, and commitment-making committee staff. Data were obtained using a questionnaire with a Likert scale. The study employed two endogenous variables (fraud prevention and fraud awareness), one intervening (fraud awareness), and two exogenous variables (whistleblowing and good government governance). Following this, structural equation models were used to examine the relationships between each variable.

The study results show a significant positive effect of whistleblowing and good governance on fraud awareness. In contrast, fraud awareness had no significant impact on fraud prevention. The obtained results found that fraud awareness cannot mediate the whistleblowing system through fraud prevention; also, fraud awareness is not a moderating variable to influence good governancethrough fraud prevention. The paper contributed empirical evidence to explore fraud prevention approaches by maintaining consistency in the implementation of the whistleblowing system, anti-corruption culture, and supervision to identify unusual activities.

Ahmad & Mahmood, (2013) examined the critical success factors for preventing E-banking fraud.The study was conducted based on the lack of sufficient research in this area and the problem it poses for practitioners. They were needed to help improve

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security and prevent stakeholders fromlosing confidence in the system. The objective of this study was to understand factors that could be critical in strengthening fraud prevention systems in electronic banking. The study reviews relevant literature to help identify potential critical success factors of frauds prevention in e- banking. The findings show that beyond technology, there are other factors that need to be considered such as internal controls, customer education and staff education. These findings will help assist banks and regulators with information on specific areas that should be addressed to build on their existing fraud prevention systems.

Usman, (2018) investigated the Critical Success Factors for E-Banking Frauds Prevention in Nigeria. E-Banking frauds is an issue experienced globally and continues to prove costly to both banks and customers. Fraud in e-banking services occurs due to various compromises in security, ranging from weak authentication systems to insufficient internal controls. Although some securityframeworks to address this issue of fraud have been proposed, the problem of e-banking fraud remains due to the inability of these frameworks to deal with organizational issues. The study was designed to identify the organizational Critical Success Factors (CSF) for E-Banking Frauds Prevention in Nigeria by applying CSF theory. A framework was proposed to help improve securityfrom an organizational perspective. The study adopted a mixture of philosophical paradigms which led to the triangulation of research methods, Literature Review, Survey and Case Studies. The Literature Review involved the synthesis of existing literature and identified potential CSF for frauds prevention in e-banking. A total of twenty-eight factors were identified and a conceptual framework was proposed. A 5-point Likert scale survey questionnaire was sent to retail bank staff in Nigeria to rate the criticality of the factors. A total of 110 usable responses were received at a response rate of 23.9%. Similar interrelated factors were grouped using

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a Principal Component Analysis.

Finally, case studies with four banks in Nigeria were conducted to deepen our understanding. The study identified a total of 10 CSF which spanned across strategic, operational, and technological factor categories. These included 'Management Commitment,' 'Engagement of Subject Matter Experts' and 'Multi-Layer Authentication' amongst others. In addition, new CSF such as 'Risk-Based Transactional Controls,' 'People Awareness & Training' and 'Bank Agility via Data Driven Decision Making' were identified. Finally, these CSF were grouped into an e-banking frauds prevention framework. This study was a pioneer study that extends theory to propose a CSF-based frauds prevention framework for banks in Nigeria.

Mat et al., (2013), assessed the fraud prevention mechanisms in Malaysian government agencies.The study provided an indicator on the effectiveness of fraud prevention mechanisms, which facilitate minimizing the fraud risks, implemented by the public sector. The framework of this study was developed based on the fraud triangle concepts which explain how pressure, rationalization and opportunity could be minimized by implementing effective fraud prevention activities such as internal control assessments, training and education, and other organization-widestrategies. The study concentrated on fraud training and education mechanisms. The current studyused a survey method to assess the fraud prevention mechanisms implemented in the public sector.The questionnaire in this study was designed to capture information on the fraud prevention mechanisms adopted by Malaysian government agencies. Specifically, this study focuses on the four training and education mechanisms. adopted from PwC's (2011) Global Economic Crime Survey. They are 1) fraud awareness raising activities; 2) training in ethics or code of conduct; 3)training in privacy principles; and 4) training

to employees involved in fraud control activities. A5-point Likert scale was used to capture the opinion of the respondents regarding the implementation of respective mechanisms. The anchors ranged from "significantly low" (1) to "significantly high" (5). The sum of each score assigned to each item was used to indicate the level of effectiveness of each mechanism. The results show that raising fraud awareness activities, training in ethics or code of conduct, training in privacy principles and training to employees involved in fraud control activities are effective mechanisms for fraud prevention.

Amoh et al., (2021), investigated customers' awareness and knowledge level of fraudulent acts in electronic banking in Ghana. The study employed a well-structured interviewer-assisted questionnaire to obtain data from four hundred clients of a case study bank. The data were analyzed using descriptive statistics. Kendall's coefficient of concordance (W) statistic was also used to track and rank the fraudulent acts reported by respondents in relation to electronic banking. The survey indicated that respondents were aware of most types of electronic banking fraud. Automated Teller Machine (ATM) fraud is the most prevalent fraud that clients are aware of. Institutional concerns, such as inadequate customer education and supervision, are significant contributors to fraudulent electronic banking activity. The most efficient way to avoid bank fraud is to improve security and educate customers on PIN protection. The study examined a universal bank and used data from a single branch to fulfill its aims.

The review of literature on the mobile money fraud awareness campaigns revealed that research on mobile money fraud awareness campaigns is non-existent in Ghana. Thus, this current study will be the first research work on mobile money fraud awareness campaigns in Ghana.

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2.5 Theoretical Framework

This section of the study focuses on theories that underpin the entire study. It discusses two majortheories: persuasion theory and deception theory.

2.5.1 Persuasion Theory

Psychology professor Carl I. Hovland of Yale University, who conducted research there in the 1940s and 1950s, is credited with sparking early interest in the development of a body of knowledge on persuasion theory. The first systematic study initiatives on learning and attitude transformation were ascribed to Mr. Hovland. The science of persuasion theory is ascribed to him and his contemporaries, Wilbur Schramm, Martin Fishbein, Milton Rosenberg, and Icek Ajzen.

Persuasion theory is a mass communication theory that deals with messages aimed at subtly changing the attitudes of receivers. O'Keefe (1990) argued that there are requirements for the sender, the means, and the recipient to consider something persuasive. First, persuasion involves a goal and the intent to achieve that goal on the part of the message sender. Second, communicationis the means to achieve that goal. Third, the message recipient must have free will (i.e., threateningphysical harm if the recipient does not comply is usually considered force, not persuasion). The theory explores how messages are constructed and delivered to influence attitudes, beliefs, and behaviors of individuals.

Modic & Lea (2013) conducted an empirical investigation which focused on mechanisms for complying with frauds. A scale of susceptibility to persuasion was developed, validated, and thenapplied to the phenomena of fraud compliance in two studies. In the first study participants answered questions on the susceptibility to persuasion scale and a series of questions about lifetimecompliance with fourteen

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fraudulent scenarios. The scale was factorized and evaluated for reliability. Four reliable factors contributed to susceptibility to persuasion: influence of authority,social influence, self-control, and the need for consistency. The susceptibility to persuasion scale was then used to predict overall lifetime fraud compliance. Social influence, the need for consistency and self-control all had an impact on universal fraud compliance. In the second study an independent sample of participants filled out the susceptibility to persuasion scale and answered questions measuring fraud compliance for the past three years across nine fraudulent scenarios. The susceptibility to persuasion scale was validated and confirmed. Fraud compliance over the past three years was measured and the results showed that authority, social influence, the need for consistency and self-control all informed fraud compliance over that period.

Dove (2020) provided an in-depth explanation of not only why we fall for frauds and how fraudsters use technology and other techniques to manipulate others, but also why fraud prevention advice is not always effective. Starting with how fraud victimization is perceived by society and why fraud is underreported, the book explored the diverse types of fraud and the human and demographic factors that make us vulnerable. Dove (2020) explained how fraud has become increasingly sophisticated and how fraudsters use communication, deception and theories of rationality, cognition, and judgmental heuristics, as well as specific persuasion and fraud techniques, to encourage compliance. Covering frauds including romance frauds and phishing attacks such as advance fee frauds and so-called miracle cures, the book explores ways we can learn to spot frauds and persuasive communication, with checklists and advice for reflection and protection.

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2.5.2 Relevance of the theory to the study

Researchers and authors employ the theory of persuasion to either evaluate the importance of marketing campaigns or advertisements. Jiafen Zhan (2023) adopted the theory of persuasion to investigate the factors that can influence or contribute to effectiveness of advertisements on socialmedia. Jiafen Zhan (2023), used persuasion theory as the theoretical framework and analyzed threemain elements from Aristotle's rhetorical theory will be analyzed, which are logos, ethos, and pathos. Harjumaa and Oinas-Kukkonen (2007), conducted a study on the essence of persuasion theory in Information Technology Design.

In the context of fraud, perpetrators often employ persuasive tactics to deceive their targets. Theymay use various communication techniques such as framing, social proof, authority, and scarcity to manipulate their victims into falling for their fraudulent schemes. Understanding the principlesof persuasion as used by fraudsters can help individuals and organizations like MTN Ghana tailortheir campaign messages to educate subscribers. Persuasion theory demonstrates how criminals deceive people out of money by using language in subtle yet effective ways. It emphasizes how, contrary to the common perception of the credulous or weak person "falling for" a fraud, fraudsters are quite proficient language manipulators who employ strategies meant to reassure victims and dissemble any reason for alarm.

2.5.3 Deception Theory

Deception theory was developed by Buller and Burgoon (1996) to predict and explain the processof encoding and decoding deceptive messages in interpersonal encounters. The theory of deceptionexamines the process of deception, including how individuals encode messages with agenda to deceive others. Simultaneously, focuses on how

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receivers of these deceptive messages attempt todecode, unveil, and detect the validity of such messages. Whether it is falsifying facts to get an edge during negotiations or speaking a small lie to save face, many individuals tend to be dishonest.While certain deceptions are socially acceptable, others may be dubious from a legal, moral, or ethical standpoint (Masip & Herrero, 2015).

For a variety of reasons, as the description above illustrates, individuals try to twist the truth. A number of academics and professionals have significantly advanced the notion of interpersonal deceit. A theoretical framework known as Interpersonal Dishonesty Theory (IDT) was developedto explain how individuals respond to perceived or real dishonesty in face-to-face communication(Lippard, 1988). The main tenet of the idea is that most people tend to overestimate their capacityfor lying detection (Masip & Herrero, 2015). An analysis of the literature on the Theory of Interpersonal Deception is presented in this work. The main goal of the synthesis is to recognize and analyze the many contributions that academics and researchers have made to the field of interpersonal deception study.

Specifically, Lippard (1988) investigated situations when people lied to one another. Over the course of three weeks, the author recorded occurrences of deception with seventy-five subjects. 940 deceptive activities that were categorized according to the category, frequency, inspiration, and characteristics of the receivers were included in the study. Eighty-one percent of all reported fraudulent behaviors fell into one of the seven categories he defined. The survey also reveals thatthere were 4.2 instances of deceit each week for everyone. The study's findings differ from earlierresearch' trends. Sixteen statistically significant inspiration categories were found in the study.

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Using the parameters of the Interpersonal Deception Theory, Burgoon et al. (1994) conducted research study to investigate the impact of suspicion, the type of deception, the inquiry form, relational familiarity, and competence on efficiency in detecting the truth and lies. The author questioned strangers and acquaintances who provided honest responses and misleading replies, using novices and specialists as distinct groups. According to research findings, accuracy on truthfulness was significantly higher than cheating. However, depending on the sort of deception being performed and whether the interviewer was suspicious or not, learners were more accurate than specialists. The author found that doubt undermined the experts' accuracy. Familiar people showed higher levels of truth-biases, especially when assessors had doubts. The study also showedthat the response's inaccuracy was either increased or decreased depending on the question format.

