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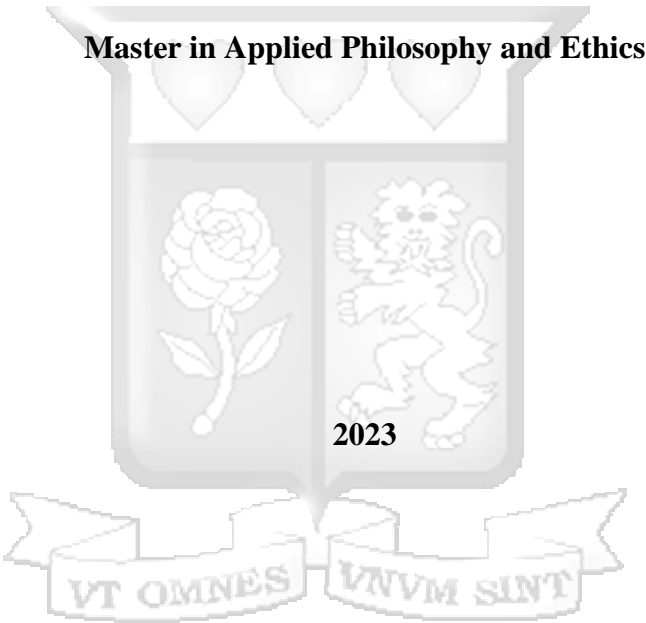
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Adeline Wa-Mwenje.

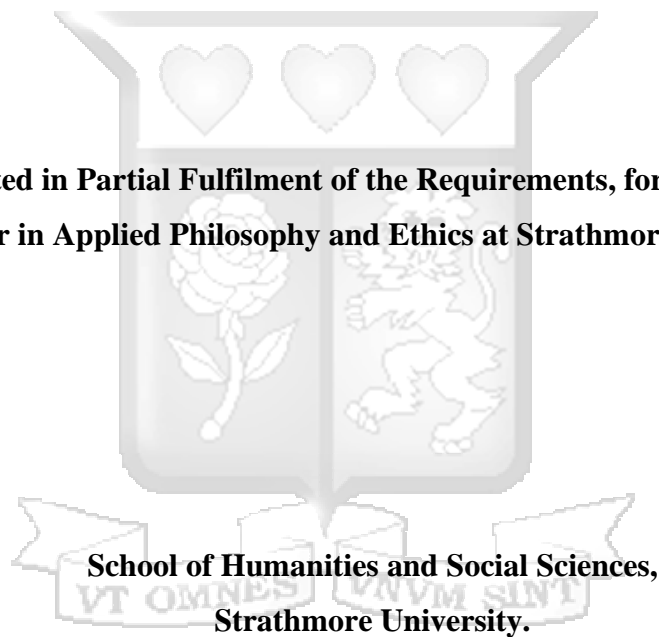
S.N.73669



The Impact of Ethical Backgrounds in the Success of M-Pesa Reversals in 2019.

Adeline Wa-Mwenje.

**Submitted in Partial Fulfilment of the Requirements, for the Degree of
Master in Applied Philosophy and Ethics at Strathmore University.**



**School of Humanities and Social Sciences,
Strathmore University.**

Nairobi, Kenya.

July, 2023

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Student's Name: **Adeline Wa-Mwenje**



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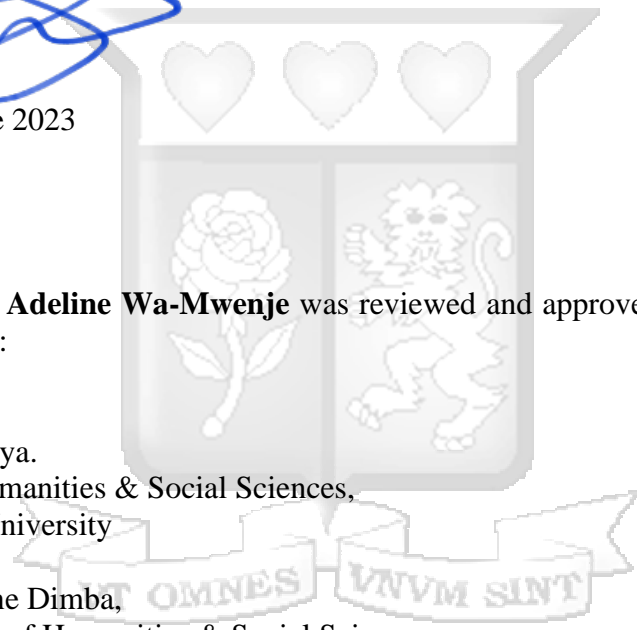
Approval

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Abstract

Mobile money is an electronic wallet that enables people to undertake money transactions of sending, receiving as well as storing money via a mobile phone. Mobile money transactions were introduced in Kenya under the brand name M-Pesa in 2007 by the largest Telco in the country; Safaricom. As of 1st February 2020, Mobile money transactional value for the month of January was at 371.9 billion as indicated by the Central Bank of Kenya.

This study explored the impact of three ethical backgrounds: deontology, utilitarianism, and virtue ethics, on the success rate in the reversing of M-Pesa customer-to-customer transactions, where an error has been made. It reviews the ethics that applies to operations which is within the realm of the company, as well as the role of an individual's character in declining or approving the same; both with and without external influence which points to a desired behavior; what ought to be done.

In adopting the three schools of thought, the research distinguishes between morality -in terms of the decision made as stemming from internal beliefs with the desire to be good vis a vis an ethical decision that is made to abide with a given set of rules or from perceived benefit.

When it comes to decision-making in applied ethics there is a leaning towards two schools of thought: deontological and utilitarian. In utilitarianism the outcome of an action guides the choice made, whereas in deontology, duty that stems from core obligations directs the decision. The study focuses on how Ethics aids in the decision-making process for determining right and wrong; to accept or reject the reversal while analyzing the nature of morality and the schools of thought that guide what the recipient ought to do and why.

The study findings show immense impact. 75.4% of the respondents agreed that ethics/morality influenced M-Pesa reversals in 2019 while 24.6% disagreed. The study also found that Safaricom's ethical policy had limited control over unscrupulous customers who immediately withdrew money sent in error. The study recommends the implementing of measures to mitigate the risk of fraudulent behaviour, such as customer education and awareness forums. The study limitations include limited generalizations of the study findings to other mobile money platforms. Further

research is needed to explore the impact of education and cultural factors on ethical behaviour in mobile money transactions.



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List of Acronyms and Abbreviations

C2C	Customer to Customer
CA	Communication Authority
CBK	Central Bank of Kenya
ID	Identification
KNBS	Kenya National Bureau of Statistics
LNM	Lipa na MPESA
M-MONEY	Mobile money
M-Pesa	Mobile Pesa (money in Kiswahili) Trademark for Safaricom mobile money service.
MSISDN	Mobile Subscriber Integrated Service Digital Network Number.
P2P	Peron to Person
PIN	Personal Identification Number
PLC	Public Limited Company
TELCO	Telecommunication Company



Definition Of Terms

TILL	A mobile register that receives and tabulates mobile money, usually indicated in form of digits
Social Engineering	Psychological Manipulation of people into disclosing restricted Information
Withdraw	The ability of customers to easily remove funds from M-Pesa. i.e., Convert their electronic funds into physical cash at a place and time that they desire



Acknowledgements

I thank God our Father for His providence, direction and wisdom that enabled me to undertake this course and finally complete it. I appreciate my Family for propelling me to the finish line, even when it seemed so far!

My sincere thanks to my supervisor Dr. John Branya who has exuded heavenly patience and continuously guided me, shared insights, and pointed out areas of correction across many months. Without his interaction the research would not have been a success. A special mention to the course coordinator and examination committee that evaluated this work and re-focused it on the intended Ethical backgrounds.

My appreciation to Strathmore University; This course has enriched my life, totally changing my perspective towards many areas. Engrained in me virtues, love for the family and most importantly a deeper understanding of ethics.

The continuous engagement and talks have kept me challenged!



Chapter 1: Introduction

1.1 Introduction

This chapter gives an overview of Mobile money and introduces the ethical reasons that could affect the success rate of reversals. The objectives, research questions and hypothesis are deliberated here. A transitory view of the process of initiating M-Pesa customer reversal is also given, to highlight the existing structure provided by the telecommunication company (Telco).

1.2 Background of the Study

Mobile money is an electronic wallet, where mobile users under a specific Telco or funds operator are assigned a unique Mobile Subscriber Integrated Service Digital Network Number (MSISDN). This is the number that links the electronic wallet to the user and through which the subscribers can send, receive, save, and use Mobile money. This has enabled access to millions of users with mobile money platforms in 95 countries, representing future mechanisms of the banking industry. 89.2 % of the circulating value of mobile money is in customer-to-customer transfer, where Sub-Saharan Africa accounts for 66.1 % of these transactions with a total transaction value of 293 billion dollars as at close of 2019 (Gsm association, 2020). The code of conduct for Mobile money Providers (GSMA, 2015) demands that all mobile money providers shall come up with precise guidelines for handling any reversal that may be initiated within their platforms. The providers are also to guide on how to resolve disputes in the event they are unable to complete a reversal internally. These guidelines differ from country to country due to the differences in legal frameworks.

The research focuses on Mobile money users under Safaricom a Telecommunications company operating in Kenya, whose mobile money brand name is M-Pesa and operates across borders. According to the third quarter sector statistics by the Communication Authority of Kenya, for quarter 3 of the financial year 2018/2019 (Communications Authority of Kenya, 2018-19), M-Pesa had customer-to-customer transfers worth 615B representing 84% of all Person to Person (P2P) transfers done within the country. This demonstrates the scale and value of the study

area and the superimposing motive as to the selection of M-Pesa as compared to other mobile money platforms in Kenya.

A comparison of Safaricom’s customer-to-customer transfers as compared to other key players in Kenya is demonstrated in the table below.

Table 1. 1: Mobile Money Transfer Services

Source; CA state of the industry report Q3, 2019						
Agents	Active Subscriptions	No. of Transactions	Value of Transactions (1000 KSh)	Value of transactions (1000 KSh)	Value of M-Commerce Transactions (1000 KSh]	P2P Transfers (1000bKSh)
<i>M-Pesa</i>	167,083	26,066,448	623,965	1,665,077,507	1,478,641,899	615,900,799
<i>Airtel Money</i>	21,259	4,075,475	4,432	929,041	1,924,136,	1,182,913
<i>Equitel Money</i>	-	1,722,330	155,434	453,742,512	360,218,916	119,048,123
<i>T-Kash</i>	27,766	103,585	248	350,537	92,436	91,677
<i>Mobile Pay</i>	6,976	94,416	367	1,403,209	-	834,197
Total	223,084	32,062,254	784,446	2,121,503	1,840,877	737,058

To use M-Pesa, one must register at any Safaricom dealer, M-Pesa agent or Safaricom shop through a free process that requires submission of the mobile number and presentation of a national ID card or passport. The registration process is completed with the selection of a secret four-digit M-Pesa Personal Identification Number (PIN), which is later used to authorize all transactions by the user. M-Pesa had 22.6 million active users (Safaricom, 2019) with the system processing up to 1,200 transactions per second. This means that a wrong recipient can easily transfer money to other parties or withdraw the cash in less than a minute. This efficiency has been exploited, with the Telco – Safaricom receiving about 10,000 calls daily from customers seeking transaction reversals.