2.5.4 Relevance of theory to the study

Understanding deception is paramount in assessing the efficacy of mobile money fraud awarenesscampaigns in Ghana. Buller and Burgoon's (1996) Deception Theory and Lippard's (1988) Interpersonal Deception Theory (IDT) offer pertinent insights into the mechanics of deception andthe detection thereof.

Deception Theory, as outlined by Buller and Burgoon (1996), delves into the encoding and decoding mechanisms involved in interpersonal deception, shedding light on the intentional crafting and interpretation of deceitful messages. This framework provides valuable insights into how fraudsters manipulate victims through fabricated information or manipulation, mirroring observed tactics in mobile money fraud (Smith, 2019). Understanding these strategies facilitates the development of awareness campaigns tailored to empower users in decoding deceptivemessages and

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recognizing signs of fraudulent activity.

IDT delves deeper into individuals' responses to deception, highlighting a propensity to overestimate one's ability to detect lies (Masip & Herrero, 2015). This phenomenon holds significant relevance in the context of mobile money fraud, where perpetrators exploit such overconfidence to ensnare unsuspecting users. Campaigns can counteract this by educating users about the limitations of deception detection and emphasizing the necessity of corroborating information and reporting suspicious behavior.

By understanding the tactics used by fraudsters to encode deceptive messages, awareness campaigns can be customized to address specific strategies and equip users with the necessary skills for decoding such messages (e.g., recognizing suspicious phone calls, verifying sender legitimacy). Drawing from the insights of Interpersonal Deception Theory (IDT) and the tendency for individuals to overestimate their ability to detect lies (Masip & Herrero, 2015), campaigns can emphasize the sophistication of fraudsters and advocate for reliance on trusted verification channels rather than instinctual judgments (Lippard, 1988). When evaluating the effectiveness of these campaigns, researchers should consider not only users' familiarity with fraud tactics but also their confidence in detecting deception, enabling a comprehensive assessment of behavioral impact (Buller & Burgoon, 1996).

Overall, Deception Theory and IDT provide valuable frameworks for understanding the dynamics of deception and its implications for mobile money fraud awareness campaigns. By incorporating these theories into the research design, the study can gain deeper insights into the effectiveness of campaigns in mitigating mobile money fraud in Ghana.

2.6 Chapter Summary

The chapter presented significant literature to the subject. The chapter was divided into three sections: conceptual review, empirical review of related literature and theoretical review. The concept of mobile money and mobile money fraud was discussed. Also, the chapter reviewed threetheories: persuasion, deception, and information manipulation. These theories are employed by fraudsters and scammers to outsmart their victims. Finally, the chapter looked at some related works. However, it was discovered that literature on the evaluation and analysis of fraud awarenesscampaigns is limited.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter outlines the methodological approach employed to analyse selected Momo (Mobile Money) fraud awareness campaigns in Ghana. This chapter consequently discusses the research methods was used to fulfil the study's aim. It also discusses the research design, sampling technique as well as data collection and analysis procedures. Finally, this chapter discusses the principles that underpin the selection of methods used for data collection, as well as detailed explanation of the procedures used in analysing the data to answer the research questions, which are:

1. What is the nature of fraud awareness campaigns?

2. How do fraud awareness campaigns help to prevent mobile money fraud?

3. What issues are associated with mobile fraud awareness campaigns?

3.1 Research Approach

This study delves into the symbolic meanings and ideological foundations embedded within MTN Momo fraud awareness campaigns, employing a qualitative research approach. As Creswell (2017) highlights, qualitative methods provide valuable tools for understanding how specific audiences interpret social practices within their unique cultural contexts. Here, the researcher's primary objective is to uncover these meanings organically, without introducing external influences or manipulating the natural environment surrounding the campaigns (Patton & Cochran, 2007). This aligns perfectly with the core principles of qualitative research, as outlined by Lindlof and Taylor (2002). They emphasize analyzing the situated form, content, and lived experiences associated with the campaigns, without imposing rigid mathematical or

formal transformations.

Following these principles, the research was conducted within the natural context of the selected MTN Momo fraud campaign videos. There was no attempt to manipulate or alter the video content.The chosen videos for analysis include Don't be a Mugu (2020), U4Know (2021), MTN Momo Police (2022), Momo Fraud Campaign by Ghana Telecom of Chambers in partnership with MTN Ghana (2022-2023), and Collaboration with Law Enforcement (Police Watch Campaign) (2023).The study also examined the content of the selected videos by describing them richly without employing any statistical or mathematical analysis. Qualitative research methods are diverse, but they all share a common focus on understanding the lived experiences of participants (Creswell, 2014).

This qualitative study, drawing on the insights of Denzin and Lincoln (2018), aims to examine the effectiveness of mobile money fraud awareness campaigns in curbing the menace andpreventing the fraudsters from scamming mobile money subscribers. The purpose of this study isto conduct a detailed investigation of people's thoughts and perspectives on the issue under consideration rather than generalising the study's findings. According to Creswell (2013, p. 5), qualitative research is well suited to studies that seek to investigate complex social phenomena, comprehend participant experiences and viewpoints, and develop new insights and hypotheses. Braun and Clarke (2013) describe qualitative research as "a systematic, rigorous, and transparent approach to exploring complex social phenomena through collecting and analysing data that is typically non-numerical in nature" (p. 5). They underline that qualitative research is more than simply data collection; it is also about making sense of the data through analysis and interpretation.

3.2 Research Design

The foundation of any successful research project lies in its design. This design serves as a comprehensive strategy, blueprint, and structure that dictates the project's trajectory (Creswell, 2017; McCombs, 2019; Yin, 2009). It fosters a critical linkage between the data to be collected and the answers sought to address the research questions. McCombs (2019) underscores the significance of a meticulously crafted research design, emphasizing its role in establishing the parameters for data collection and analysis that are pertinent to both the researcher and the phenomenon under investigation.

In the context of this study, qualitative content analysis emerged as the most suitable research design. This approach provided the framework, plan, and structure that distinguished this researchendeavour. The selection of qualitative content analysis was not accidental but rather a deliberatechoice driven by a specific objective to forge a logical and robust connection between the data to be collected and the conclusions ultimately drawn in response to the research questions. As underscored by Creswell (2017), the selection of a research design is predominantly influenced bya trifecta of key factors: the inherent nature of the research problem itself, the researcher's own background and experiences, and the target audience for the final study.

This research investigates mobile money (Momo) fraud awareness campaigns in Ghana through acase study design. As McCombs (2019) explains, this design provides a structured approach to answer specific research questions. Creswell & Creswell (2017) emphasise the suitability of case studies for exploring intricate social phenomena like these campaigns, which involve various stakeholders interacting in diverse ways. The case study approach is ideal for gaining a deep understanding of

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these campaigns' multifaceted nature and the factors influencing their effectiveness.

Further justification for the case study design comes from the perspectives of Creswell & Creswell (2017) and Yin (2018). They highlight its strengths in exploring the intricacies of a phenomenon and developing new insights. This aligns perfectly with the goals of this research, which aims to understand the role of mobile money fraud awareness campaigns in reducing mobile money fraud in Ghana. Therefore, by employing a case study approach, this research aims to offer a comprehensive analysis of the complexities surrounding these campaigns in Ghana, contributing to a better understanding of their effectiveness in combating mobile money fraud.

3.3 Qualitative Content Analysis

This study utilizes qualitative content analysis (QCA) to delve into the symbolic meanings and ideological underpinnings embedded within MTN Momo fraud awareness campaigns (Mills et al. 2016). QCA offers a valuable approach for researchers to understand social realities through a subjective, yet systematic examination of the messages and narratives conveyed within visual media (Mosley et al., 2018).

As Flick (2014) emphasizes, QCA involves a cyclical and iterative process. This includes two crucial steps: data collection and unit of analysis selection. The unit of analysis refers to the fundamental element of the data that will be categorized during the content analysis process (Millset al; 2016). In this study, individual scenes from the selected videos serve as the unit of analysis. The chosen MTN Momo fraud awareness campaigns were: "Don't be a Mugu" (2020), "U4Know" (2021), "MTN Momo Police" (2022), "Momo Fraud Campaign by Ghana Telecom of Chambers in partnership with MTN Ghana" (2022-2023), and "Collaboration with Law

Enforcement (PoliceWatch Campaign)" (2023). A total of 30 scenes were identified across these five videos, with eachscene constituting a unit of analysis.

To uncover the embedded meanings within these videos, the researcher employed a meticulous approach. This involved repeated viewings of each video (eight times), along with a scene-by- scene analysis. This iterative process allowed for data saturation, ensuring a comprehensive understanding of the content (Nowell et al., 2017). Furthermore, the researcher actively engaged in "data decluttering" (Elo et al., 2017), meticulously sifting through the collected data to identifycore patterns and central meanings.

By employing a rigorous QCA approach, this study aims to provide rich, in-depth descriptions ofthe symbolic meanings embedded within the selected MTN Momo fraud awareness campaigns. This will offer valuable insights into the communication strategies employed to raise awareness and combat fraud within the mobile money ecosystem.

3.4 Sampling Strategy

Qualitative researchers' sampling strategies are guided by the fundamental principle of obtaining rich, in-depth information (Daymon & Holloway, 2011). According to Kusi (2012), sampling is the process of selecting a subgroup for a study. Lindlof and Taylor (2017) define sampling as selecting a group of persons or items from a broader population to represent the entire. The purposeof sampling is to draw conclusions about the population based on sample data. Wimmer and Dominick (2018) describe sampling as the act of selecting a representative subset of a populationfor research purposes. They contend that sampling is significant because it enables researchers toacquire data from a big population without having to investigate the entire population. Denzin and

Lincoln (2018) continue to address sampling in the context of qualitative research. They claim that qualitative sampling is not about gathering a representative sample of the community, but rather about selecting a sample that is relevant to the study subject. The sampling technique of a study can be determined by the study's objectives (Palys, 2008). As a result, in the qualitative research approach, the object or subject chosen for the study, as well as where and when it is studied, are determined by certain criteria that are outlined by the study's purpose. Lindlof and Taylor (2002) also point out that no qualitative researcher can capture every event as it occurs, necessitating the deliberate selection of data sites for a specific study. They also agree that selecting the right sampling strategy allows researchers to make systematic contact with communicative phenomenawhile wasting as little time as possible.

Based on the above assertions, the study employed a purposive sampling technique, specifically criterion sampling. This method was chosen due to the researcher's need to purposefully select videos that captured the dominant messages and underlying ideologies related to MTN Mobile Money (Momo) fraud awareness campaigns.

To achieve this, the researcher selected 5 videos produced by MTN Ghana between 2020 and 2023.These videos were: "Don't be a Mugu" (2020), "U4Know" (2021), "MTN Momo Police" (2022), "Momo Fraud Campaign by Ghana Telecom of Chambers in partnership with MTN Ghana" (2022-2023), and "Collaboration with Law Enforcement (Police Watch Campaign)" (2023). By selectingvideos from different years (2020 to 2023), the study allows for a historical analysis of how MTN'sapproach to addressing fraud has evolved over time. This enables the researcher to identify potential shifts in strategies, messaging, and overall focus.

Furthermore, the choice of videos from YouTube ensures that the selected samples are representative of MTN's public messaging on this topic. YouTube is a widely used platform for video content distribution, and the videos chosen are likely to reflect MTN's most prominent and widely disseminated efforts in fraud awareness. The selected videos were chosen from YouTube,a widely used platform for video content distribution. This makes them easily accessible and representative of MTN's public messaging.