M-Pesa reversal refers to the returning of a previously sent amount of money from the recipient’s mobile number back to the senders or the returning of money from a Buy Goods or Lipa na M-Pesa till back to the sender and lastly from an agent till back to a user’s number. This study focuses on reversals initiated between two M-Pesa users rather than those involving business or agent tills. An M-Pesa customer-to-customer

reversal is initiated upon request by the sender and requires consent from the recipient for it to be fulfilled.

1.2.1 How to initiate M-Pesa customer-to-customer reversals.

Time is of essence when initiating M-Pesa reversals and usually determines whether the sender retrieves his/her funds. M-Pesa customer-to-customer Reversals are initiated by calling customer care on either line 100, 200 or 234. You can also Forward the M-Pesa message with the wrong recipient details and transaction identification (ID) to 456 or use the Safaricom App.

When a reversal is initiated, and the funds are still available in the electronic wallet, they are held, until consent is sought from the recipient. The service time given by Safaricom for the mentioned type of reversal to be affected is 2 hours.

1.2.2 Ethical issues affecting the Success of M-Pesa Customer to Customer reversals.

Fraudulent activity: The ease of M-Pesa transactions, has seen innovative ways devised by crooks in the theft of validation information from customers through Social Engineering. Secondly through baffling customers with claims of prizes in which, many key-in instructions on their devices, ending up transacting their funds.

Lack of consent by the recipient; with the tough economic times for a majority, money received erroneously could be viewed as an answer to a pressing need. If not immediately withdrawn or utilized when consent is sought such users may dishonestly claim that the funds were rightfully theirs. At this point it is beyond M-Pesa's operator - Safaricom to prove the validity of the assertions without adopting an investigative gear, reserved for law enforcement authorities and as such guides the affected parties to seek legal redress.

1.3 Statement of the Problem

An M-Pesa customer-to-customer reversal is considered successful when the sender obtains his Mobile money back to his electronic wallet. Factors that influence the rate of success of reversals are not systematic but majorly morally based. The research sought to determine the most prevalent ethical background that influenced M-Pesa customer-to-customer reversals in 2019, from utilitarian, deontological and virtue ethics schools of thought. Systematically, M-Pesa operates on an efficient platform and there were existing regulations as to Mobile Money during the study period, however not backed by an adequate prosecution legislation. This means that many M-Pesa customers who sent money to the wrong recipient could fail to recover the funds. The study sought which moral system influenced the success of M-Pesa Customer to customer reversals.

1.4 General Research Objective

The general objective of the study is to analyse what type of ethical background is more prevalent in the success of M-Pesa customer-to-customer reversals from the three mentioned backgrounds.

1.4.1 Specific objectives

1. Identify the prevalent ethical background in Safaricom customer-to-customer reversal transactions in 2019.
2. Evaluate Safaricom's Customer Terms in relation to M-Pesa Reversal transactions in 2019.
3. Understand the Ethical background for M-Pesa processes in customer -to customer reversal transactions in 2019.

1.5 Research Questions

1. What is the prevalent ethical background in Safaricom customer-to-customer reversal transactions in 2019?
2. What was the ethical background of Safaricom's Customer Terms on M-Pesa customer-to-customer reversal transactions in 2019?
3. What is the most applicable ethical background for Safaricom processes in M-Pesa customer-to-customer transactions?

1.7 Hypothesis

According to this study, the null hypothesis has been formulated as follows; There is a positive correlation between ethical considerations and M-Pesa reversals in 2019.

1.8 Scope and Delimitations of the Study

The study targeted only those M-Pesa customers who were 18 to 60 years old due to the existing legislation that required all M-Pesa users to register using a national identification card. Secondly, they should have had experience with M-Pesa reversals in the year 2019, when Safaricom hit 30 million customers. The locations targeted are within Nairobi; Kibera, South C /B, Kawangware, Kitengela and Lavington.

Statistical data gathered by a household survey program (Fintech) on a national level, through data analysis over a seven-year period, 2009 to 2016 demonstrates key commonalities and ramifications among MPESA users consisting of women, men, and the youth regarding mobile money usage in Nairobi. Due to these pre-existing harmonies, the selected study location was Nairobi. It has a Population where age, gender and economic ability varies across the different residencies. To ensure that diversity was maintained by the study, the respondents were selected from the different residencies mentioned above. The sample population additionally will be spread across different occupations and income levels.

1.9 Limitations of the study

The most obvious limitation of the study is the vast number of M-Pesa customers. As the study is centred in Nairobi and only focuses on customer-to-customer transfers, the sampled population may not have been homogenous with M-Pesa users in other towns. Secondly, there are limited studies as pertains mobile money reversal and none was obtained on M-Pesa. Related examples were further sourced from Google and Google scholar to study other existing systems, with few studies on reversal disputes. Furthermore, Customer confidentiality and brand perception limit the amount of data the M-Pesa operator -Safaricom avails for public use. Lastly, due to the overall purpose of this study, mixed-method research was adopted which requires more time to plan, implement and interpret.

1.10 Significance of the Study

M-Pesa's growth and success have majorly been due to brand trust, ease of access and perceived utility due to the various financial services available on the platform. (Mwangi, 2011). The shifting from holding cash to mobile money is a substantial behavioural shift. (Leo Van Hove, 2019). The type of investment made in enhancing security of M-Pesa remittances also leads to an increase in household savings (William Jack, *Mobile Money: The Economics of M-PESA*, 2011). Though fraud is a primary concern, the risk can be mitigated through customer education. The same cannot be said of the actual experience of losses from customer errors. There has been no study as to why recipients in some instances utilize the undeserved funds. The fear of an M-Pesa wrong number is further ingrained with the prolonged process in prosecution of the indolent thieves under Kenyan law. In addition, there is no innovative legislation that mandates Safaricom, the M-Pesa operator with compulsory directives on mobile money recovery. This calls for public and private involvement from an ethical perspective to address the risk and vulnerability that would result from any loss of money remitted accidentally. If M-Pesa reversals were oriented with seeking immediate redress through giving prominence to ethical discourse, we would have provided salient insurance to M-Pesa customers in the instance money is sent to a wrong number. This, in turn, will ensure the potential benefits of growing financial

inclusion through Mobile Money are not derailed. Additionally, it will save the mobile money operators operational costs incurred in effecting reversals.



Chapter 2: Literature Review

2.1 Introduction

The aim of this chapter is to appraise earlier assertions about Ethical considerations having a bearing on Mobile Money specifically M-Pesa customer-to-customer reversals. The section reviews sentiments from different scholars on ethics as well as available research material and information on M-Pesa. Further explored is the existing laws and the various Ethical theories that determine human acts. Additional literature was also reviewed on market figures, operational tendencies, and policy framework.

It should be noted that MPESA is a world-wide pioneer service and therefore it is difficult to find worldwide studies on the customer-to-customer reversals success and even less on the customers' ethical background.

2.2 Theoretical Framework

One of our National Values as Kenyans is integrity, which requires one to be honest and truthful in their actions, activities, dealings, and relationships with others (Civic Educators, 2015). However, acts of right and wrong present dissimilar thoughts. The research avoided getting burdened with testing various ethical theories and focused on virtue ethics, deontology, and utilitarianism. The latter two, being schools of thought under Normative ethics, which is a derivative of the word norm that means standard. Moral standards are ways of action that are generally accepted as right in a given population. They are the main ethical systems that seek to describe how people decide when faced with moral dilemmas.

2.2.1 Deontological Ethical Theory; Safaricom's Ethical role in Reversals

Deontology can be defined as the science of Moral obligation that arises from duty (Oniang'o, 1994). It was introduced by Immanuel Kant (1724 -1804), who argued; good is a matter of reverence for duty (Wilkins, 1995). In Deontology, the assumption is that an act is morally good to the extent that it conforms to duty. Deontology asserts that ethical duties should not be based on opinion, groupings, or religious affiliation.

Kant rejects the foundation for other ethical systems and to him, reason alone is the correct foundation. He argues that moral principles that meet the demand of reason are valid for all. He consistently tried to prove that rationality is what allows society to have moral beings.

From a deontological point of view, Safaricom's duty in M-Pesa reversals is not based on character. It is rather evolved from a deliberation on course of action for an operational process. The fact that Safaricom can choose the course of action, they obtain moral responsibility of duty. Kant in the *Groundwork of the Metaphysics of Morals*, argues that the role of reason, is to direct the will –which is neither good nor evil. He states, “It is impossible to conceive anything at all in the world, or even out of it, which can be taken as good without qualification, except a good will.” (Kant, 2013, p. 39).

In Deontology ethical evaluation is at the start. In relation to our study this is where the Sender asks for an M-Pesa reversal. Rather than the outcome guiding the reversal process it is the senders Motive that is first considered. Thus, in this case Safaricom acts out of an intention to fulfil its customer's request meeting his/her loyalty, thereby meeting their ethical obligation. It is not the reversal success rate that drives this role, rather it is the motivation by the company to meet their duty. This brings out the root of disagreement in Kantianism who determines between the recipient and sender who is right and is this choice free from obliteration. Kant asserts that ethical decisions cannot be made by the senses but by testing internally the consistency between ideas, and that ethical laws are not open to negotiation.

2.2.2 Role of Virtue ethics in the Success rate of M-Pesa reversals

In Aristotle's moral theory, he contends that the great good is not pleasure but virtue, which must be made a habit. (Aristotle, 1952). Virtue refers to an inner bias to act in certain ways in given situations. Virtues are good and result in good acts. The Focus of virtue ethics is on people to develop a good character that enables them to make the right decisions. It is a common error to confuse character with personality, while personality is inborn and varies from different individuals, virtues are learned and similar. In the Aristotelean approach for an act to be termed as good, one must know why they are doing it and do it free from an unchangeable character. Thus, accepting

a reversal once does not make an M-Pesa user virtuous, it must stem from consistency, and deep conviction of doing good.

Plato similarly argues that the person functions at three levels, the lowest being ‘appetite which denotes the urges to fulfil our physical needs. This is well exhibited in the scenario where a recipient receives money wrongly but proceeds to utilize the money knowingly to purchase food and justifies it as an answer against starvation. The highest part of the person according to Plato is the reason, which controls the appetite. Plato also discussed justice that makes the appetite to be under reason. For reason to control the spirit, the person must understand why it is good for them to do so, and not out of rules. For instance, for one to accept a reversal they need to do so out of the understanding that the funds were not theirs, whether hungry or in need. Both Plato and Aristotle settle that to be virtuous is a process of growth towards an ideal.

Virtue ethics does not seek to answer the question of what should be done, instead, it seeks to define who a virtuous individual is as it will manifest in behaviour. This distinguishes between character and ordinary obedience to the law. Virtue ethics allows the M-Pesa recipient who receives an unintended amount to balance the personal aspects of the decision with objective ones. It provides room for us to discuss what is right about an act and add desirable qualities to it thus influencing others. Ethics determines the ideologies and rules of duty in society. It relies on the observation of facts and a systematic demonstration of the resulting logical implications. (Oniang’o, 1994). For ethics to be firmly grounded on reversals, there must be universal acceptance of the instinct that right is right regardless of the circumstances. We must accept the firmness of morality to avoid getting influenced by circumstances, tribe and amount involved. It is then imperative that the system starts recognizing the impact of ethical recourse.

2.2.3 Utilitarianism; The Sender or recipient; who determines the success rate.

Consequentialism is a class of ethical thinking, which judges the rightness and wrongness of an act by its consequences. The most common type of consequentialist theory is Utilitarianism, introduced by Jeremy Bentham (1748-1832). It dictates that what is ethical is what achieves the greatest happiness for the greatest number (Peabody, 2008). Although Aristotle cannot be classified as the main contributor to

this theory, he first brings to the forethoughts, happiness as a motivation towards ethical behaviour. An M-Pesa reversal decision affects other people, so seeking the good of only the sender is inadequate. Under utilitarianism, we also consider the recipient whose well-being may be affected by the reversal. In this case, both the sender and recipient are valuable and there is no preference of one above the other as they are both M-Pesa users. This theory acknowledges that happiness for both parties cannot be achieved in all situations. A recipient may agree or fail to agree on a reversal, and the sender should accept. – the only self-rejection which utilitarianism applauds is devotion to the happiness of others. Therefore, sacrificing our request to the benefit of more brings greater happiness.

In M-Pesa reversals, Utilitarianism rebels from authoritarian structures it states that truth is discovered through observation and verified by the senses and as such cannot be brought about by coercion. Secondly, it does not judge acts by their abiding by rules or law, instead by the results. Utilitarianism seeks to know what choices lead to the greatest amount of happiness. For example, “should I return this M-Pesa money, or should I settle a debt,” here the recipient weighs his decision perhaps through propinquity –returning the money has greater benefits immediately. He could also look at extent– have the greatest benefit to the greatest number of people as both he and his creditor would be happy.

This theory looks convincing due to three reasons. First, it links ethical choices with happiness. This means that it naturally opposes that which causes pain. The second is that it has some degree of adaptability. It can be applied to both the Sender and recipient. While our happiness is determined by our decisions, we also consider the happiness of others. Lastly, it seeks those results be observed and measurable which helps in keeping subjective elements from influencing ethical decisions.

2.3 Empirical literature review.

2.3.1 Reversal systems

There are numerous existing mobile platform systems, for instance, that of PayPal.

In this scenario, money is routed through a bank account from a buyer to a seller. For a buyer to get a reversal they initiate a complaint, which the bank emails to the seller. During this investigation period, the money is withdrawn from the seller’s account. If

the complaint is nullified the funds are released back to their account. (PayPal, 2018). Regionally we can use a study on Somaliland, (Stremlau, 2015). there is a lawless structure for mobile money resolution operator Zaad under Telesom, Sharia courts and traditional elders play an active role in reversals. Mobile money in Somaliland operates solely based on trust and not a strengthened infrastructure.

The mobile money operator, Zaad unlike M-Pesa has the unchallenged authority to freeze money in a user's account, block accounts and return money from recipients to original senders, without the recipient's consent. The hybrid system of resolution involves elders who intervene solely based on *Maslaha*, which refers to the peaceful and immediate resolution of disputes to reach a settlement, which is an agreement and signed. This makes it the most creative reversal dispute resolution in Africa.

M-Pesa's popularity in Kenya is driven by a sizeable unbanked population and a relatively large informal sector with equally lower literacy levels. This means that trust is also a motivation to using M-Pesa. (Mwangi, 2011). However, this does not deter reversals. The aggrieved always feel that M-Pesa recipients who withdraw or utilize funds that were erroneously sent to them, should have an equal amount recovered from their electronic wallets, whenever they receive or deposit funds. Thomas Hobbes (1588-1679) holds the natural state of man as utterly selfish and in a state of war, and that a civil government is necessary to the social order providing supreme authority (Valentine, 1900).

The Central Bank of Kenya (CBK) under act 34 Part VIII, directs that sent money cannot be reversed without the recipient's consent. Safaricom has no jurisdiction to investigate the true ownership of funds. In addition, Kenya's Mobile money platform has two regulatory bodies. The Central Bank of Kenya and the Communication Authority act as the major bodies that monitor M-Pesa operations providing guidance through various parliamentary acts. We lack a comprehensive legal Act and a simpler structure to deal with the different scenarios and lower denominations of reversals. A study done on the regulation of mobile money transfer in Kenya revealed that there is an opportunity in enacting new statutes to deal with the inefficiencies of the existing acts (Ronald, 2014). The convergence of telecommunications and banking into mobile money left a gap where policies were not specific to the needs of mobile money transfer. The revision of the computer and cyber security acts (Act of Parliament, 2018) section 34 targets all those who purposefully and with malicious or fraudulent intent conceal transactions of money sent in error.

A case in hand was December 2017, where Margaret Njeri was charged and jailed in a court in Embu for 6 months in lieu of a fine of KShs. 40,000. After inadvertently receiving KShs.27,140 through her M-Pesa account, she was accused of theft by Mr. Richard Mbui, who had erroneously sent her the funds (The Star, 2017). More recently Stanley Irungu was charged with theft of KShs. 39,000 sent after he utilized funds sent to his phone erroneously by Millicent Atieno on 22nd of June 2019. (CitizenTV,2019). The lengthy process of litigation puts this beyond the reach of many distressed users. Solely relying on given statutes and clauses in determining disputes arising from M-Pesa reversals has not improved the success rate.

Behavioural ethics is characterized as the examination of regular and foreseeable methods through which individuals form moral judgments and evaluate the moral conduct of others, even if such actions contradict common sense and the collective welfare of society (Bazerman & Gino, 2012). This research seeks to prove that with ethical inclusion the transaction is considered wholesomely, rather than based on clauses and this would greatly improve the success rate of M-Pesa reversals.

2.3.2 Safaricom's Customer Terms, on customer-to-customer M-Pesa reversal transactions

There is a flawed assumption that Safaricom should complete all reversal requests presented to it. The aggrieved always feel that M-Pesa recipients who withdraw or utilize funds that were erroneously sent to them should have an equal amount recovered from their electronic wallets. This has been limited by the CA, which forbids unauthorized access to customer accounts (National Council for Law Reporting, NO. 39 OF 2011). It is difficult to determine the total number of reversals presented due to Customer privacy laws and convergence of supervision by CBK and CA. The other key mobile money players in the country- Airtel and Equitel do not provide data on reversals. This mirrors their counterparts in the banking industry who also do not provide for the same as it is not an income flow activity, making getting accurate statistics in the industry extremely difficult. Secondly, Acts and policies that would enhance reversals take years to formulate and implement. The structure of our judicial system and court process also means for customers with lower denominations of reversals, seeking justice becomes elusive as the cost would outweigh the loss.

Safaricom's role in M-Pesa reversals is based on duty. According to the Safaricom Customer terms (Safaricom, 2012) under the M-Pesa ACCESS RESPONSIBILITY, it is stated;

6.3 "You are responsible for all instructions given to Safaricom in relation to your M-Pesa account."

8.13 "A transaction once completed is final and irrevocable. as such Safaricom shall not be under any compulsion to reverse any transaction."

8.14 "Safaricom will not be compelled to refund or compensate the sender if the E-Money is sent to a recipient mistakenly or in error or fraudulently or under duress and subsequently redeemed for cash or otherwise spent by the recipient of the mistaken, erroneous or fraudulent transaction and you hereby agree to hold Safaricom harmless for any losses arising from a mistaken, erroneous or fraudulent transfer of funds or any transfer of funds from your account effected under duress or under coercion or criminal force."

By agreeing to be an M-Pesa user, one accepts the customer terms and conditions and thus indemnifies Safaricom of any obligation. The remaining recourse is a judicial process or an ethical mediation whereby the sender reasons with the recipient. Hobbes holds there is no derivation of good and bad acts other than the law and that moral obligation originates from the law given by the majority (Rickaby, 2005). His thoughts are in congruence with those of Aristotle who is hard upon the masses, likening them to brutes who must be governed. The law provides punishment which instils fear and stimulates the conscience to discern and abhor the crime.

2.3.3. Establishing the Impact of ethical grounds for M-Pesa customer-to-customer reversal transactions.

The need to assess the intentional deliberation of ethics of reversals has never come up. In reversals, individuals make a trade-off between ethical behaviour and serving their own interests. In prior studies, there has been the tendency of studying patterns of unethical behaviour and unemotionality, where they would criticize similar behaviour in other circumstances. Additional proof of our ethical inconsistencies is presented over research that demonstrates how our ethical choices are influenced by how information is presented. The findings reveal that individuals are more inclined

to act unethically to prevent losses than to acquire gains. This study also reveals the alarming extent to which people tend to overlook the unethical behaviour of others. (Bazerman & Gino, 2012).

Another aspect that leads people to ignore the wrong refusal of reversals would be the presence of intermediaries. In this case, intermediaries would be the CA and Central Bank of Kenya who maintain that sent mobile money belongs to the recipient, which in some instances supports the unethical withholding of money.