3.5 Data Collection Method

This study delves into the dominant messages and ideological underpinnings embedded within MTN Momo fraud awareness campaign videos. A qualitative research approach is particularly well-suited for this purpose, as it allows for an in-depth exploration of the subjective meanings and symbolic representations conveyed within the videos (Flick, 2014). Within the qualitative research umbrella, document analysis emerges as a valuable data collection method (Polonsky & Waller, 2011).

Polonsky and Waller (2011) highlight the exploratory nature of qualitative data collection methods, emphasizing their role in uncovering underlying motivations and gaining rich insights. Document analysis aligns with this approach, as it involves the systematic examination of existing data sources, such as texts or images (Bowen, 2009). In this context, the MTN Momo campaign videos served as the primary documents for the analysis.

According to Bowen (2009), documents can encompass both textual and visual elements. For thepurposes of this study, a "scene" within a video is operationalized as a continuous narrative segment. These scenes can either be confined to a single location or follow a specific character. Ascene typically concludes with a shift in location,

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stylistic approach, or temporal setting. By employing document analysis and focusing on individual scenes as the unit of analysis, this studyaims to unveil the dominant messages and ideological underpinnings woven into the MTN Momofraud awareness campaigns.

3.6 Document Analysis

This study delves into the symbolic messages and ideological underpinnings embedded within MTN Momo fraud awareness campaign videos. Document analysis emerges as a particularly well-suited method for this exploration, offering a systematic approach to reviewing and evaluating various data sources, including electronic documents such as videos (Bowen, 2009). This methodaligns perfectly with the core tenets of qualitative research, where the primary objective lies in eliciting meaning, fostering understanding, and constructing knowledge through a meticulous analysis of data (Daymon & Holloway, 2011).

The document analysis process employed in this study adheres to the rigorous frameworkestablished by Daymon & Holloway (2011). This framework consists of four key stages, each playing a vital role in extracting meaningful insights from the MTN Momo campaign videos.

The first stage necessitates the identification and selection of relevant documents for analysis. In this instance, the documents encompass the targeted MTN Momo fraud awareness campaign videos. Once the documents are selected, a critical evaluation of their authenticity and credibilityis paramount (Frey, 2018; Leavy, 2014). A key strength of document analysis lies in its unobtrusivenature. The researcher does not influence the data source, thereby strengthening the inherent authenticity of the videos themselves (Frey, 2018).

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Following the meticulous evaluation of the documents, a rigorous analysis of the data is undertaken. This stage involves a comprehensive process of repeated viewings, examinations, andinterpretations of the videos (Daymon & Holloway, 2011). This iterative process is essential for uncovering the deeper meanings and messages embedded within the campaigns. Through this process, the researcher extracts key themes and categories that begin to illuminate the videos' underlying narrative.

The final stage centers on making sense of the extracted themes and categories. This stage emphasizes the construction of rich descriptions that illuminate the symbolic elements andideological underpinnings woven into the MTN Momo campaign videos (Daymon & Holloway, 2011). By employing this systematic document analysis approach, this study aims to unveil the underlying messages and ideological forces shaping the MTN Momo fraud awareness campaigns.This will offer valuable insights into the communication strategies employed to raise awareness and combat fraud within the mobile money ecosystem.

3.7 Data Collection Procedure

The data collection procedure examines how the researcher employs various data collection instruments to collect data for a study. The first is the interview technique. In this case, the researcher treats the document as a respondent or informant who provides relevantinformation to the researcher (O'Leary, 2014). The researcher "asks" questions and then highlightsthe responses within the text. Noting occurrences, or content analysis, is another technique in which the researcher quantifies the use of specific words, phrases, and concepts (O'Leary, 2014). The researcher basically determines what is being searched for, then documents and organises thefrequency and number of occurrences within the document. The data is then organised into categories

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that are "related to the research's central questions" (Bowen, 2009, p. 32).

The data collection process for this study unfolded in several practical steps that mirrored the established theoretical frameworks. The first step involved downloading all five MTN Momo fraud awareness campaigns videos from YouTube using a dedicated software program. Following this initial stage, the videos were meticulously examined scene by scene, adhering to O'Leary's (2014) approach. To minimize distractions and ensure focused analysis, these viewing sessions took place in a quiet, isolated area of a room with headphones utilized for optimal audio reception.

Aligned with the document analysis techniques outlined by O'Leary (2014) and Bowen (2009), a notepad was used throughout the viewing process to capture recurring patterns and elements within the videos that held relevance to the research questions. These notes were subsequently transcribed into a Microsoft Word document and saved on OneDrive account for secure backup purposes.

3.8 Data Analysis

Qualitative research thrives on transforming raw data into rich and meaningful insights. This transformation occurs during the data analysis stage, which acts as a bridge between the collected information and the research objectives. Lindlof and Taylor (2002) aptly describe data analysis as the process of breaking down raw data and meticulously reassembling it to reveal patterns, themes, concepts, and propositions. In the context of this study, thematic analysis emerges as the chosen method for navigating this crucial stage (Braun & Clarke, 2014).

Thematic analysis offers a systematic and rigorous approach for identifying, organizing, and interpreting recurring patterns of meaning within a dataset (Braun &

Clarke, 2014). This method aligns perfectly with the research objective of drawing out and analyzing the core themesembedded within the MTN Momo fraud awareness campaign videos. By employing thematic analysis, this study aims to unveil the underlying messages and ideological forces shaping these campaigns.

The data analysis process in this study unfolds in a series of deliberate steps, meticulously following the framework outlined by Braun and Clarke (2014). The first step necessitates complete immersion in the data. This stage involves repeatedly viewing the collected video content, activelyengaging with the scenes, and fostering a deep familiarity with the overall narrative arc. This immersive process allows the researcher to absorb the nuances of the videos and begin to identifypotential themes. Following this initial familiarization, the process of "coding" commences. Here, the researcher assigns labels or codes to segments of the video data that capture significant concepts, patterns, orthemes (Braun & Clarke, 2014). This coding process allows for the organization and categorizationof the data based on these emerging themes. Imagine a researcher assigning a code like "EmotionalAppeal" to a scene where a character express fear of fraud.

With the initial coding complete, the analysis shifts towards actively searching for themes. This stage involves reviewing the assigned codes, identifying patterns and connections between them, and ultimately grouping them into broader thematic categories (Braun & Clarke, 2014). These thematic categories represent the core messages and ideological underpinnings embedded within the MTN Momo campaign videos. For instance, the researcher might identify a broader theme of"Community Responsibility" after encountering several codes related to characters encouraging viewers to report suspicious activity.

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The identified themes are then subjected to rigorous review and refinement. This stage ensures that the themes accurately reflect the data and avoids misinterpretations (Braun & Clarke, 2014). Braun and Clarke (2014) emphasize the iterative nature of this process, where themes may be further developed, merged, or even discarded as the analysis progresses. This back-and-forth process ensures the final themes are robust and well-supported by the video content.

Once the themes are finalized, a clear definition and name are assigned to each. These definitions and names should accurately capture the essence of the theme and its connection to the data (Braun& Clarke, 2014). For example, a theme identified as "Consequences of Fraud" might be renamed"Financial Vulnerability" to better reflect its broader meaning. The final stage involves weaving the identified themes into a compelling narrative that illuminates the symbolic meanings and ideological forces shaping the MTN Momo fraud awareness campaigns.

3.9 Ensuring Trustworthiness of Study

Trustworthiness is a cornerstone of qualitative research, reflecting the credibility of the findings (Lincoln & Guba, 2000). This study prioritizes trustworthiness by adhering to four key criteria: credibility, transferability, dependability, and confirmability (Anney, 2014). To achieve this, the research employed several strategies. First, I maintained a reflexive journal throughout the process.This journal documented my own biases and assumptions, allowing me to acknowledge their potential influence and strive for a more objective interpretation of the data.

Again, the study ensured data adequacy by including all five MTN MoMo fraud awareness campaigns. This comprehensive approach, known as data saturation, helped capture the full range of messages and themes within the campaigns. Analyzing a

wider selection of materials strengthens the foundation of the research and minimizes the risk of bias introduced by a limited data set.

Finally, I revisited the data throughout the analysis and consulted with experts. This iterative process ensured that my interpretations remained accurate, consistent, and aligned with the data itself. By employing these strategies, the research strives to be credible and transferable to similar contexts, with dependable findings and clear documentation for confirmability.

3.10 Credibility

Credibility, essentially the believability of the research findings, is a cornerstone of qualitative research (Lincoln & Guba, 2000). To ensure confidence in the interpretations presented in this study, I implemented two key strategies from Creswell's (2014) framework for establishing trustworthiness: bracketing and thick descriptions.

Firstly, I employed a bracketing technique throughout the analysis process. This technique, as suggested by Bertelsen (2005), involves distancing oneself from prior assumptions and biases. By acknowledging and temporarily setting aside these potential influences, I ensured that the interpretations presented were based solely on a close examination of the data itself. This minimizes the risk of personal viewpoints or preconceived notions unduly shaping the analysis of the MTN MoMo fraud awareness campaigns.

Secondly, I adopted the use of rich and thick descriptions throughout the analysis (Creswell, 2014). This means providing detailed descriptions of the scenes and activities depicted within the campaign videos. By offering this level of detail, I aimed

to provide readers with a clear understanding of the dominant messages being conveyed in the campaigns. These thick descriptions also explored how the specific codes and conventions typical of music videos were used to reinforce these central messages. Furthermore, they examined the underlying ideologies that these campaign videos sought to promote.

3.11 Ethical Considerations

This research adheres to principles of ethical conduct in qualitative research. Transparency and honesty are key elements in ensuring the integrity of the scholarship (Halai, 2006).

The study involved content analysis of publicly available MTN MoMo fraud awareness campaigns. Since participants were not directly involved, the need for informed consent was waived. However, the research maintains objectivity and sensitivity in data analysis (Bowen, 2009).

The study design ensures fairness and avoids data manipulation. All data sources are clearly identified: the five MTN MoMo fraud awareness campaigns including "Don't be a Mugu" (2020),"U4Know" (2021), "MTN Momo Police" (2022), "Momo Fraud Campaign by Ghana Telecom ofChambers in partnership with MTN Ghana" (2022-2023), and "Collaboration with Law Enforcement (Police Watch Campaign)" (2023). Additionally, the methodology for data collectionand analysis is fully documented, detailing how the dominant messages, music video codes and conventions, and underlying ideologies were identified and examined.

3.12 Chapter Summary

This chapter outlines a methodological approach to to understand the role of mobile money fraudawareness campaigns in reducing mobile money fraud in Ghana. The primary aim is to analyse the impact of these campaigns on user awareness, behaviour, and the reduction of Momo fraud incidents.

The study employs a qualitative research approach, specifically a case study design with qualitative content analysis (QCA) as the chosen method. The researchers analyse five MTN Momo fraud awareness campaign videos selected from YouTube. The unit of analysis is individual scenes from the videos. A purposive sampling technique was used, specifically criterion samplingdue to the researcher's inability to capture the dominant messages and underlying ideologies.

Data collection involved meticulously examining each video scene by scene. The researchers employed document analysis techniques to extract data and then underwent a thematic analysis process to identify recurring patterns and themes within the data. To ensure the trustworthiness ofthe study, the researchers implemented various measures such as credibility, dependability,confirmability, transferability, and authenticity. Ethical considerations were also a major focus, adhering to Bryman & Bell (2007) ten-point ethical principles throughout the research process.