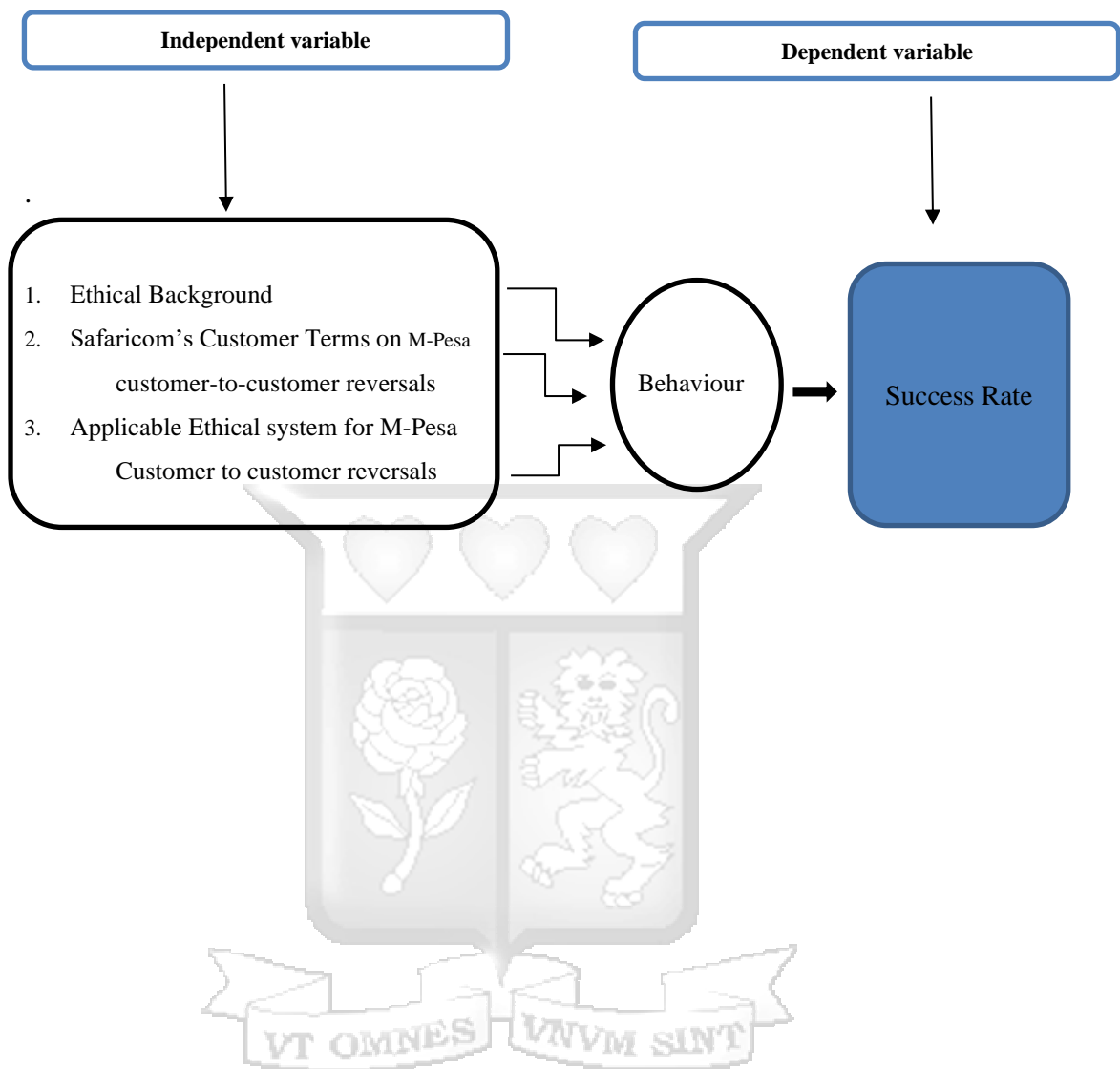
2.4 Conclusion

The empirical research shows that there are no clear statistics on customer-to-customer reversals, however, there exists an ethical working reversal system like that of Zaad. Studies on ethical behaviour could be related to the willingness or reluctance to accept a reversal. The study seeks to define the ethical factors that lead to acceptance of reversals thus reducing disputes.

2.5 Conceptual Framework

The ethical approaches that could influence reversals; Deontology, Utilitarianism and Virtue Ethics theories will represent the independent variables of the research, while M-Pesa reversals success rate will represent the dependent variable. The ethical schools are thought to have a direct influence on how recipients will react to a reversal request.

The questionnaire (Appendix A) will attempt to get responses that indicate the success rate of M-Pesa reversals. The research will therefore seek to establish which of the three approaches to ethics is predominant in the M-Pesa reversals with the methodology described in the next chapter.



Chapter 3 Research Methodology

3.1 Introduction

This chapter outlines the structure of how the research was undertaken. It discusses the research design, target population, sampling methods, data collection procedures and analysis. It also delves into data validity and the process of exploring the impact of ethical backgrounds on the success rate of M-Pesa reversals.

3.2 Research Design

The research design refers to the blueprint of the investigation that directs the different stages of the study and addresses the research questions. It outlines the specific methods and techniques to be used in collecting and analysing data, while also setting the criteria for evaluating the research outcomes. The ultimate goal of a well-crafted research design is to ensure that data is collected and analysed in a manner that aligns with the research purpose. Qualitative data was collected using a questionnaire. The use of open-ended questions was to boost the collection of personal outlooks on the subject matter.

Exploratory research was used to examine the impact of ethical considerations in M-Pesa reversals, with special emphasis on the success reason. This was the ideal method for the discovery of deeper insights, with M-Pesa reversals being a limited area in terms of prior studies. Further research was undertaken using prior publications on M-Pesa, Safaricom annual reports and websites to gather further insights that aided the study.

A positivist approach was used in this study. This model assumes a single, objective reality which is fragmentable into different components which are distinct observable concepts that can be inferred from behaviour (Olive Mugenda, 2003)

3.3 Study Population and Sampling

The definition of a population refers to a group of people who share similar observable attributes, as described by Mugenda (2003). The targeted population was MPESA users in Nairobi, the capital city of Kenya. The choice of the city was based on a prior

study on M-Pesa usage which showed consistency in sending and receiving patterns in Nairobi (Loretta Michaels, 2011). To ensure a good respondent mix based on factors like; age, literacy levels, gender and income levels, the population was divided into strata consisting of low-, middle- and high-income neighbourhoods as per Housing report by real estate firm, Hass Consult in 2019. The sample was randomly selected from MPESA users from low income areas of Kibera and Kawangware (Mitullah, 2003), Middle income areas of South C /B and Kitengela and finally a high-income settlement area of Lavington (Hass Consult , 2019). The target respondents were the M-Pesa users within these areas who had either requested or accepted an M-Pesa reversal in the year 2019.

3.4 Description of Study Sample and Sampling Procedures

The sample can be described as an accessible population from the target population. (Olive Mugenda, 2003). The research adopted purposive and stratified random sampling. This sampling techniques represent both probability and non-probability methods, as this was the mixed-method research. The Purposive technique allowed the researcher to only use individuals that met the objectives of the study; those who had reversal transactions in the year 2019. On the other hand, the stratified random technique was used to allow the researcher to select the respondents in subpopulations as indicated by the different residencies. The sample population was 300 participants comprising of 100 participants for each of the income category of the neighbourhoods.

The selection of the respondents was based on the following criteria: first, the respondent had to be an M-Pesa user. Secondly, the M-Pesa customer had to have made a reversal transaction in 2019. The final consideration was the availability and willingness of the respondents who consented to participate in the study. The questionnaires were administered using both online and face-to-face interactions/methods.

3.4.1 Limitations of the sampling procedure

According to the Communication Authority third quarter sector statistics 2018, Safaricom through M-Pesa handled 84% of the P2P transaction in the country. The population of the country as given by the world bank was 49.7 million, with Nairobi

having a historical figure of 4 million as at 2015. The study population number and environment may not accurately represent the range of behaviours found in the larger population of M-Pesa users.

3.5 Description of the Data Collection Instrument

The data collection instrument used in the study was a questionnaire where each query was designed to address the objectives of the study. It was designed with a picture of the final analysis in mind and the large area to be covered. Some respondents were contacted via e-mail. The questionnaire contained both structured and unstructured questions as the concept of ethics could be misrepresented. The word right was used to demonstrate the intended meaning. For the structured questions, the research used brief questions which made it easier for the respondents to understand. The questions took a positive connotation to avoid unreceptive feedback and ensure responses even from the sampled population with different opinions. The questions avoided leading the respondents towards the hypothesis and sensitive questions which could encourage concealment of information. As the target population stretches across all backgrounds unassuming words were used so that the research could get respondents from all literacy levels.

To give a background to the research area, a summarized example of an M-Pesa dispute that led to litigation was shared to prepare the respondents. In the structured questions, each respondent was required to select one of two possible responses, this is to ensure they are part of the targeted population.

- i. To what extent were reversals successful based on ethical consideration in 2019?
- ii. What was the ethical background of M-Pesa customers who accepted reversals in 2019?
- iii. To what extent was ethics a factor in Safaricom customer service operations in 2019, in regards to customer-to-customer reversals?

3.6 Description of the Data Collection Procedure

Given that not much research had been done towards M-Pesa reversals, the researcher was required to develop a work plan that details the logistics to cover the residencies of the respondents to give a good representative sample.

The questionnaire was pre-tested amongst the researcher's friends and family to observe if it would be useful in collecting relevant data that addressed the objectives of the research. This also helped the researcher to assess the average time taken to administer the questionnaire and determine the number of enumerators needed. During the pre-testing period, the questionnaire was also shared via email to various respondents to access the practicality of using this model.

3.7 Description of the Data Analysis Procedure

The tabulation of respondent's data required a quantitative analysis as well as analysis of their motives using a sequential exploratory design. The numerical data was gathered, organized, and subjected to various statistical and graphical methods, before being interpreted. This enabled the researchers to verify the coherence and consistency of the findings in relation to the research goals. For the qualitative data, it was organized into categories that were based on recurring reasons for accepting or declining M-Pesa reversals and subsequently getting the total per school of thought. The researcher concentrated on establishing the relationship between these categories and how they were distinct from each other through regression analysis. An analysis of the responses was done, and tables and graphs derived. This contributed to the writing of the final report.

3.8 Ethical Considerations

The researcher adhered to etiquette standards and avoided imposing the questionnaire to respondents. Permission was sought through an email outlining the intent of the questionnaire. All participants were treated with respect and professionalism despite their economic background, literacy levels area of residence or length of response time.

As money is an emotive issue the researcher tried not to be too intrusive or judgmental of respondents. The Researcher respected the rights of respondents to confidentiality,

Theoretically, the research acknowledged all cited references and researched work that contributed to the area under research.

Finally, ethical guidance and agreement of the Strathmore Ethical Committee and of The National Commission for Science, Technology and Innovation was sought.



Chapter 4: Data Analysis and Research Findings

4.1 Introduction

This chapter contains analysis of data collected and the presentation of research findings. The data collected was first described and a suitable coding system adopted for easier analysis. The responses for each research objective were assessed in terms of identification of the prevalent ethical background in Safaricom customer-to-customer reversal transactions in 2019. The chapter undertakes a correlation analysis as well as regression analysis to determine the relationship of the impact of ethics to mobile money reversal success .

4.2 Response Rate

There were 300 participants targeted in this study. The study however was able to collect 187 complete questionnaires that were completed by the respondents, which therefore make a response rate of 62.3%. A 60% or above response rate is considered adequate and appropriate for undertaking statistical analyses and undertaking inferences about the population from the sample (Mugenda & Mugenda, 2005).

4.3 Reliability Test

Cronbach's Alpha was utilized to conduct a reliability assessment of the questionnaire. According to conventional standards, a Cronbach's Alpha score of 0.7 or higher is deemed to be dependable and consistent in executing the evaluation, thereby enabling its application in statistical analysis.

Table 4. 1: Cronbach's Alpha

Variable	Cronbach's Alpha	N of Items
Ethical Background	0.74	4
Safaricom Customer Terms	0.76	3
Ethical System- Processes	0.82	4

Table 4.1 indicates that the coding system and the questionnaire were reliable for each variable of the study as they had Cronbach's Alpha of over 0.7.

4.4 Descriptive Statistics

The descriptive statistics show the mean, standard deviation, and mode of the frequency of the responses, to describe the data collected from the respondents. The mean expresses the average response of all the respondents while the mode explains the response that was most popular with most respondents. The standard deviation expresses the extent to which the responses varied from one respondent to the other. The responses are expressed for each of the variables as well as the background information collected from the respondents.

4.4.1 Background Information of Respondents

The researcher began by explaining each part of the questionnaire to the respondents, while being careful not to influence their answers. The respondents were then given the chance to ask any questions they had, and any clarifications were provided. The researcher then obtained consent from the respondents, informing them that they had the right to change their minds at any point during the questionnaire. Informed consent was obtained from all participants.

Gender was recorded as either male (coded as 1) or female (coded as 0), while age groups were categorized as follows: 18-30 years (coded as 1), 31-40 years (coded as 2), 41-50 years (coded as 3), 51-60 years (coded as 4), and over 60 years (coded as 5).

Respondents were also asked about their length of usage of M-Pesa services before 2019, with 1-3 years coded as 1, 3-9 years coded as 2, and over 10 years coded as 3. Finally, the respondents' highest level of education was assessed and classified as primary school (coded as 1), secondary school certificate (coded as 2), technical training (coded as 3), or university (coded as 4).

Table 4. 2: Frequency Table on Background Information

		Statistics			
		What is your gender?	Select an age group that applies to you	How long have you used MPESA?	What is your level of Education?
N	Valid	187	187	187	187
	Missing	0	0	0	0
Mean		.44	2.07	2.62	3.48
Mode		0	2	3	4
Variance		.248	.844	.301	.702

Table 4.2 indicates that the mode of gender of the respondents was 0 indicating that most of the respondents were female as compared to male. The mean was 0.44 which is slightly below the half mark of 0.5, indicates that female respondents were slightly higher than male counterparts.

The age-group that was predominant among the respondents was 31-40 years as the mode was indicated as 2. Most of the respondents had used M-Pesa for over 3 years as the mean was 2.62 with a variance of 0.301. A good percentage of the respondents had attained university degree as they had a mode of 4 and a mean of 3.48 with a high variation of 0.702.

4.4.2 Ethical Background

Utilitarianism, deontology, and virtue ethics are three of the most well-known and influential ethical frameworks. While they all aim to provide guidance on what is right

or wrong, they differ in their ethical background, their basic principles, and their approaches to ethical decision-making.

Utilitarianism is a moral theory that was initially presented by Jeremy Bentham and subsequently developed by John Stuart Mill. According to utilitarianism, the morality of an action is determined by the degree of joy or happiness it generates, as well as the amount of pain or suffering it prevents or reduces, for the largest possible group of individuals impacted by the action.

Deontological ethics is an ethical framework that is based on rules and duties. This ethical framework was first articulated by Immanuel Kant. Deontological ethics holds that some actions are inherently right or wrong, regardless of their consequences. Actions are considered right or wrong based on whether they comply with certain moral rules or duties.

Virtue ethics is an ethical framework that is based on the cultivation of virtuous character traits. This ethical framework was first articulated by Aristotle. Virtue ethics holds that actions are right or wrong based on whether they reflect the virtues or vices of the person performing them.

The questions that were used to determine which ethical background was mainly prescribed by the respondents included the number of reversal requests made or received by the respondent. Whether the reversal requests were successful or not. The probable actions that would be undertaken by respondent if a recipient failed to return M-Pesa funds sent, and the probable reason why the respondent thought that Kenyans are more likely or less likely to refund mobile money sent in error.

The responses by the respondent that highly focused on happiness/pleasure obtained or avoiding pain/suffering was considered to have utilitarianism ethical framework coded as 1. On the other hand, the responses that focused mainly on the right/wrong of these actions based on the ability to comply with certain moral rules or duties, were considered as deontological ethics and were coded as 2. Lastly, responses that focused on the right or wrong of these actions based on the virtues or vices of the person were considered to be virtue ethics and were coded as 3.

Figure 4. 1: Ethical Background

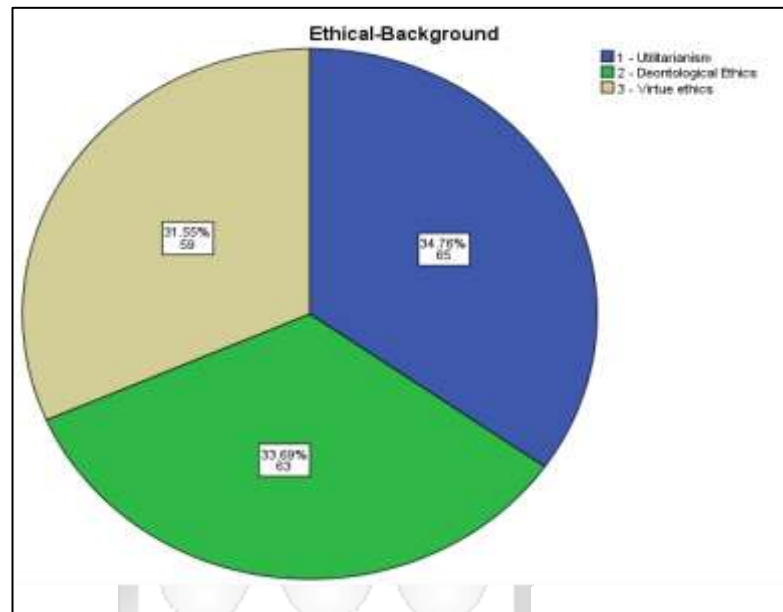


Figure 4.1 indicates that 34.76% of the respondents tended to have a utilitarianism ethical background, while 33.65% of the respondents tended to have a deontological ethics while 31.55% had Virtue Ethics background.

4.4.3 Safaricom's Customer Terms and Obligations

The questions asked to determine Safaricom's Ethical role included whether the respondent trusted that Safaricom was able to return money sent to the wrong number. The response was either yes, coded as 1 or no, coded as 0. The respondent is then required to explain the reason for the response. The magnitude of the reason is coded from 0 for a flimsy reason, 1 for a good reason and 2 for an outstanding reason. The respondents were also asked what they would do if an unintended recipient failed to return their money. Respondents who said that they would contact Safaricom to get the way forward, would be coded as 1 while responses that do not mention Safaricom were coded as 0. The ultimate Safaricom ethical policy was determined by the total of these scores to indicate the magnitude with which respondents believed Safaricom had solutions to help them deal with sending money to wrong persons erroneously. The higher the value the higher is Safaricom's Ethical policy.

Table 4. 3: Frequency Table on Safaricom Ethical Policy

		Statistics		
		Do you trust that Safaricom is able to return Money sent to the wrong recipient?	Please give your reason for your answer above	What would you do if an unintended recipient failed to return your M-Pesa funds?
N	Valid	187	187	187
	Missing	0	0	0
Mean		.90	1.28	.28
Mode		1	1	0
Std. Deviation		.303	.664	.452

When the respondents were asked whether they trusted Safaricom to return money sent to the wrong recipient, most of the respondents agreed as they said yes with a mode of 1. Figure 4.2 provides that 89.84% of the respondents responded in the affirmative.

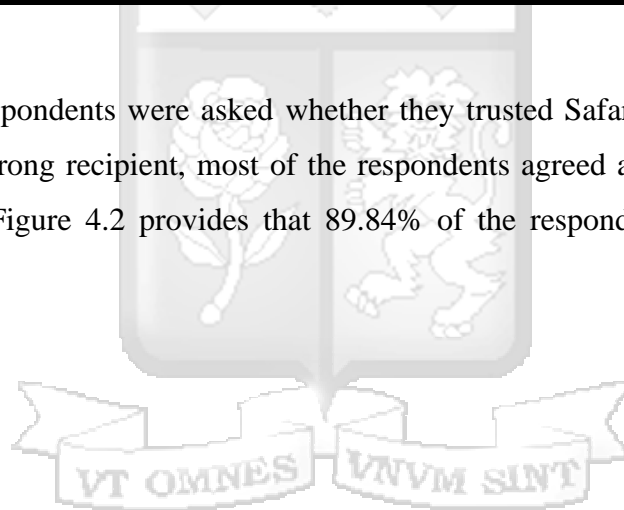
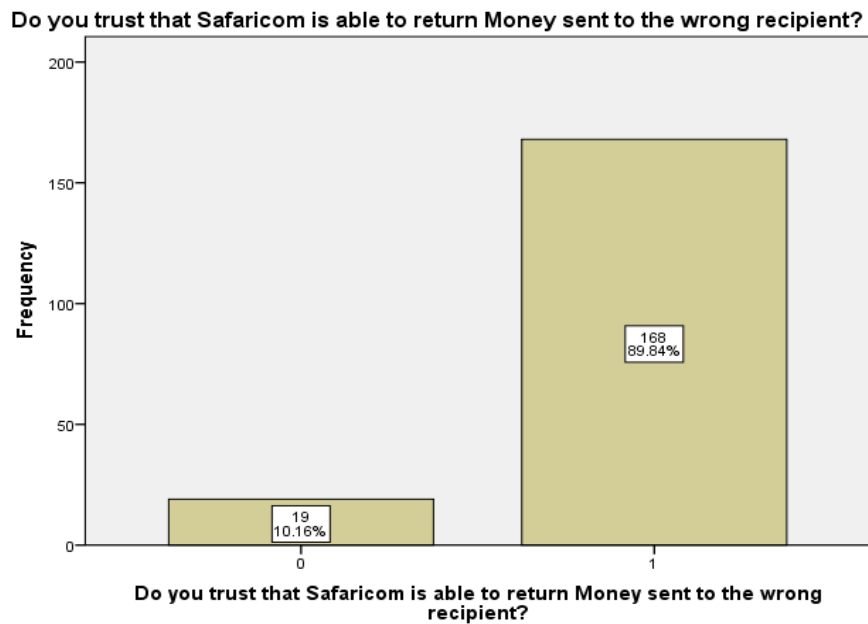


Figure 4.2; Safaricom's Ethical Policy Graph



4.4.4 Applicable Ethical System

The applicable ethical system was determined by the study through a number of questions in the questionnaire. The first question was whether most Kenyans were likely to return money received in error, which was either responded to as Yes (1) or no (0). The reason for the answer was also awarded 0 for a flimsy reason, 1 for a good reason and 2 for an impeccable reason as far as ethics is concerned. The respondents were also asked whether they understood what Ethics or morality represented. Respondents who said they understood what it represented were assigned a value of 1 while those who said no were assigned 0. The explanation was also awarded a score of either 0, 1 or 2 for an impeccable explanation that relates to ethical consideration. The total for these responses were accumulated to obtain the effective ethical system for each respondent.

Table 4. 4: Frequency Table

Are most Kenyans likely to return money received in error

	Frequency	Percent	Valid Percent	Cumulative Percent
0	116	62.0	62.0	62.0
Valid 1	71	38.0	38.0	100.0
Total	187	100.0	100.0	

Respondents were asked whether most Kenyans were likely to return money received in error. 62% of the respondents said that most Kenyans were not likely to return money while only 38% agreed that Kenyans could return money received in error. This indicates the perceived overall ethical system in Kenya. 75.4% of the respondents agreed that ethics/morality influenced M-Pesa reversals in 2019 while the rest 24.6% disagreed.