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.0 Introduction

This chapter presents the findings from the analysis of several mobile money fraud awareness campaigns which are "Don't be a Mugu" (2020), "U4Know" (2021), "MTN Momo Police" (2022),"Momo Fraud Campaign" by Ghana Telecom of the Chambers in collaboration with MTN Ghana(2022-2023), and "Police Watch Campaign" (2023) on Mobile Money Fraud. These campaigns were condensed and themes were derived based on the research questions. The findings are presented in the subsequent sub-sections under this chapter.

4.1 RQ1 What is The Nature of the Mobile Money Fraud Awareness Campaigns?

This research question sought to unearth the nature of mobile money fraud awareness campaigns,interpret them, and provide implications orchestrated by impostors posing as genuine service providers. Five themes emerged which are; personal responsibility in financial security, empowerment through knowledge, dedication to counter fraud, best practices and guidance, and amplifying user experiences.

4.1.1 Personal responsibility in financial security

The campaigns address the critical need for users to protect their MoMo Personal Identification Number (PIN) and transaction details in the handling of their transactions. Protecting the PIN andrelated transaction information is for the purpose of preventing unauthorized access and incidenceof fraud. Users are encouraged to be in control of their transactions while keeping the sensitive information confidential in person to help reduce the chance of financial loss and identity theft.

The campaigns are making the general public aware that they need to keep their Personal Identification Numbers (PINs) and other MoMo transaction details safe from unauthorizedindividuals who may access them and commit fraud. This is in line with the extant literature involved in the research of security of mobile money that personal security is a significant prerequisite. Mobile money, initially developed to enhance financial inclusion in East Africa (Asongu & Asongu, 2018; Narteh et al., 2017), has since spread worldwide (Gosavi, 2017; Maurer,2015; Suri & Jack, 2016), making users even more responsible in protecting their information. Inas much as there has been an increase in the number of mobile money users, there have been increasing fraud cases shadowing the practice, emphasizing user vigilance more.

Theories, for example, Persuasion Theory and Deception Theory, have been developed to help explain the reasoning behind an individual becoming a victim of fraud. Developed in 1990, Persuasion Theory developed by O'Keefe describes ways in which scammers formulate complex communications to manipulate their prey through an application of devices involving social influence and authority (Modic & Lea, 2013). Deception Theory, meanwhile, hones in on the issues of message deception and trying to detect those messages. Making it clear that overconfidence characterizes individuals' potential for lie detection, these sorts of theories help underline what the campaigns aim to do with these weaknesses by, in effect, wrapping the messages in notions of personal responsibility and knowledge to avoid fraud (Masip & Herrero, 2015).

There are further reasons, empirically, to be convinced about implementing such protective steps. Mobile money fraud has been found to involve different types, including subscriber and employeefraud, and personal information must be protected to help minimize such risks (Jocevski et al., 2020; Iman, 2018). As mobile money

services grow, the sophistication of the fraudulent activitiesincreases. In this light, continuous user education begets a better alternative and improvement of the system to be at a great advantage in combating this challenge (Dove, 2020; Chin et al., 2022)

4.1.2 Empowerment through knowledge

The campaign puts users in control by providing education on fraudulent activities and trickery soas to help them identify and prevent fraud. Sharing real-life examples of how fraudsters operate enhances vigilance and scepticism associated with cold calls or messages. It also shares accurate information about MTN promotions and protocols to distinguish these from fraudsters.

In the long run, such a campaign will empower mobile money users through knowledge and the best practice to counter fraud and make informed decisions that contribute to a reduction of fraudcases in digital finance. In this regard, the campaigns form a very relevant component of fraud prevention that features in the literature: educating users on common frauds and techniques appliedby fraudsters. Evidence does exist, according to literature, that an informed user can distinguish fraudulent schemes better and stand against such fraudulent schemes. For instance, Dove (2020) articulates that advice on fraud prevention, unless covering the sophisticated techniques and manipulation of fraudsters, normally is ineffective. Therefore, efforts by these campaigns to make people more vigilant and sceptical are consistent with other findings that practical and context- specific types of educations greatly improve the users' ability to detect and prevent fraud (Iman, 2018).

From a theoretical perspective, conceptual insights also back up the line taken by campaigns. Persuasion Theory says that if strategies used by fraudsters in influencing the victims are clear tousers, it is more likely to make users resistant to manipulation

(O'Keefe, 1990). The campaigns, by bringing such strategies into view, are, therefore, concerned with the theory of attitude and behaviour alteration through strategically aimed communication. Besides, the Deception Theory by Buller and Burgoon (1996) offers still more importance to the capacity developed in identifyingdeceptive messages and the shortcomings of interpersonal deception detection in human beings (Masip & Herrero, 2015). With respect to such shortcomings, the campaigns are tailored to equip the users with hints on how they can distinguish a genuine communication from a counterfeit oneand hence the users will be able to decode any deceptive message correctly.

There is empirical evidence that user education is effective at fraud prevention. Researchers haveindicated that adequate educational programs, which include common fraud tactics and prevention measures, reduce cases of fraud (Kilavo et al., 2022; Akomea-Frimpong et al., 2019). The campaigners emphasise the provision of accurate details concerning MTN promotions and protocols, which in turn reflect empirical findings that well-informed users of the genuine servicehave a reduced tendency of being victims of fraud.

4.1.2 Dedication to counter fraud

It is the representation of the watchful police officer, always on the lookout to apprehend the fraudsters, that explains MTN's efforts in fighting fraud in this mobile money ecosystem. This motif stresses that fraudulent behaviours will not go lightly and signals a commitment by MTN toprotect its subscribers. The campaigns, within which "MTN MoMo Police" falls, have adopted a multifaceted approach intended to empower mobile money users in Ghana against fraud.

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According to Larnyoh (2020), education is one of the most integral aspects of fighting mobile money frauds, which these campaigns achieve through illustration of fraudulent tactics in everydayscenarios, hence users knowing the warning signs and being vigilant with their mobile money accounts (Skula et al., 2020).

These campaigns fall in line with Buller and Burgoon's Deception Theory (1996), which focuses on educating users about how to identify deceptive messages. According to the theory of deception, fraudsters use communication techniques to fool their victims, as has been encapsulatedby scenarios within the campaigns showing apparently normal calls trying to elicit personal information. By engendering doubt in unsolicited offers and showing how fraudsters use trust andurgency to get what they want, the campaigns enable users to detect and avoid such activities.

This, according to O'Keefe (1990), aids in coming up with a message for the promotion of safe mobile money practices. The campaigns exemplify this by giving clear and reliable information tothe users about MTN promotions and communication protocols. According to Modic & Lea, (2013), this approach is effective in averting persuasion that may lead to susceptibility to fraud. Therefore, the campaigns arm the user with accurate information to identify MTN communicationsfrom fraudulent attempts or impersonations.

In addition, the campaigns reflect on a study done by Mwanyale (2014) on how important a regulatory framework is in the fight against mobile money fraud. Another scheme that is rather common, which the campaigns addressed, is when fraudsters take advantage of prize incentives by luring victims into prize claims and then conducting misinformation to educate users on the right procedures for claiming MTN rewards, like collecting prizes at MTN offices. It also lends some weight to the argument for

a regulatory framework to be in place, enlightening users on established protocols and thus rendering fraudulent schemes of promising users rewards outside such protocols ineffective.

The emphasis on MTN's official communication channels in the campaigns falls in line with Barker's (2020) study on using online platforms to educate clients in the prevention of e-banking fraud. Therefore, this campaign helps the user identify this contact number—0244300000—whichis a contact number owned by MTN. In the same light, campaigns by the MoMo Police are usinga defined communication channel for educating users, hence giving them a reliable source of information.

4.1.3 Best practices and guidance

The campaigns that MTN Ghana is running in fighting mobile money fraud are some practical steps towards safeguarding the user through strategies and tips that are very critical in reducing fraud risk. This supports the increasing literature pointing to the pervasive problem of mobile money fraud and the effective preventive measures needed. In the context of rapid growth in mobile money services, MTN's Momo, in particular, has turned into a target for many frauds via social engineering and hacking techniques (Akomea-Frimpong et al., 2019; Kilavo et al., 2022). The empirical evidence thus nails the importance of taking fraud issues onboard with some practical advice and security measures, which mirrors the findings by Iman (2018) and Jocevski et al. (2020) regarding the necessity of robust security frameworks and user education in mobile payment systems.

It is reported that the value of mobile money transactions increased from GHS 155.8 billion in 2017 to GHS 564.2 billion in 2020, which underscores the strong impact and growth of this sectorin Ghana (National Communications Authority, 2023). Research

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by GSMA (2022) supports this trend, reporting that globally, mobile money accounts and transactions have risen, thus driving the central role mobile money plays in financial inclusion, especially in developing countries (Wieseret al., 2019; Aggarwal et al., 2020). With great growth comes increased risk: cases of mobile money fraud have surged, with over 4,000 cases under investigation by April 2021 (Nicholas Brown, 2021). This finding is supported by studies pointing out that with the increased usage, there is a corresponding escalation in mobile money fraud (Maurer, 2012; Akomea-Frimpong et al., 2019).

The theories of persuasion and deception present a theoretical background that enables anunderstanding of mobile money fraud. Persuasion theory, particularly Hovland et al. and Modic & Lea (2013) presents insight into how people are being deceived by fraudsters through deceptive messages. This theory agrees with the strategies utilized by fraudsters and exploited in observed mobile money systems (Dove, 2020). It follows that, among others, the susceptibility to persuasionscale, characterized by the aspects of authority, social influence, and self-control, may explain thereasons why users are victims of fraud and underlines the presence of search-driven learning educational campaigns targeted at enhancing such defenses for users (Modic & Lea, 2013).

This is also supported by the Deception theory which looks into the encoding and decoding of deceptive messages to provide a framework that helps in understanding some of the deceptive tactics employed by fraudsters and the challenges in detecting such deceit. Individual findings onoverestimation of abilities to judge somebody's mendacity and the impact of suspicion and type oflie on detection accuracy explain the variability in effectiveness of fraud prevention strategies andthe necessity of alertness and user education (Lippard, 1988; Burgoon et al., 1994)

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4.1.4 Amplifying user experiences

The campaign puts a face on personal experiences with mobile money fraud to have a platform forsharing and learning from others. Through the telling of individual stories, the campaign brings out the shocking extent to which mobile money fraud affects everyone, hence the need to be morevigilant and to take prior measures on personal level. The focus of the campaign on sharing personal experiences about mobile money fraud reflects one major issue that has been identified in the literature—mobile money fraud is surging in incidence and impact. While drawing attentionto these personal stories, this campaign seeks not only to make the public aware of these facts butto enhance vigilance and proactive measures from the public. It is in that regard that Akomea- Frimpong et al. (2019) and Kilavo et al. (2022) have shown that mobile money fraud is increasingin terms of its frequency and sophistication, exposing their users.

In light of the preceding, it shows that it is a common problem by amplification of fraud stories. This echoes concerns voiced in the past with regard to mobile money, such as those by Castri (2013) and Maurer (2012). This is further emphasised by the increase in cases of fraud reported from 278 in the year 2015 to over 4,000 in the year 2021 (Nicholas Brown, 2021), thus being veryreal and on a fast rise.

The campaign's strategy, in sharing personal stories of fraud, draws elements from persuasion theory. As articulated by O'Keefe (1990), persuasion is a form of deliberate communication aimedat changing attitudes and behaviours. By putting across real-life stories, it capitalizes on the factorsidentified by Modic & Lea (2013), namely, social influence and the need for consistency, as factors in susceptibility to fraud. This approach takes into account the idea that personal stories may influence perception

relatively efficiently and encourage preventive perception.

The Deception theory offers insight into ways fraudsters misbehave with their targets. In this sense,the personal stories shared in the campaign help illustrate the devious ways fraudsters use tactics like social engineering and hacking. Thus, it supports Masip & Herrero's (2015) study and that ofLippard's (1988) about the way people decode and detect deceptive messages. Exposure is thus provided to some of the common fraud schemes so that potential victims are better placed to recognize and avoid them.

4.2 RQ2 How do Fraud Awareness Campaigns Help to Prevent Mobile Money Fraud?

Stopping mobile money fraud is reliant on awareness for fraud as it teaches clients about what theusual fraud is and, by the supremacy of knowledge, how to prevent fraud. The followingsubsections explain how these campaigns help to prevent mobile money fraud.

4.2.1 Educating customers about common scams

The " Don't be a Mugu (2020), U4Know (2021), MTN Momo Police (2022), Momo Fraud Campaign by Ghana Telecom of Chambers in partnership with MTN Ghana (2022-2023), and Collaboration with Law Enforcement (Police Watch Campaign) (2023)" campaigns are crucial for educating mobile money users about the various scams and fraudulent activities they might face. These campaigns use mass media outlets, among which are TV, radio, social media, and community-based outreach programs.They are all targeted at some common tactics that scammers employ, such as impersonation in which they identify themselves as entities that are quite close to the individual, such as MTN personnel. Real-life instances train them to observe the patterns of impersonation, such asreceiving calls and messages from strange numbers

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that claim to extend services on behalf of MTN. What these campaigns further help with is warning against the allure of fake prizes or rewards that scammers tend to offer in order for a person to share their information or reveal theirfinancial credentials to an unknown source, leading to unauthorized transactions. By stating that legitimate prize notifications from either MTN or any other well-reputed company will not ask orinquire for any sensitive information beforehand, it makes users more cautious and less likely to be duped by such scams.

The findings of the "Don't be a Mugu" and "U4Know" campaigns on educating mobile money users about scams and fraudulent activities fit with a number of key concepts and empirical studies in the literature on fraud prevention and the psychology of persuasion. Using multimedia avenues:television, radio, social media, and community programs to pass messages on anti-fraud compliments the ideas of Cross & Kelly (2016), which proposed the use of no fine-grained, elaborated, or detailed fraud prevention messages. Cross & Kelly (2016) believed that this kind of prevention message might cause stress on a potential victim and reduce their effectiveness. But they recommended focusing on the most basic preventive behaviours and encouraged protecting personal information and suspecting all requests for money or details. This proof-of-concept approach can be seen in the live illustrations of impersonation and fake prize scams that campaigns have been bringing to the fore: presentations of complex fraud methods in simple and recognizable warning signs that render educational information more easily digestible and actionable (Cross &Kelly, 2016).

The designs of these campaigns show the application of the principles of persuasion theory in thatthey attempt to subtly manipulate the attitudes and behaviours of the mobile money users regardingthe measures used to prevent fraud. Effective persuasion

contains a clear goal, use of communication to reach that goal, and the free will applied by the recipient according to O'Keefe(1990) in persuasion theory. The campaigns are invoking a message that such companies, as supposedly legitimate as MTN, which is now releasing tempting schemes, would have never askedfor information such as pins and passwords from them before. This supports the findings by Modicand Lea (2013), with which susceptibility to persuasion coincides with fraud compliance and three significant factors: social influence, authority, and the need for consistency. The campaigns effectively counter these influences by equipping users with the knowledge to recognize and resistfraudulent tactics.

This finding agrees with Sanni et al. (2023), which stipulated that the use of predictive models andother intelligent software defence mechanisms would play dominant roles in the detection and prevention of mobile money cyber threats. Although the "Don't be a Mugu" and "U4Know" campaigns are primarily involved in user education, they together go hand in hand with the technological approaches put forth by Sanni et al. (2013) in the sense that fraud prevention has toinvolve more than one method. Public awareness, along with improved technological solutions, will be able to combat the problem of mobile money fraud.

The results also align well with Sanni et al. (2023), which underscored the role of predictive modelsand smart software defense mechanisms in detecting and averting cyber threats within the mobile money ecosystem. While "Don't be a Mugu" and "U4Know" campaigns work on the usereducation front, they also support technical measures proposed by Sanni et al., showing the necessity of many remedies in fraud prevention. The public awareness campaigns, along with thetechnological solutions that are of a sophisticated nature, can successfully protect mobile money from fraud.

The campaigns target community-level interventions and are also substantiated by Wilson et al. (2023), who believe that public awareness and resilience are the most important components of fraud prevention. In their research, they found that fraud prevention strategies collaborate with government, non-government institutions, and law enforcement entities to create an impactful andeffective strategy. Cases in point include the "Don't be a Mugu" and "U4Know" campaigns, which are set to get several stakeholders driving on fraud prevention messages across various channels, thus making the public more safe and least vulnerable to fraud.

The strategies of the campaigns are also explained by the theoretical framework offered by the theory of deception, Buller & Burgoon (1996). The campaigns help users to be aware and less likely to be easily deceived by educating them on how scammers encode the deceptive message and how they can decode it and detect the lie. Thus, this agrees with Dove (2020), who investigatedfraud victimization from the role of communication, techniques of deception, and persuasion. It teaches users how to identify the telltale signs of a deception operation, hence arming them with such protective power against fraud.

4.2.2 Promoting security best practices

Awareness on fraud campaigns is a key element in educating mobile money users on matters of security. Users are sensitized on how to guard their personal identification numbers (PINs) and other information used to access and manage mobile money services. They are literally warned against sharing their PINs with anyone: not even a friend, relative, or any agent purporting to represent a mobile money service provider. Besides, campaigns are made in a way that there is a need to do the transactions by one's self rather than leaving it to third parties. Users are warned tomake sure about

whom they are sending their mobile money to and not to give details of his or her account to any number which seems unfamiliar. "Users will therefore be enabled, if the fraud awareness campaign promotes such security practice through advertisement, posters, and educational material on how they can prevent unauthorized access to their accounts and financial information to commit fraud". The users, through such preventive techniques, lower the risks of falling prey to fraud activities with mobile money, therefore sustaining the safety of their transactions with digital finance.

The findings of the importance of fraud awareness campaigns in sensitizing mobile money users on protective measures fit into existing literature on fraud prevention and persuasion theory. According to Cross & Kelly (2016), presently used prevention messages generally have a high level of detail related to potential fraud, which may be too much information for users and actuallydetract from the message. This reinforces the simplification of the messages and focus on the salient actions of protecting the personal identification numbers (PINs), and not engaging in thirdparty transactions, as well highlighted in the findings. Persuasion theory complements thisargument, as it posits that the messages should be clear and concise to enable the users to take reasonable and well-informed decisions on self-protection from fraud.

Similarly, Sanni et al. (2023) pointed out the advanced security requirements that predictive models within mobile money services need in the detection and prevention of cyber threats; thesego far beyond traditional measures. The findings on promoting user-driven security practices through awareness campaigns complement this emphasis on building the capacity of users to guardagainst any financial information challenges proactively. Although Sanni et al. (2023) focused ontechnical solutions, their results highlight the human dimension by proving that the informed useris a very important

first line of defence against fraud.

Little attention to human qualities was paid in the study carried out in Saudi Arabia, merely in thesense that technical measures alone are not enough to prevent fraud and that the cultural, moral, and social factors are also important (Buller & Burgoon, 1996). This is consistent with the findingsthat underscore the need for educating the users in taking personal responsibility for protecting their accounts. The heightened prodding for confirmation of the identity of the individuals making requests for transactions is synonymous with the demands for increased vigilance and distrust thatare the core elements in the deception theory.

This role of awareness in reducing susceptibility to fraud is further substantiated by Modic & Lea(2013) who noted that social influence, authority, and self-control are aspects of fraud compliance. The conclusions of these findings support growing realization that the user should be actively vigilant and avoid external pressures on disclosures of sensitive information. It is thus consistent with persuasion theory, which argues that good communication can substantially influenceattitudes and behaviours, reducing compliance with fraud.

It also referred to Wilson et al. (2023) who mentioned the gullibility of the public toward fraud and called for awareness campaigns to be even more impactful and effective. The content findingshere support this recommendation, given the fact that they focus on providing practical advice easily followed by users, such as not sharing of PINs and personally carrying out transactions. Thisenhances the resilience of users against being easily deceived. Conforming to some of the key principles of fraud prevention and persuasion, it seeks to minimize the possibility that users will fall victim to fraudulent activities.

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4.2.3 Community engagement and outreach

Essentially, it is through such campaigns that MTN takes precedence in engaging with communities directly to help address mobile money fraud effectively. The nature of the campaignsplaces significance on making contact at the grassroots level, where people are most vulnerable to being conned because of limited awareness or access to information. Community engagement activities include holding workshops, seminars, and interactive sessions within areas where MTNhas its operations. It is in such gatherings that mobile money users are put in a real situation and given chances to meet in person with knowledgeable facilitators who would help them learn about the risks of mobile money fraud and how one can ensure their safety. Targeted information on common scams and tricks that fraudsters do to con and swindle citizens is provided to the participants in these sessions. Facilitators relate the content with practical examples and case studies of what the victims have actually gone through, making it all the more relevant and relevantly applicable to the attendees. Community engagement also tends to involve local leaders, influencers, and community organisations to help in amplifying the message to a large number ofpeople. In an effort to build a sense of collective responsibility in the fight against mobile money fraud, these campaigns collaborate with trusted members of the community.

The campaigns on mobile money fraud, with findings that emphasize direct community engagement, therefore rhyme well with the empirical and theoretical literature available on fraud prevention and awareness. The use of workshops, seminars, and interactive sessions at the grassroots level to sensitize people on mobile money fraud takes a cue from Cross & Kelly (2016)who noted that messages on fraud prevention need to be simplified and targeted for effectiveness.Their research showed that when there is too much detail in fraud prevention messages, this has the effect of

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overwhelming people, reducing their capacity to apply such knowledge in real situations. This gap, as identified by Cross and Kelly, the campaigns fill very effectively by providing actionable information through real-life examples or case studies to enhance practical applicability of the strategies aimed at preventing fraud.

The collaborative effort also sets out to fall in line with the findings of Wilson et al. (2023), who insisted on involving trusted community figures in awareness campaigns. Wilson et al. (2023) posited an argument that public awareness and resilience against fraud can be dramatically improved when government and nongovernment institutions are involved in supporting prevention efforts, including law enforcement and community organizations. In the campaigns instilling a feeling of collective responsibility, this mirrors the bigger approach of involving many stakeholders in fraud prevention recommended in the literature.

Even more importantly, Persuasion Theory, concerned with message construction and message delivery, usually influencing attitudes and behaviours, can attach a theoretical basis to those campaigns. In practice, it can be acquired that the campaigns achieved community engagement through the proper application of this theory. According to O'Keefe (1990), to succeed, persuasion needs a clear goal, appropriate channels of communication, and free will on the part of the recipient. These campaigns focus on community-based communication, enhancing ownership and feelings of responsibility among the participating population in the campaigns, hence increasing its chances of behavioural change.

Besides the Persuasion Theory, the Deception Theory also offers a relevant theoretical lens. The campaigns, in some respect, mirror the efforts of Buller and Burgoon, who recommended increasing the community's decoding ability through user education

regarding common scams and tricks employed by fraudsters. By providing this information about how deception functions, theyreduce the likelihood of fraud—another major objective of Deception Theory and of the broader works on the prevention of fraud.

Furthermore, in relation to the amplification of campaign messaging, utilizing local leaders and influencers may relate to the findings of Modic & Lea (2013), who concluded from research that social influence played a vital role in fraud compliance. Simultaneously, working with figures within each community holding some authority and influence, the campaigns tap into pre-established social networks through which to diffuse a credible and compelling message.