4.5 Correlation Analysis

Correlation analysis is a statistical method that examines the connection between two or more variables. This involves measuring how strongly two variables are linked or associated with each other. It helps to identify and measure the degree of the relationship between variables, whether they are positively correlated (meaning they tend to increase or decrease together), negatively correlated (meaning they tend to move in opposite directions), or uncorrelated (meaning there is no relationship between them). Spearman's correlation was employed in this study since it is suitable for ordinal variables. It is important to note that correlation does not always imply causation, and therefore a high correlation between variables does not necessarily mean that one variable causes the other.

Table 4. 5: Correlation Table

Correlations

		Reversal Success	Ethical-Background	Safaricom-Ethical-Policy	Ethical-System
Spearman's rho	Reversal Success	1.000			
	Ethical-Background	-.160*	1.000		
	Safaricom-Ethical-Policy	-.014	.037	1.000	
	Ethical-System	.679**	-.085	.103	1.000
N		187	187	187	187

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The study is more concerned on how the ethical system, or the ethics of mobile money reversal would be related with successful reversal of transactions erroneously made. The ethical background ranges from utilitarianism ethics coded as 1 to virtue ethics coded as 3 and believed to be highest form of ethics. The correlation of ethical background is -0.16 which still shows a significant correlation. This could be explained by the higher the respondent believed that people should have elevated level of ethics, the higher they would expect people to behave ethically and are likely to judge people more harshly for unethical behaviour. This explains why there is a negative correlation indicating that the higher the respondents believed people ought to be ethical, then the lesser the number of people who qualified and as such the lesser the people who could initiate successful reversal of money sent in error.

Safaricom’s Customer Terms on the other hand has a correlation against successful reversal to -0.014. This indicates that it is close to zero and it is not significant. Basically, the respondents do not find correlation between Safaricom’s Customer reversal terms with the successful reversal of money sent in error. This could be explained by the fact that despite the level of ethics for Safaricom’s processes, they have limited control of their customers who receive money sent in error, as they can only initiate reversals of transactions for the money that is still held in the M-Pesa wallets.

The ethical system on the other hand had a strong positive significant correlation with successful reversal at 0.679. This indicates that the stronger the ethical system in a country the more there are successful reversals of money sent in error.

1.6 Regression Analysis

The process of regression analysis involves studying the connection between a dependent variable and one or more independent variables through statistical analysis. The objective of this analysis is to determine the nature of the relationship between the dependent variable and independent variables and establish a mathematical equation that represents this relationship. For this study, the dependent variable under consideration is the successful reversal of erroneously sent money to the wrong account, while the independent variables include ethical background, Safaricom's Customer Terms, and the general ethical system. It is important to note that regression analysis is a potent statistical tool that can provide valuable insights, but it cannot establish causation between variables.

1.6.1 Regression Model Summary

Table 4. 6: Model Summary Table

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.684 ^a	.467	.458	.35809

a. Predictors: (Constant), Ethical-System, Ethical-Background, Safaricom-Ethical-Policy

The summary of the model reveals an R-squared value of 0.467, which measures how well the model can predict changes in the dependent variable. This value, also known as the coefficient of determination, indicates that the variables included in the study can explain 46.7% of the variations in successful reversal of money sent in error. To assess the significance of the relationship between ethics and successful reversal of money, an F-test statistic is performed, and the p-value is compared with the predetermined alpha value of 0.05.

Table 4. 7: ANOVA TABLE

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	20.577	3	6.859	53.489	.000 ^b
Residual	23.466	183	.128		
Total	44.043	186			

a. Dependent Variable: Reversal Success

b. Predictors: (Constant), Ethical-System, Ethical-Background, Safaricom-Ethical-Policy

The p-value as indicated by table 4.7 is less than 0.05 which indicates that the null hypothesis is rejected. The study therefore concludes that there is a statistically significant relationship between ethics and successful reversal of money that is sent in error.

1.6.2 Significance of Ethics in Mobile Money Reversal

Ethics in Mobile money reversal is determined by the independent variables namely, the ethical background that is either utilitarianism, deontological, or virtue ethics. The other variable is Safaricom’s Customer Terms and lastly the perceived ethical system that guides Safaricom’s processes.

Table 4. 8: Regression Co-efficient

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-.184	.111		-1.660	.099
1 Ethical-Background	-.058	.032	-.097	-1.794	.074
Safaricom-Customer Terms	-.036	.028	-.071	-1.295	.197
Ethical-System	.185	.015	.674	12.308	.000

a. Dependent Variable: Reversal Success

The regression co-efficient table 4.8 shows the co-efficient value for each independent variable. It helps to determine the effect, each of the independent variable has on the dependent variable. It shows that through the entire model, it has significant effect on the dependent variable, it is the only ethical system that individually has significant effect on successful reversal of money sent in error. This is because the p-value is less than 0.05 although the p-value for ethical-background is close at 0.074, it still falls in the rejection region. Both ethical background and Safaricom's Customer Terms have negative co-efficient indicating that they result in decreased tendency to have successful reversal of money that is sent in error. The study, therefore, concludes that the ethical system contributes positively and significantly to the successful reversal of M-Pesa mobile money that is sent in error.

However, even though the ethical background, is an important factor in determining successful reversal of money sent in error, the high expectations from highly ethical individuals have little room to tolerate unethical behaviour and therefore a negative effect on findings on successful reversal of money sent in error.

Safaricom processes on the other hand have insignificant effect on successful reversal of money. This could be attributed to the fact that despite the high Safaricom's Ethical standing, the company may not do much as they lack the investigative capacity required in most of these transactions around reversal of mobile money sent. It becomes difficult for the company to determine whether the sender truly sent the money in error, without consent from the receiver of the money. When there are disputes between both sides, the company may not be able to intervene and therefore they have limited capacity in solving these issues surrounding reversal of money.

The Ethical system prevailing in the country is however a powerful factor, which would highly guarantee reversal of money sent in error. A highly ethical system would mean that individuals who receive money sent in error, would not want to use the money for their selfish gains. They would therefore ensure that the money gets back to the sender and would therefore allow the completion of the reversal. However, fraudsters sometimes take advantage of such high-ethical systems and people become unwilling to co-operate with the sender unless the company (Safaricom) intervenes to ensure successful reversal of the money sent in error.

1.7 Summary and Interpretation of Findings

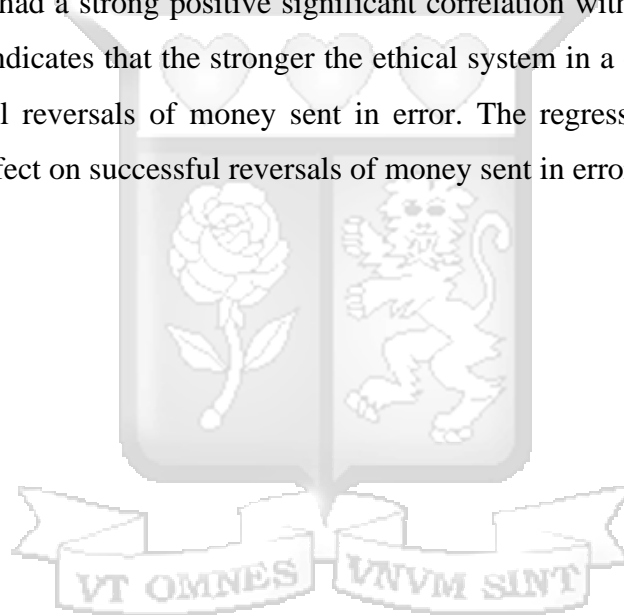
The study undertook a case study of Safaricom M-Pesa Customer to customer reversals in establishing the impact of ethics in reversal of mobile money and which ethical background had a greater impact on the success of reversals. The objectives of the study were to determine the prevalent ethical background of either utilitarianism, deontological or virtue ethics in these reversal transactions. The other objective was to evaluate Safaricom's customer terms on customer-to-customer transactions in 2019 and the third objective was to understand the ethical background for Safaricom processes in customer-to-customer transactions.

In the first objective the study found that 34.76% of the respondents tended to have a utilitarianism ethical background, while 33.65% of the respondents tended to have a deontological ethics while 31.55% had Virtue Ethics background. This indicated that the distribution of the ethical backgrounds was almost distributed equally among the three ethical backgrounds. The ethical background had a negative significant correlation with successful reversal of money. The correlation of ethical background was -0.16 which is close to zero that shows there is no correlation with successful money reversal, but the correlation is significant. This would be explained that the higher the respondent believed that people should have high level of ethics they judged people more harshly for unethical behaviour. The co-efficient was also negative and insignificant in the regression model in that as an individual factor it had insignificant effect on successful reversal of mobile money.

The second objective was to evaluate Safaricom's customer Terms on customer-to-customer transactions. 89.84% of the respondents agreed that Safaricom was able and in position to reverse customer's money that was sent in error. Most of the respondent said that they had first-hand experience in getting the money they had sent or received in error being reversed by the company. However, despite the high company's ethical standing, the correlation with reversal of mobile money was insignificant and close to zero. Basically, the respondents do not find correlation between Safaricom's reversal policy with the successful reversal of money sent in error. This could be explained by the fact that despite the high level of ethics standing for Safaricom's processes, they have limited control of their customers who receive money sent in error, as they can only initiate reversals of transactions for the money that is still held in the M-Pesa

wallets. The company has no solution for unscrupulous customers who withdraw such money sent in error. The regression co-efficient is also insignificant therefore suggesting that as an individual variable, Safaricom's terms have limited effect on successful reversal of money sent in error.

The third objective was to understand the ethical background for Safaricom processes in customer-to-customer transactions. The establishment of an ethical system was dependent on whether in general there existed a high ethical value among the citizens. Respondents were asked whether Kenyans were likely to return money sent in error, out of which 62% of the respondents said that most Kenyans were not likely to return money, while only 38% agreed that Kenyans could return money received in error. The variable had a strong positive significant correlation with successful reversal at 0.679. This indicates that the stronger the ethical system in a country the more there are successful reversals of money sent in error. The regression co-efficient had a significant effect on successful reversals of money sent in error.



Chapter Five: Summary, Conclusion and Recommendations

5.1 Introduction

This section provides an overview of the study's findings, conclusions, and recommendations, as well as a discussion of its limitations and suggestions for future research.

5.2 Summary

The study aimed to investigate the impact of three ethical backgrounds in Safaricom customer-to-customer reversal transactions, as well as Safaricom's ethical base on customer-to-customer reversals processes. Primary data was collected from 187 respondents and found that the prevalent ethical background was almost equally distributed among utilitarianism, deontological ethics, and virtue ethics, with utilitarianism having the highest percentage of respondents. The ethical background had a negative significant correlation with successful reversal of money.