4.2.4 Real-life scenarios and role-playing

The campaigns use a general approach of engaging with the communities at the grassroots level inefforts geared toward a practical approach for addressing mobile money fraud. These campaigns consider the need to engage users at the grassroots, where the susceptibility to scams is likely highas a result of low exposure and perhaps even access to information. The common community engagement activities involve workshops, seminars, and other interactive sessions across MTN areas of operation. At these forums, users of mobile money are able to interact with seasoned facilitators who can help them become wiser on the perils of mobile money fraud and the precautions to take. Participants in the sessions are exposed to warranted information about common scams and deceptions by fraudsters. During the sensitization sessions, real-life case examples and scenarios should be used to bring out the practicalities or realities of falling victim to the fraudulent schemes so that the information is realistic and practical to the audience as well.Many community engagement initiatives will

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often join forces with local leaders, influencers, andcommunity organizations to get more traction and reach more people. In the process, such campaigns promote collective responsibility in fighting mobile money fraud through engagement with trusted voices in the community.

The results of campaigns on mobile money fraud, with emphasis on direct community engagement, are compatible with the empirical and theoretical literature on fraud prevention and awareness. Cross & Kelly (2016) who found out that fraud prevention messages must be simplified and targeted, mobilizing workshops, seminars, and interactive user-level sessions is quite helpful in creating awareness on fraud associated with mobile money use. They established that larger amounts of information with the fraud prevention messages have an overload effect on the people, hence reducing the ability of the people to turn their knowledge into reality. The gap identified by Cross & Kelly (2016) can be effectively addressed through providing actionable information using examples from real life and case studies, which in turn makes the fraud prevention approaches described finally more practicable.

Campaign collaborative efforts, which comprise local leaders and influencers, also echo the findings of Wilson et al. (2023) that indicated there is the need for involving trusted community figures in awareness campaigns. Wilson et al. (2023) offered an explanation that increases publicvisibility and resistance to fraud when the prevention efforts are supported by governmental and nongovernmental bodies in the society, including the police and community organizations. The collective responsibility created by campaigns mirrors, in some sense, this more general approachto involve multiple stakeholders in fraud prevention.

Theoretically, therefore, the theoretical underpinning of such campaigns can be linked to the Persuasion Theory, which 'concerns the actual construction and delivery of messages designed tochange people's attitudes and behaviours'. The applicability of these in terms of mobilizing communities is a practical application of the theory. In his coverage of the theory of persuasion, O'Keefe presents that for the persuading process to take place, there must first of all exist a specificand deliberate goal, channels of communication to facilitate such communicating, and a willing recipient ostensibly with the power of free will. The campaigns meet the requirements by doing community-based communication to instil a feeling of responsibility and, therefore, make the members perceive it as a part of their responsibility, thus enhancing the chances of behaviour change.

Deception Theory is another theoretical literature. The campaigns, therefore, can be said to enhance the decoding ability of the community concerning ordinary deceptions and tricks that fraudsters use, as described by Bullard & Burgoon (1996). The campaigns reduce the fraud incidences—one of the goals of the Deception Theory and the larger literature associated with theprevention of fraud—with enlightenment among people about how deception works.

This can be related to the finding by Modic & Lea (2013) that social influence is a critical factor in fraud compliance. The essence of using local leaders and influencers as a means of amplifyingthe campaign message is basically harnessing the authority and influence of community figures towards tapping established social networks with the message being more credible and persuasive.It relates not only to the empirical results but also to the theoretical foundations dealing with howsocial influence could be used to shape attitudes and behaviours in fraud prevention.

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4.2.5 Policy advocacy and regulation

The cooperation of law enforcement agencies with cybersecurity experts typified by initiatives such in the Campaign is the holistic approach in the fight against mobile money fraud. This is characterized by the realization of the need to act in unison against such digital crimes, mobilizingspecialized knowledge and resources from the public and private sectors. The Campaigns do not just equip users to know how tactics of fraudsters change but also how they can be provided with ways of making their financial transactions safe. With this framework, there can be intelligence at good timing on threats as they emerge and enable people and businesses to take proactive action against fraudulent activities. They also tend to encourage a culture of information sharing and mutual assistance in hardening the digital space across law enforcement agencies, cybersecurity experts, and end-users.

The results of this collaboration between law enforcement and cybersecurity experts, crystallized by efforts of the Campaigns, serve to underpin many of the important themes to emerge from both the empirical and theoretical literature in the domain of fraud prevention. To that end, one broad theme covering all these areas in the fight against mobile money fraud corresponds to the work of Cross & Kelly (2016), which was directed at simplifying and making clear prevention messages. Their findings are that, as much as detailed ways of prevention are important, they must be well communicated to be applicable and useful to all. Equally, it is the emphasis of the Campaigns on practical strategies and open communication channels that corresponds with the quest for accessible and actionable information and underpins the role of user-friendly preventive measuresin minimizing fraud risk.

Such prominent voices claim further support for the view that the proposal made in this predictivemodelling is key to leveraging expert knowledge and state-of-the-art tools for mitigating mobile money fraud, in particular. Use of real-time intelligence and expert insights in proactive measuresadopted by the Campaigns against fraud is an indication of where a study aspires for more- sophisticated, data-driven approaches to threat detection. This also supports the findings of Suh etal. (2019), which highlight that it is the integration of prevention and deterrence mechanisms, rather than the technological solutions alone, that provides an appropriate control mechanism. The collaborative framework of the campaigns represents this kind of integrated approach, in which the framework serves to advance both technological and human-centred strategies for fraud prevention.

These findings are further contextualized by theoretical perspectives of persuasion and deception.Persuasion theory, which is advanced by O'Keefe (1990) and Modic & Lea (2013), asserts that thekey role of communication is in influence and shaping attitudes and behaviours. The latter is verycentral in fraud prevention campaigns. The continued effort of the campaigns to raise awareness regarding the evolving tactics used in fraudulent practices through persuasive communication tiesinto this idea: the effective construction of the messages can influence the attitudes of the general public and decrease their susceptibility to fraudulent activity. What is more, the interpersonal dynamics that Burgoon et al. (1994) presented in their theory on deception contribute much in alerting oneself to an intricate scheming at play between con artists and targets and calls for alertness and suspicion in the identification of deceptions and actions following from identification. More than that, the interpersonal aspect of fraudsters' behaviour that the campaigns approach through the establishment of a culture of information-sharing and mutual help is, therefore, called to collective responsibility in

the aspect of protection against fraud.

4.3 RQ3 What Issues are Associated with Mobile Fraud Awareness Campaigns?

Fraud awareness campaigns play a crucial role in sensitizing the general public regarding the risksassociated with fraudulent activities, especially in areas considered sensitive, such as mobile money transactions. These campaigns, however, present some challenges that could undermine their very essence. This section looks at some of the resulting issues of MTN fraud awareness campaigns:

4.3.1 Shaming and victim blaming

The use of the term "mugu" within the campaign points to victim blaming where the methods, such as social engineering, which the scammers use can be concealed or unread; this is something that can even trick knowledgeable people. This characterization is likely to trigger feelings of shame or reluctance among victims to come out to report these scams against them, therefore impeding efforts to curb fraudulent activities. This might further discourage one from seeking helpafter he or she has been conned, thus being easy prey again for the same scam. Shaming strategiesdo not, in the majority of cases, motivate people to change their behaviours, as they evoke defensiveness rather than openness. The better avenue in this is to educate and empower with sound direction to handle one's financial safety. Besides, negative reinforcement through shamingwill also only attach negative connotations to mobile money use, spoiling the benefits that could otherwise be reaped and hindering the very efforts at enhancing financial inclusion.

It emerged from the study that issues related to anti-fraud campaigns, in the use of the word "mugu", only make things worse for the victims as it blames them for their unwary nature, causesembarrassment for people, and separates them from reporting

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the crime and seeking remedies. This fits with the literature on fraud prevention that underscores that approaches must be positiveand constructive, rather than shaming or scaring an individual. For instance, Periansya et al. (2023)found awareness campaigns regarding fraud within the purview of government governance, mustbe geared to build trust and encourage proactive reporting rather than depend on punitive measuresor shaming. Similarly, Ahmad & Mahmood (2013) emphasised that the best strategy of fraud prevention in e-banking not only lies with the technological solution but also with customer education and staff training, suggesting that a heuristic approach is much more functional than onethat stigmatizes victims. The use of shaming language, such as was utilized in the "mugu" campaign, will probably backfire because it does not meet the conditions necessary for effective persuasion, detailed in some length by O'Keefe (1990).

Persuasion theory purports that in order for the message to be effective, the receiver must have free will and not feel coerced or threatened,which is exactly what happens when they are called "mugu." In addition, Dove (2020) cited that fraudsters use people's psychological mechanisms such as social influence and authority to gull the victims. In turn, campaigns that work against such tactics should focus on diminishing the potential of people to fall for fraud, through informative and empowering, rather than shaming efforts. The results also come in line with the empirical research on fraud compliance: according to Modic& Lea (2013), people's susceptibility to fraud is often driven by social and psychological factors. The research findings show how both social influence and consistency can make easy victimization, in a setting where shaming as a response will further exploit such vulnerabilities by leading to isolation and a lack of willingness to get help. It is where negative reinforcement, as witnessed in the "mugu" campaign, could lead to a more general negative perception of mobile money,

much the same way Dove (2020), described the effect of fear-based messaging on fraud prevention efforts that can ultimately undermine the adoption of otherwise valuable financial technologies.

4.3.2 Reactive approach

The MTN MoMo Police Campaign alludes more to a response to suspicious calls and educating subscribers on how to react to such calls, rather than preventive measures like protection of personal information over the phone. The campaign does not have clear guidelines on how to ascertain the different types of fraud or on matters of suspected fraud. Emphasis on quick response comes with limited incorporation of prevention strategies. Such efforts will also be likely to limit instances of fraud if subscribers are trained on how to safeguard their private information and to avoid fraud schemes such as phishing and smishing. Next, clear steps for reporting suspected fraud should be taken, such as contacting the mobile money provider or authorities, while guiding the subscriber on how to document such evidence in case investigations arise.

The focus of the MTN MoMo Police Campaign on reactive measures is in line with empirical findings by Periansya et al. (2023), which focus on the place of fraud awareness in context of fraud prevention. However, Periansya et al. (2023) established that while the awareness is very crucial, it is not an effective independent mediator or moderator of fraud prevention. This means that the MTN campaign, though of great value to the education of subscribers and responding to suspicious calls, is likely to fail in its long-term objective of fraud prevention due to its limited focus on proactive and preventive strategies. In like vein, Ahmad et al. (2013) call for a multi-dimensional approach in the prevention of fraud, one that extends beyond awareness to internal controls, customer education, and organizational commitment. These results reflect

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the need to expand the preventive scope to its campaign with preventive actions and expand training in fraud identification for increasing its impact.

Theoretically, the MTN MoMo Police Campaign can be comprehended with the theory of persuasion. According to O'Keefe (1990), persuasion is treated as a goal-directed action through which communication acts as a deliberative device in changing the addressee's attitudes and or actions and, therefore, the characteristics of reciprocals are likely to exhibit such presentations. Therefore, the reactive strategy of the campaign might not be able to implement the principles of persuasions in line especially regarding a proactive change in behaviours. According to Modic &Lea (2013), vulnerability can be measured using such things as social influence and self-regulationas them being the key factors. This could perhaps add more persuasive impact to the campaign, ina way reducing subscribers' vulnerability to fraud through its relevant guidelines for recognizing and responding to fraud, which would attend to the psychological factors that assure compliance with fraudulent activities.