Regarding Safaricom's customer terms on customer-to-customer transactions, the study found that 89.84% of the respondents agreed that Safaricom was able and in a position to reverse customer's money that was sent in error. However, the correlation with reversal of mobile money was insignificant, which suggests that respondents did not find correlation between Safaricom's reversal policy with the successful reversal of money sent in error.

As to understanding the ethical base for Safaricom reversals processes in customer-to-customer transactions, the study found that 62% of the respondents believed that Kenyans were not likely to return money sent in error, while only 38% agreed that Kenyans could return money received in error. The variable had a strong positive significant correlation with successful reversal, indicating that the stronger the ethical system in a country, the more successful are the reversals of money sent in error.

5.3 Conclusion

The study makes conclusions on each of the objective of the study. It found that the distribution of ethical backgrounds among the three ethical frameworks was almost equally distributed, with utilitarianism being the most prevalent. In Total 75.4% of the respondents agreed that ethics/morality influenced M-Pesa reversals in 2019.

The study also found that Safaricom had a high ethical standing on customer-to-customer transactions, with most of the respondents agreeing that the company did what was required to reverse customer's money sent in error.

Lastly, the study found that the ethical background for M-Pesa processes in customer-to-customer reversals was dependent on the existence of high ethical values among citizens. Respondents reported that most Kenyans were not likely to return money sent in error, indicating a weak ethical system. However, the variable had a strong positive significant correlation with successful reversal, suggesting that the stronger the ethical system in a country, the more successful the reversals of money sent in error.

5.4 Recommendations

Based on the findings of the study, the researcher would recommend that Safaricom continues upholding their duty in customer-to-customer reversal transactions to maintain the trust of their customers. This can be done through regular training of their staff on specific tasks to reversals and stakeholder engagements to customers on moral biases when money is received in error. The study also recommends that the company should consider developing a system to track and recover funds from unscrupulous customers who withdraw money sent in error.

Safaricom should encourage engagements with Legislative bodies on enforcing the existing acts as this would create an ethical system that discourages withdrawal of money sent in error out of a defined code of penalties. This can be done through partnering with other mobile money providers to create a bigger eco-system that spreads awareness and ensures culprits cannot hide in competing platforms.

The company should conduct regular research to understand the prevalent moral beliefs of their customers and how it affects their behaviour in customer-to-customer

transactions. This will enable them to design better processes that align with the values of their customers.

5.5 Limitations of the Study

Even though the researcher undertook meticulous analysis of the study, there are several limitations that should be considered when interpreting the findings. First, the study only focused on Safaricom M-Pesa customers and may not be generalizable to other mobile money platforms or industries. The results may only apply to similar contexts and may not be applicable to other industries or countries. The sample size of 187 respondents may not be representative of the entire population of Safaricom M-Pesa customers. This may have limited the statistical power of the study and reduced its ability to draw general conclusions.

The research used data provided by the participants themselves, which could have been influenced by social desirability bias. The respondents may have given answers that they believed were more socially acceptable or in line with their values, rather than reflecting their true behaviour. Furthermore, the study only examined one facet of mobile money transactions, specifically, the reversal of funds from customer to customer. It did not consider other variables that might impact ethical conduct, such as transactions between customers and businesses or security concerns.

The study focused on 2019, and since then, there may have been changes in Safaricom's policies or customer behaviour that may affect the generalizability of the findings. The study only explored the correlation between ethical backgrounds, ethical policies, and successful reversals of money sent in error. Other factors, such as the frequency of errors, may also influence the success rate of reversals.

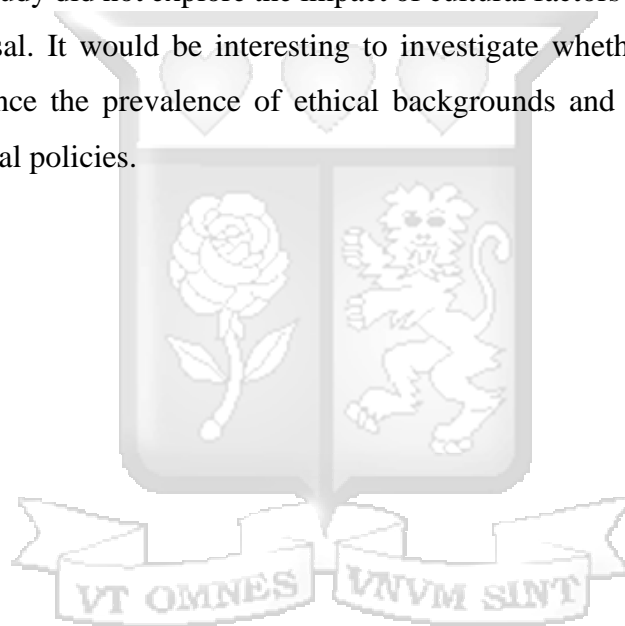
5.6 Areas for Further Research

Based on the findings and limitations of this study, there are several areas where further research can be conducted to expand our understanding of the ethics of mobile reversal. In the first instance, it would be beneficial to conduct a similar study across different mobile money platforms in the region to compare the prevalence of ethical backgrounds and the impact of ethical policies on successful reversals. This can help

to identify if the findings of this study are specific to Safaricom M-Pesa or if they are generalizable to other platforms.

Secondly, the study relied on self-reported data from respondents, which can be subject to biases and may not accurately reflect their actual behaviour. Future research could employ more objective measures, such as transaction data, to validate the findings of this study. The study did not further explore the role of education and awareness in promoting ethical behaviour in mobile money transactions. Further research could investigate the impact of interventions aimed at improving ethical awareness and behaviour among mobile money users.

Finally, the study did not explore the impact of cultural factors on the ethics of mobile money reversal. It would be interesting to investigate whether cultural values and norms influence the prevalence of ethical backgrounds and the success of mobile money reversal policies.



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Appendix A: Questionnaire

Dear Sir / Madam,

RE: Reasons for Accepting M-Pesa Reversals.

Thank you for accepting to take part in this survey. Your participation is needed for devising engagements that will encourage M-Pesa customers to accept reversals for money that was not intended for them. Those eligible to take part in the survey are MPESA customers who have had a reversal request in the year 2019.

There are 16 questions in total which could take about 15 minutes or less to complete. Answer only those applicable to your circumstance. You are assured that your responses will be securely stored, treated confidentially and solely used for the purposes of this study. You are free to opt out of this survey or change your mind at any time without any explanation. In case of any enquiries, kindly contact the undersigned. You can also contact my supervisor, Dr. John Branya by email at jbranya@strathmore.edu.

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Research Question	Survey Question
Opening questions; Structured questions	Question 1- 4
Research Question 1 What is the is more frequent ethical background in Safaricom customer-to-customer reversal transactions in 2019?	Questions5, 6, 7, 8 and 10
Research question 2: What were Safaricom’s Customer Terms in regard to customer-to-customer reversal transactions in 2019?	Questions 9,11,12,13 and 14.
Research question 3: To establish the applicable ethical system for Safaricom processes in customer-to-customer transactions	Question 14, 15 and 16

Questionnaire					
No					

Considerations in accepting / declining M-Pesa Reversals

CHECKS

Result codes	
1. Interview Completed	
2. Respondent refused to provide reasons	
3. No clear reasons given	
4. Respondent had no control	

Date of Interview	
Time of Interview	

Respondent Identification

Have you ever had a reversal request		
--------------------------------------	--	--

Location	Gender	Age

What language would you prefer to be interviewed in?

English		Kiswahili	
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1. How long have you used M-Pesa?

1-3 YEARS	3-9 YEARS	Over 10 years

2. How frequently do you transact on M-Pesa in a day?

1.Payment of Bills		
2.Purchase of goods		
3.Sending Money		
4.Depositing money		
5.Withdrawing money		
6.Airtime purchase		

3. What is the highest level of formal education achieved?

None	Lower Primary school	Completed Primary school	High School	Technical training	University

4. How many reversal requests have you placed or received in 2019?

	Less than 3	More than 5	Between 5- 10
Received			
Placed			

5. Were you able to get a reversal of your funds, or did you accept the requested reversal in 2019?

Yes

No

Kindly explain why you think it was successful/not successful.

--

6. Did you attempt to call the wrong recipient? What was their reaction?

Yes /No	
What was their reaction upon receiving the direct request?	

7. Have you approved or declined a reversal Request in 2019?

A. Yes	What reasons led you to approve the request?
B. No	What reasons led you to decline the request?

8. Did the Sender try to contact you personally to request for their money in 2019? What was your reaction?

Yes	
What was your reaction upon receiving the direct request?	

9. Do you trust that Safaricom is able to return Money sent to the wrong recipient?

Yes No

Kindly give your reasons

10. What would you do if an unintended recipient failed to return your M-Pesa funds ?

11. Are you aware of the current legislation in place for Reversals?

Yes No

12. Are most Kenyans likely to return money received in error or use it. What guides your thoughts?

Return Use

Give Reasons

13. Do you understand what Ethics or Morality represents? (Do not prompt)

Yes No

Give brief words on your understanding

14. If answered Yes, in question 13. Do you think Ethics/Morality influenced M-Pesa reversals in 2019?

Yes		Give a reason
No		Give a reason

15. Do you have any suggestions that could aid in improving the success rate of M-Pesa reversals?

16. Do you think the current laws were enough to improve the success rate of reversal requests in 2019?

No		Give a reason

Storage of information on the completed questionnaire

I AGREE to have my completed questionnaire stored for future data analysis.

I DO NOT AGREE to have my completed questionnaire stored for future data analysis.

Participant's Signature: _____

Date: ____/____/____

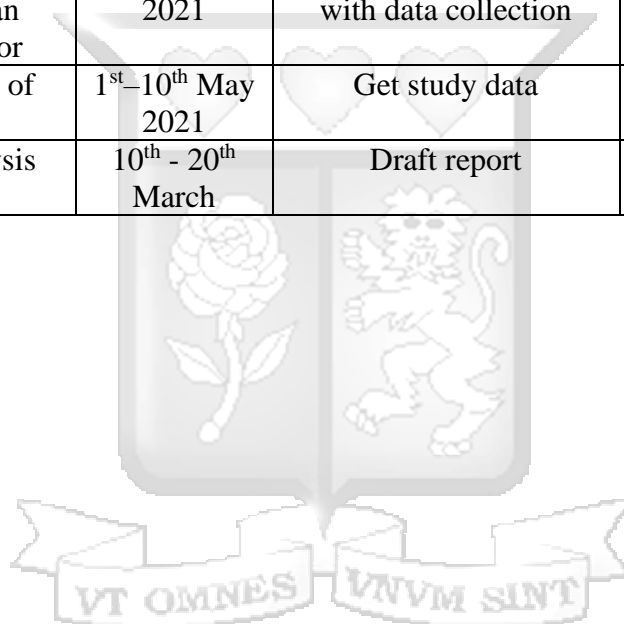
Thank the Respondent.