Subsequently, the Deception Theory, formulated also confirms the encoding and decoding of deceitful messages to be well articulated by the MTN campaign. The theory suggests that "for a participant to effectively prevent success of fraudsters, there is the need to have knowledge of howthe deceivers operate, and more importantly, the victims also need to have deception detect and respond skills." Under the circumstances, in which the current development of the MTN campaignis reactive, the approach could maintain the current form while suggesting the infusion of deception detection training of elements, as doubtful indicated, that…" successful fraud prevention depended on the willingness of the participant to know the fraudsters' approaches.". This campaign will help the subscribers easily decode deceptive

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messages to avoid becoming victims of fraud byeducating them on the particular techniques in fraud schemes and giving concrete examples.

4.3.3 Unrealistic conclusion

While going through the campaigns, one major trend that seemed to set in was a chasm between what is depicted in the scenarios and a realistic outcome of it. For instance, at the close of each story within the MoMo Police campaign, the conmen invariably get arrested, but also crucially at no point does any one story demonstrate a clear connection between those arrests and the complaints made to MTN or the police. Such discrepancies beg the question of how valid and accurate these advertisement campaigns are in showcasing the actual end result of reporting scams or sucker activities. While these campaigns seek to build trust by featuring the successful arrest ofthreatening individuals, this failure to represent a meaningful link between reporting and apprehension can create an impression of detachment from real-world consequences. Results of fraud awareness campaigns, and their special emphasis on the gratuitousness and detachment fromscenes and realistic outcomes, are in line with several empirical and theoretical perspectives fromthe literature.

Periansya et al. (2023) further stressed that awareness of fraud cannot prevent the fraud itself, corresponding to a current gap in the MoMo Police campaign. Whilst the campaigns should be instilling confidence by showing arrests, the fact that they fail to actually link this to some sort ofmechanism to do with a real reporting will cancel out the very intent these campaigns are based on, i.e., fraud prevention. This gap might be a pointer to a much wider concern that was raised byAhmad & Mahmood (2013), who held that, as much as technological measures are put in place, internal controls and customer education are also very instrumental in fraud prevention. This narrative

incompleteness of the MoMo Police campaign confirms that merely showing successfularrests without getting the audience through the underlying processes might not effectively sensitize the public. This will eventually reduce the potential of such a campaign in preventing fraud. In addition, the findings also align with Modic & Lea's (2013) discussion of susceptibility to persuasion, which has important implications for fraud compliance.

The focus on arrests in the MoMo Police campaign might be maximally leveraging the influence of authority, as suggested by Modic & Lea (2013). However, not clearly indicating the link between reporting and arrests weakens the persuasive effectiveness of the campaign, leaving it uncertain whether the actions of the individuals indeed do help to prevent fraud. This agrees withDove's (2020) assertion that fraudsters exploit communications techniques and societal perceptions in their deceptions. Narrative gap in the campaign can ironically strengthen the notionthat when one reports fraud, he or she does not benefit in any form which, in turn, can lead to decreased utilisation of fraud reporting systems by the public. Based on this literature, the presentanalysis makes a step ahead in suggesting the possible theoretical reasons for the findings reportedin this paper, like the use of Persuasion Theory and deception theory studies upon the current findings.

For example, O'Keefe (1990) talked about the role of Persuasion Theory in framing messages that kick off the desired effects on attitudes and behaviours. Overemphasising the campaign on the MoMo Police campaign, trying to convince the public on the importance of reporting fraud, mightfail if the full mechanism of the connection between reporting and successful arrests is not addressed. This omission, therefore, stands in the way of the realization of the persuasive goal of the campaign

as the message is not too convincing to the audience. Deception Theory, as most elaborated by Burgoon et al. (1994), stresses especially how difficult it is to recognize and respondto such deceptions. The lack of an example of how reporting fraud results in the arresting processmay lead to the perception of inefficiency, in turn further reducing trust from the public system and further reducing the possibility of reporting fraudulent activities
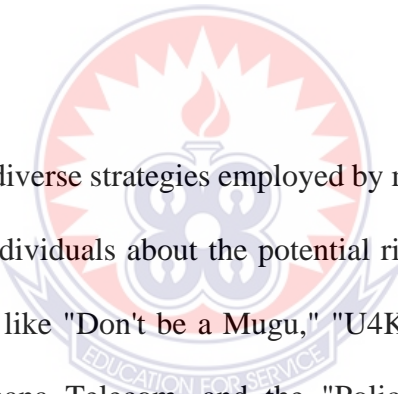
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

Chapter Five presents a summary of the findings, draws conclusions, and provides practical recommendations. It brings together the main points discussed in the previous chapters, explains what the research results mean, and suggests ways to deal with the problems identified. This chapter seeks to summarise the key findings of the research and provide direction for future studiesin the same field. The objective is to enhance comprehension and application of knowledge, ultimately contributing to progress in the field.

5.1 Summary

The study revealed the diverse strategies employed by mobile money fraud awareness initiatives to educate individuals about the potential risks inherent in mobile money transactions. Initiatives like "Don't be a Mugu," "U4Know," "MTN MoMo Police," collaborations with Ghana Telecom, and the "Police Watch Campaign" address various facets of fraud prevention. They stress important actions such as verifying official channels, protecting PINs, being cautious withunfamiliar numbers, securing transaction details, and personally managing transactions. These campaigns actively engage communities, present real-life scenarios, and collaborate with law enforcement agencies to effectively reach vulnerable groups and utilize multiple communication platforms for widespread dissemination. The messaging is designed to be easily understood and relatable, employing language and imagery that resonate with individuals. Furthermore, they provide clear guidance on how to handle suspected fraud situations and ensure that reporting mechanisms are accessible to all.

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Secondly, fraud awareness campaigns play a vital role in preventing mobile money fraud by educating users about common scams like impersonation and fake prize offers. They also encourage security measures such as not sharing PINs and engage communities through workshops and seminars to directly educate users about fraud risks and protective measures. Thesecampaigns often incorporate real-life scenarios and role-playing exercises to help users grasp howfraudsters operate and how to respond effectively. Collaboration between law enforcement and cybersecurity experts further enhances efforts to combat mobile money fraud by advocating for policies and regulations to address the issue comprehensively.

The research identified several significant issues within mobile money fraud awareness initiatives.Firstly, the inclusion of shaming language like "mugu" in campaigns may discourage victims from reporting scams due to feelings of embarrassment or reluctance, thus impeding efforts to combat fraudulent activities and leaving individuals susceptible to further exploitation. Secondly, campaigns tend to prioritize reactive measures, such as swift responses to suspicious calls, rather than emphasizing preventive measures like avoiding sharing personal information over the phone,which could substantially decrease the risk of falling victim to fraud. Lastly, there exists a noticeable disparity between portrayed scenarios and real-life outcomes in these campaigns, particularly regarding illustrating the direct impact of reporting fraudulent behavior on apprehending perpetrators, prompting doubts about the efficacy and accuracy of these endeavoursin conveying the tangible consequences of fraud reporting.

5.2 Policy Implications

The policy implications of the research highlight the need for a comprehensive strategy in tacklingmobile money fraud. Firstly, it emphasizes the significance of backing and expanding fraud awareness initiatives that utilize varied approaches to educate individuals about the potential risksinvolved in mobile money transactions. Campaigns like "Don't be a Mugu," "U4Know," and "MTN MoMo Police" are pivotal in spreading awareness about preventive measures such as safeguarding PINs and confirming official channels. Policymakers are urged to allocate resources to support these campaigns, ensuring they effectively reach vulnerable demographics and utilize accessible communication platforms.

Secondly, there is a call for policy interventions that foster collaboration among law enforcementagencies, cybersecurity experts, and mobile money service providers. Through joint efforts, thesestakeholders can strengthen endeavours to combat mobile money fraud via policy formulation, regulation, and enforcement. Policies should address concerns such as the usage of shaming language in campaigns, prioritization of preventive measures over reactive responses, and the efficacy of fraud awareness initiatives. Additionally, policies should endorse the integration of real-life scenarios and role-playing exercises in educational materials to enhance users' comprehension of fraud risks and appropriate responses.

5.3 Conclusion

The study highlights the efficacy of diverse approaches utilized by mobile money fraud awareness initiatives to educate people about the risks linked to mobile money transactions. These efforts emphasize tasks like confirming official channels and protecting personal data, alongside community engagement and collaboration with

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law enforcement to reach vulnerable groups. Nonetheless, the research also uncovers significant hurdles within these endeavours, including the utilization of shaming language, an emphasis on reactive strategies, and a disparity between portrayed scenarios and actual results. Overcoming these challenges is essential to strengthening the effectiveness of fraud awareness endeavours and fostering a safer digital financial environmentfor everyone.

5.4 Recommendation

It is essential to avoid the use of shaming language, such as "mugu," in awareness campaigns to prevent victims from feeling judged or embarrassed when reporting scams. Instead, campaigns should adopt a tone that promotes a supportive and non-judgmental atmosphere, empowering individuals to seek assistance without fear of stigma or ridicule. By employing neutral or positivelanguage, these campaigns can encourage victims to step forward and report fraudulent activities,thereby promoting a proactive approach to addressing mobile money fraud.

Shifting the focus of fraud awareness campaigns from reactive to preventive strategies is vital formitigating the risks associated with mobile money fraud. Emphasizing proactive measures, such as safeguarding personal information and verifying the legitimacy of official channels, can significantly reduce the likelihood of individuals becoming victims of fraudulent schemes. By educating users on how to recognize and avoid potential scams beforehand, these campaigns empower individuals to safeguard themselves against fraud and contribute to a more secure digitalfinancial environment.

Enhancing the credibility and effectiveness of awareness campaigns requires ensuring that depicted scenarios align with real-world outcomes. It is crucial to illustrate the direct impact of reporting fraudulent behaviour on apprehending perpetrators and

subsequent law enforcement action. By demonstrating the tangible consequences of fraud reporting, campaigns can emphasizethe importance of collaboration between users and authorities in combating mobile money fraud, inspiring confidence in reporting mechanisms and encouraging greater community involvement inprevention efforts.

Customizing awareness messaging to resonate with the diverse concerns and vulnerabilities of different demographic groups is essential for maximizing engagement and comprehension. Campaigns should utilize language, imagery, and examples that are culturally relevant and relatable to specific audiences, effectively addressing their unique needs and preferences. By tailoring messaging to target audiences, campaigns can enhance their impact and effectiveness, promoting greater awareness and adoption of fraud prevention measures among diverse user groups.

Facilitating collaboration among stakeholders, including mobile money service providers, law enforcement agencies, cybersecurity experts, and community organizations, is crucial for strengthening fraud prevention and response mechanisms. By pooling resources, sharing best practices, and coordinating efforts, stakeholders can effectively combat mobile money fraud frommultiple angles. Encouraging information sharing and joint initiatives fosters a unified approach to fraud prevention, maximizing the collective impact of individual efforts and establishing a moreresilient ecosystem against fraudulent activities.

5.5 Suggestions for Further Studies

Researchers can explore how different messaging strategies impact the effectiveness of campaigns.They could investigate how factors like humour, fear, storytelling, and celebrity endorsements influence people's ability to remember information and change

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their behaviour. Additionally, translating materials into local languages and including cultural references could better resonate with specific groups of people.

Incorporating a quantitative study alongside qualitative methods offers a more comprehensive assessment of campaign effectiveness. This entails conducting surveys or experiments to gather numerical data on various aspects such as participants' knowledge acquisition, changes in behaviour prompted by the campaign, and overall impact across a broader population. Analysing these quantitative metrics provides researchers with valuable insights into the scale of the campaign's influence and identifies specific areas where enhancements may be necessary. Such an approach enables a more rigorous evaluation of campaign outcomes and informs future strategies aimed at maximising effectiveness.

In the domain of fraud prevention, research can explore the dynamic nature of fraudster tactics and their evolution over time. Investigating how fraudsters adapt their strategies to exploit vulnerabilities in mobile money systems offers valuable insights into emerging threats and scams. Understanding these evolving tactics is pivotal for developing proactive measures to effectively counteract new fraud techniques. By staying abreast of fraudsters' strategies, campaigns can continually adapt to remain pertinent, thus ensuring sustained effectiveness in combating mobile money fraud. This proactive stance is imperative for upholding the integrity and security of mobile money systems amidst constantly evolving threats.

REFERENCES

Affenito, S. G., Thompson, D. R., Barton, B. A., Franko, D. L., Daniels, S. R., Obarzanek, E., ... & Striegel-Moore, R. H. (2005). Breakfast consumption by African-American and white adolescent girls correlates positively with calcium and fiber intake and negatively with body mass index. *Journal of the American Dietetic Association*, *105*(6), 938-945.

Akanfe, O., Valecha, R., & Rao, H. R. (2020). Assessing country-level privacy risk for digital payment systems. *computers & security*, *99*, 102065.

Akomea-Frimpong, I., Andoh, C. Akomea-Frimpong, A. and Dwomoh-Okudzeto, A. and Dwomoh- Okudzeto, Y. (2019), "Control of fraud on mobile money services in Ghana: an exploratory study", *Journal of Money Laundering Control*, Vol. 22 No. 2, pp. 300-317. https://doi.org/10.1108/JMLC-03-2018-0023

Bank of Ghana (2021). BANKING, SDI AND EMI FRAUD REPORT.

Barker, R. (2020). The use of initiative-taking communication through knowledge management tocreate awareness and educate clients on e-banking fraud prevention. *South African Journal of Business Management*, *51*(1), 1-10.

Britten N. (1999). Qualitative interviews in healthcare. *In* Pope C, Mays N (eds) *Qualitative research in health care*. 2nd ed. pp 11–19. London: BMJ Books.

Buller, David B., and Judee K. Burgoon. "Interpersonal Deception Theory." *Communication Theory6*, no. 3 (August 1996): 203-242.

Burke, J., Kieffer, C., Mottola, G., & Perez-Arce, F. (2022). Can educational interventions reduce susceptibility to financial fraud? *Journal of Economic behaviour & organisation*, *198*, 250-266.

Busuulwa, B. (2016), "Mobile money fraud, crime rate increases in Uganda", available at: www. theeastafrican.co.ke/business/Mobile-money-fraud-and-crime-rate-increase-in-Uganda-/2560-3415786-quaydf/index.html/ (accessed 12 June 2017).

Chatain, P.L., Zerzan, A., Noor, W., Dannaoui, N. and De Koker, L. (2011). "Protecting Mobile Moneyagainst Financial Crimes: Global Policy Challenges and Solutions, World Bank Publications, NewYork, NY.

Chin, A. G., Harris, M. A., & Brookshire, R. (2022). An empirical investigation of intent to adopt mobile payment systems using a trust-based extended valence framework. *Information Systems Frontiers*, 1-19.

Chugh, B., & Narang, L. (2023). *Are Fraud-awareness Campaigns Effective?* Retrieved from DvaraResearch.

Cressey, D.R. (1986), "Why managers commit fraud", Australian and New Zealand. *Journal of Criminology*, Vol. 19 No. 4, pp. 195-209.

Creswell, J.W. and Creswell, J.D. (2017), Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, Sage Publications.

Cross, C., & Kelly, M. (2016). The problem of "white noise": Examining current prevention approaches to online fraud. *Journal of Financial Crime*, *23*(4), 806-818.

David-West, O., Oni, O., & Ashiru, F. (2022). Diffusion of innovations: Mobile money utility and financial inclusion in Nigeria. Insights from agents and unbanked poor end users. *InformationSystems Frontiers*, 1–21.

Di Castri, S. (2013). Mobile money: Enabling regulatory solutions. *Available at SSRN 2302726*.

Dove, M. (2020). *The psychology of fraud, persuasion, and scam techniques:*

understanding what makes us vulnerable. Routledge.

Dowuona, S. N. (2022, 19 February). Ghana's Telecom Industry - Time to Bring in Home-made Players. *Modern Ghana*.

Etim, A. S. (2014). Mobile banking and mobile money adoption for financial inclusion. *Researchin Business and Economics Journal*, *9*, 1.

Franque, F. B., Oliveira, T., & Tam, C. (2022). Continuance intention of mobile payment: TTF modelwith Trust in an African context. *Information Systems Frontiers*, 1–19.

Gafoor, K. A. (2012). Considerations in the Measurement of Awareness. *Online Submission*.

Ghana News Agency (2021, August 14). Let's invest more in customer education to curb mobile moneyfraud- Eli Hini

Global System for Mobile Association (2015). Mobile Money for the Unbanked Mobile money profitability: A digital ecosystem to drive healthy margins. https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/11/2014_Mobile-money-profitability-A-digital-ecosystem-to-drive- healthy-margins.pdf

Hornik, R., & Woolf, K. D. (1999). Using cross-sectional surveys to plan message strategies. *SocialMarketing Quarterly*, *5*(2), 34-41.

Iman, N. (2018). Is mobile payment still relevant in the fintech era? *Electronic Commerce Research and Applications, 30,* 72–82.

Isaac Akomea-Frimpong, Charles Andoh, Agnes Akomea-Frimpong, and Yvonne Dwomoh- Okudzeto, "Control of Fraud on Mobile Money Services in Ghana: An Exploratory Study," *Journal of Money Laundering Control* 22, no. 2 (2019): 301.

Jocevski, M., Ghezzi, A., & Arvidsson, N. (2020). Exploring the growth challenge of mobile payment platforms: A business model perspective. *Electronic Commerce Research and Applications, 40,* 100908.

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunitiesof social media. *Business horizons*, *53*(1), 59-68.

Lippard, P. V. (1988). "Ask me no questions, I'll tell you no lies": Situational exigencies for interpersonal deception. *Western Journal of Communication*, *52*(1), 91-103. Web.

Mat, T. Z. T., Nazri, S. N. F. S. M., Fahmi, F. M., Ismail, A. M., & Smith, M. (2013). Assessing the fraud prevention mechanisms in Malaysian government agencies. *Malaysian AccountingReview*, *12*(2).

Mbutor, M. O., & Uba, I. A. (2013). The impact of financial inclusion on monetary policy in Nigeria. *Journal of Economics and International Finance*, *5*(8), 318-326.

Merritt, C. (2011). "Mobile money transfer services: the next phase in the evolution of person-to-personpayments," Journal of Payments Strategy and Systems, Vol. 5 No. 2, pp. 143-160.

Modic, D., & Lea, S. E. (2013). Scam compliance and the psychology of persuasion. *Available atSSRN 2364464*.

Monika Nalewajek And Radosław Mącik (2013). The Role of social media In Building Awareness ofResponsible Consumption

Mwanyale, P. P. (2014). *The Effects of Regulatory Framework on Combating Fraud of Mobile Moneyin Kenya* (Doctoral dissertation, University Of Nairobi).

Mwanyale, P. P. (2014). *The Effects of Regulatory Framework on Combating Fraud of Mobile MoneyIn Kenya* (Doctoral dissertation, University Of Nairobi).

Nalewajek, M. And Mącik, R. (2013). The Role of social media In Building Awareness of Responsible Consumption.

Narteh, Bedman & Mahmoud, Mahmoud. (2017). Customer behavioural intentions towards the adoption of mobile money in Ghana. *Service Industries Journal.* 37. 10.1080/02642069.2017.1331435.

Pal, A., De,' R., & Herath, T. (2020). The role of mobile payment technology in sustainable and human-centric development: evidence from the post-demonetization period in India. *Information Systems Frontiers*, *22*, 607-631.

Periansya, P., Dewata, E., Sopiyan, A. R., Sari, Y., & Basyith, A. (2023). Whistleblowing, fraud prevention, and fraud awareness: evidence from the Palembang local government of Indonesia.

Pomerleau, J., Lock, K., Knai, C., & McKee, M. (2005). Interventions designed to increase adult fruit and vegetable intake can be effective: a systematic review of the literature. *The Journal of nutrition, 135*(10), 2486-2495.

Rieke, R., Zhdanova, M., Repp, J., Giot, R. and Gaber, C. (2013), "Fraud detection in mobile payments utilising process behaviour analysis", Availability, Reliability and Security (ARES), Vol. 1, pp. 662-669.

Ruma, S. (2019). Role of social media in Creation of Awareness for Sustainable Development Goal in Higher Education. *International Journal of Communication and Media Studies.*

Sanni, M. L., Akinyemi, B. O., Akinwuyi, D., Olajubu, E. A., & Aderounmu, G. A. (2023). A Predictive Cyber Threat Model for Mobile Money Services. *Annals of Emerging Technologies in Computing (AETiC)*, *7*(1), 40-60.

Shaikh, A. A., Glavee-Geo, R., Karjaluoto, H., & Hinson, R. E. (2023). Mobile

money as a driverof digital financial inclusion. *Technological Forecasting and Social Change*, *186*, 122158.

Skula, I., Bohacik, J., & Zabovsky, M. (2020, November). Use of Different Channels for User Awareness and Education Related to Fraud and Phishing in a Banking Institution. In *202018th International Conference on Emerging eLearning Technologies and Applications (ICETA)* (pp. 606-612). IEEE.

Skula, I., Bohacik, J., & Zabovsky, M. (2020, November). Use of Different Channels for User Awareness and Education Related to Fraud and Phishing in a Banking Institution. In *202018th International Conference on Emerging eLearning Technologies and Applications (ICETA)* (pp. 606-612). IEEE.

Smith, R. G., & Akman, T. (2008). Raising public awareness of consumer fraud in Australia.

Sow, A. N. G., Basiruddin, R., Mohammad, J., & Rasid, S. Z. A. (2018). Fraud prevention in Malaysian small and medium enterprises (SMEs). *Journal of financial Crime*, *25*(2), 499-517.

Striegel-Moore, R. H. (2005). Breakfast consumption by African American and white adolescent girls correlates positively with calcium and fiber intake and negatively with body mass index. *Journal of the American Dietetic Association*, *105*(6), 938-945.

Subex (2017). "Service providers combat mobile money frauds," available at: www.subex.com/ subex- helps-service-providers-combat-mobile-money-frauds/ (accessed 4 May 2023).

Suh, J. B., Nicolaides, R., & Trafford, R. (2019). The effects of reducing opportunity and fraud risk factors on the occurrence of occupational fraud in financial institutions. *International Journal of Law, Crime and Justice*, *56*,

79-88.

Suri, T., & Jack, W. (2016). The long-run poverty and gender impacts of mobile money. *Science*, *354*(6317), 1288-1292.

Takyi P. O., Sorkpor, C and Asante G. (2022), "Mobile money for financial inclusion and saving practices: empirical evidence from Ghana", *Journal of Economic and Administrative Sciences*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JEAS-11-2021-0232

Usman, A. K. (2018). *An Investigation into the Critical Success Factors for E-Banking Frauds Prevention in Nigeria* (Doctoral dissertation, University of Central Lancashire).

Verkijika, S. F. (2020). An affective response model for understanding the acceptance of mobile payment systems. *Electronic Commerce Research and Applications, 39,* 100905.

Wilhelm, W. K. (2004). The fraud management lifecycle theory: A comprehensive approach to fraud management. *Journal of economic crime management*, *2*(2), 1-38.

Wilson, M., & Hash, J. (2003). Building an information technology security awareness and training program. *NIST Special publication*, *800*(50), 1-39.