Interview end time				
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Appendix B The proposed workplan

ACTION	TIME	Expected Outcome	Comment	
Formulation of draft questionnaire	15 th January 2021	Address research Questions		
Review of draft questionnaire	24 th January 2021	Clarify/reword questionnaire		
Identification of subjects of the study	30 th January 2021	Get a good representative sample		
Pretesting the Questionnaire	27 th April 2021			
Enlisting and training an enumerator	20 th April, 2021	Get an assistant to assist with data collection		
Collection of data	1 st –10 th May 2021	Get study data		
Data analysis	10 th - 20 th March	Draft report		



Appendix C Raw Data

Serial No.	What is your gender?	Select an age group that applies to you	How long have you used MPESA?	What is your level of Education?	Are most Kenyans likely to return money received in error?	Ethical-Background	Safaricom-Ethical-Policy	Ethical-System
1	0	1	2	4	0	2	4	4
2	0	2	3	4	1	2	4	6
3	1	1	3	4	1	1	2	7
4	0	1	3	4	1	3	3	2
5	0	2	3	4	0	3	4	4
6	0	1	3	4	0	3	3	5
7	0	1	3	4	1	3	3	7
8	0	3	3	4	0	3	1	4
9	1	1	3	4	0	3	2	3
10	0	2	3	4	0	1	3	5
11	1	2	3	4	0	1	3	3
12	0	1	2	4	0	2	4	3
13	0	1	2	4	0	2	3	4
14	0	5	3	3	0	1	2	3
15	0	5	3	4	0	3	2	4
16	1	1	3	1	1	2	1	4
17	0	3	3	3	0	1	3	3
18	0	4	3	3	0	3	3	3
19	1	2	3	4	0	3	4	4
20	1	3	2	4	0	2	3	5
21	0	2	3	4	0	1	1	4
22	0	3	3	3	1	3	2	7
23	1	3	3	4	1	1	2	7
24	1	2	3	4	0	1	2	5
25	1	2	3	4	1	3	3	7
26	1	1	3	4	0	2	1	1
27	0	1	2	3	0	2	3	4
28	0	1	2	3	0	1	3	4
29	0	2	2	4	0	1	1	3
30	0	1	1	4	0	2	3	2
31	0	2	3	4	0	3	2	4
32	0	2	2	4	0	3	2	2
33	0	4	3	4	1	1	2	5
34	0	3	3	4	1	1	3	6
35	0	1	2	4	0	2	4	4

36	0	4	3	4	1	2	2	6
37	0	5	3	4	1	2	2	6
38	1	1	3	4	0	1	2	5
39	1	1	2	3	0	1	0	2
40	0	4	3	4	0	3	3	4
41	0	4	2	4	0	2	3	4
42	0	4	3	3	0	2	2	4
43	0	3	3	2	0	3	3	3
44	0	3	2	4	1	1	3	5
45	0	1	2	4	1	3	4	5
46	0	4	3	4	0	2	3	4
47	1	2	3	4	1	1	3	7
48	1	1	3	4	1	2	2	6
49	0	2	3	4	0	1	3	1
50	0	2	3	4	0	2	4	4
51	0	2	3	4	0	2	2	4
52	1	4	2	4	0	1	4	5
53	1	1	3	4	0	1	3	2
54	0	2	3	4	0	3	2	3
55	1	2	3	1	0	3	2	1
56	0	3	3	4	0	2	2	4
57	0	4	3	4	0	3	3	4
58	1	3	3	4	1	1	2	6
59	1	2	3	4	0	3	3	3
60	1	2	3	4	0	3	4	4
61	1	3	3	4	0	3	3	3
62	1	2	3	4	0	1	1	2
63	1	2	3	4	0	2	2	4
64	1	2	3	4	0	3	2	2
65	1	1	3	4	0	2	0	4
66	1	2	3	4	0	3	3	3
67	1	1	2	3	1	3	3	4
68	1	1	2	2	1	1	2	2
69	0	2	2	2	1	2	2	7
70	1	2	2	3	0	1	3	3
71	1	2	2	3	0	1	1	3
72	0	2	2	1	1	1	2	1
73	1	2	2	3	0	2	1	4
74	1	1	2	2	1	1	2	6
75	1	3	3	2	1	3	2	7
76	1	2	2	3	0	3	2	3
77	0	3	2	1	0	2	2	3
78	0	4	3	4	1	2	3	6

79	1	2	2	3	1	2	2	6
80	0	1	2	2	0	3	2	4
81	1	2	2	3	0	2	3	3
82	1	1	1	2	0	3	0	0
83	0	1	1	1	0	2	2	3
84	1	2	2	2	0	2	2	3
85	1	1	2	3	0	1	3	3
86	0	1	2	3	1	1	3	6
87	1	1	2	3	1	1	3	6
88	0	2	2	1	1	1	3	7
89	1	1	2	3	0	3	2	3
90	1	2	2	3	1	1	3	5
91	0	3	3	4	1	1	2	6
92	0	2	3	4	0	2	3	4
93	0	3	3	4	1	1	3	6
94	0	3	3	4	1	2	3	7
95	0	3	3	4	0	2	2	2
96	0	3	3	4	0	3	2	4
97	0	2	2	3	0	3	3	4
98	0	2	3	3	0	1	3	4
99	1	2	3	4	1	3	2	7
100	0	2	3	4	0	3	3	4
101	0	1	3	4	1	2	2	7
102	1	2	3	4	0	2	3	4
103	1	3	3	4	1	1	3	6
104	0	3	3	4	1	2	3	7
105	1	3	3	4	0	3	3	2
106	0	2	3	4	0	2	2	3
107	1	3	3	4	1	1	3	7
108	1	1	3	4	0	1	3	4
109	1	3	3	4	1	1	3	7
110	1	2	3	4	0	3	3	4
111	0	3	3	4	0	1	3	4
112	1	3	3	4	1	2	2	6
113	0	2	3	4	1	1	2	7
114	0	2	3	4	0	3	4	4
115	1	2	3	4	1	3	1	6
116	0	2	3	4	0	1	3	2
117	1	2	3	4	0	3	1	4
118	1	2	3	4	0	2	3	4
119	0	3	3	4	1	3	3	7
120	1	2	3	4	1	3	3	7
121	1	2	2	4	0	2	4	2

122	1	1	3	4	1	1	2	4
123	0	2	3	3	0	1	3	1
124	0	2	2	4	0	3	2	4
125	1	2	3	4	0	2	3	4
126	1	1	2	1	1	1	3	5
127	0	1	1	4	1	1	3	6
128	1	3	3	2	0	3	2	0
129	1	2	3	3	0	2	4	4
130	1	1	1	2	0	3	4	3
131	0	2	3	4	0	2	3	4
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136	1	2	2	3	0	2	0	3
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138	1	2	2	3	0	1	2	4
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155	0	1	2	2	1	2	3	2
156	0	3	3	4	1	1	3	5
157	1	2	3	3	0	1	3	0
158	1	1	2	2	1	3	3	1
159	1	2	2	2	0	1	2	4
160	0	2	3	4	1	2	3	7
161	1	2	3	4	1	3	3	7
162	0	1	1	2	0	3	3	4
163	0	2	3	3	0	1	2	3
164	1	2	3	4	0	1	3	2

165	0	2	3	3	0	3	3	1
166	0	3	3	4	0	2	3	3
167	0	2	2	4	1	1	3	6
168	0	1	2	4	1	1	3	3
169	0	2	3	4	0	2	3	3
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172	0	2	3	4	0	2	4	2
173	0	3	3	3	1	3	4	7
174	0	3	3	3	1	3	3	7
175	0	1	2	4	0	1	0	3
176	0	2	3	4	0	3	2	4
177	0	1	3	4	1	2	0	6
178	1	2	3	4	0	2	2	4
179	0	1	3	4	1	3	2	7
180	0	1	2	4	0	3	1	1
181	0	2	3	4	0	3	3	0
182	0	4	3	3	1	2	3	5
183	0	1	3	4	0	2	2	2
184	1	3	3	4	0	3	3	4
185	0	3	3	4	1	3	2	6
186	0	1	3	4	0	2	1	3
187	1	3	3	4	0	2	3	4
TOTAL	187	187	187	187	187	187	187	187

Serial No.	What is your gender?	Select an age group that applies to you	How long have you used MPESA?	What is your level of Education?	Are most Kenyans likely to return money received in error?	Ethical-Background	Safaricom-Ethical-Policy	Ethical-System
0	104				116		9	4
1	83	52	6	7	71	65	15	9
2		86	59	21		63	61	18
3		35	122	35		59	84	34
4		11	0	124			18	55
5		3						19
6								23
7								25
TOTAL		187	187	187	187	187	187	187

Serial No.	What is your gender?	Select an age group that applies to you	How long have you used MPESA?	What is your level of Education?	Are most Kenyans likely to return money received in error?	Ethical-Background	Safaricom-Ethical-Policy	Ethical-System
0	56%				62%		5%	2%
1	44%	28%	3%	4%	38%	35%	8%	5%
2		46%	32%	11%		34%	33%	10%
3		19%	65%	19%		32%	45%	18%
4		6%	0%	66%			10%	29%
5		2%						10%
6								12%
7								13%
TOTAL		100%	100%	100%	100%	100%	100%	100%

Sex	%	Age	%	MPESA	%	Education	
0 Female	56%	1 18-30	28%	1 1-3 years	3%	1 primary	4%
1 Male	44%	2 31-40	46%	2 3-9 years	32%	2 secondary	11%
		3 41-50	19%	3 > 10 years	65%	3 technical	19%
		4 51-60	6%			4 university	66%
		5 > 61	2%				

Return	%	Ethical-System	%	Ethical-Background	%	Ethical-Policy	%
0 No return	62%	35%	35%	0 = Poor	5%	0 = Poor	2%
1 Yes	38%	34%	34%	1 = Poor	8%	1 = Poor	5%
		32%	32%	2 = Poor	33%	2 = Poor	10%
				3 = Moderate	45%	3 = Moderate	18%
				4 = Moderate	10%	4 = Moderate	29%
						5 = Good	10%
						6 = Good	12%
						7 = Excellent	13%

Appendix D Ethical Approvals



Strathmore university

Mrs. Wamwenje, Adeline
adeline.mwenje@gmail.com

4th June 2020

Dear Mrs. Wamwenje,

RE: Ethics of Mobile Money Reversal

This is to inform you that SU-IERC has reviewed and approved your above research proposal. Your application approval number is SU-IERC0810/20. The approval period is 4th June 2020 to 3rd June 2021.

This approval is subject to compliance with the following requirements:

- i. Only approved documents including (informed consents, study instruments, MTA) will be used
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-IERC.
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-IERC within 72 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-IERC within 72 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days upon completion of the study to SU-IERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://oris.nacosti.go.ke> and also obtain other clearances needed.

Your sincerely,
Dr Virginia Gichuru,
Secretary; SU-IERC
Cc: Prof Fred Were,
Chairperson; SU-IERC





REPUBLIC OF KENYA



NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION

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