

The Role of Peer to Peer Communication in The Adoption of Community Currencies in  
Kenya a Case of Gatina Pesa In Gatina Village Kawangware

by

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APPROVAL

THE ROLE OF PEER-TO-PEER COMMUNICATION IN THE ADOPTION OF  
COMMUNITY CURRENCIES IN KENYA: A CASE OF GATINA PESA IN GATINA  
VILLAGE, KAWANGWARE

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In accordance with Daystar University policies, this thesis is accepted in partial fulfillment of the requirements for the Master of Arts degree.

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## DECLARATION

THE ROLE OF PEER-TO-PEER COMMUNICATION IN THE ADOPTION OF  
COMMUNITY CURRENCIES IN KENYA: A CASE OF GATINA PESA IN GATINA  
VILLAGE, KAWANGWARE

I declare that this thesis is my original work and has not been submitted to any other college or university for academic credit.

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## LIST OF ABBREVIATIONS AND ACRONYMS

BP	Bangla Pesa
DOI	Diffusion of Innovation
GE	Grassroots Economics
GP	Gatina Pesa
KNBS	Kenya National Bureau of statistics Housing Survey
LETS	Local Exchange Trading System
NGO's	Non-Governmental Organizations
UN	United Nations
USSD	Unstructured Supplementary Service Data

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## ABSTRACT

The purpose of this study was to evaluate the role of peer-to-peer communication in the adoption of community currencies in Kenya, with a special focus on Gatina Pesa (GP) in Gatina village, Kawangware. The study objectives were to find out the role of peer communication in the adoption of community currencies, investigate the factors that influence the adoption of community currencies, and to evaluate the challenges of peer communication in the adoption of community currencies in Gatina village Kawangware in Nairobi County. The research was guided by the Diffusion of Innovation Theory (DOI). The study used descriptive research design with a sample size of 50 respondents who have adopted the use of GP in their businesses. Data was collected through questionnaires and a key informant interview. The data collected from the questionnaires were analyzed using the Statistical Package for Social Sciences (SPSS) software for analysis. For the interview, it was recorded, and the data transcribed and was then analyzed thematically and presented in narration form. The study established that peer communication as indicated by 68% of the respondents, played a role in the uptake of Gatina Pesa. The in-depth interview with the senior manager established that peer communication was applied in creating awareness about Gatina Pesa through rewarding referees and rewarding users with weekly bonuses. The study recommends that innovators should consider the use of peer-to-peer communication to ease adoption of new technologies. Future studies could be done on how financial literacy levels affect uptake of community currencies.

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## DEDICATION

I dedicate this work to my parents, the late Harun Rashid Ruvaga and Maria Martha Bamanya Mulo whose unconditional love has constantly inspired me to excellence.

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## CHAPTER ONE

### INTRODUCTION AND BACKGROUND TO THE STUDY

#### Introduction

Community currencies encompass a broad range monetary currency which are confined to a specific community for the purpose of facilitating trade in goods and services for sustainable development (Lietaer, 2001). As argued by Sahakian (2013), community currencies are not in essence meant to replace the respective national currencies. She adds that the community currencies enable societies that adopt them to be directly involved in distribution of goods and services including financial credit.

Williams, Aldridge, Lee, Leyshon, and Tooke (2011) observed that the use of community currencies aims to attain sustainable development. According to Ruddick, Richards and Bendell (2015) those who took up the Gatina Pesa (GP) were looking to access a level of financial credit which was not readily available to them without stringent financial measures and background checks including security.

This chapter begins with the introduction to the study. It further gives the historical background of the adoption of GP currency in Gatina Village, the problem of the study, purpose of the study and provides a justification and the significance for the study. The chapter has discussed the scope of the study, limitations and assumptions of the study as well as present the definitions of key terms that were used in the document.

#### Background to the Study

Seyfang and Longhurst (2013) defined community currencies as an auxiliary monetary system that may hinge its foundation on aspects of barter trade or a reward

scheme system. The scholars identified the four main types of community currencies namely local currencies, barter markets, mutual exchange, and service credits.

The first category of local currencies are paper-based currencies which are convertible to the national currencies. The local currencies compliment the national currencies within a confined geographical area and are used to trade in goods and services usually pegged on an amount relative to the national currencies (Seyfang & Longhurst, 2013). In the case of GP, the community currency is confined to Gatina village, in Kawangware and is meant to compliment the national currency (Ruddick et al., 2015).

Seyfang and Longhurst (2013) observed that barter markets are the second category of community currencies. This category utilizes both mutual exchange and local currency. It is a combination of both systems where the monetary value of the specific currency is used for the exchange of goods and services. Hirota (2011) noted that community currencies have also been termed as Local Exchange Trading Systems (LETS) or Systèmes d'échanges locaux (SEL). Created in 1983 by Michael Linton, transactions were centralized through the internet and the telephone. Users would have debit and credit limits to enable them trade. Cohen-Mitchell (2000) points out that in the 2000 there were around 2000 communities registered as users of LETS in Africa, Asia, Canada, Europe, and New Zealand. However, Sefyang (2002) noted that a substantial number of LETS are no longer operating because of low trading volumes. In addition to this most countries taxed the LETS making it quite unattractive to most would-be users.

Service credits are the last category, which is principally based on the notion that each and every person's time has the same value as that of a time-based currency.

According to Cahn (2000), the time bank was formed as a way of formalizing the aspect of volunteerism among those marginalized groups in society that includes aged, disabled, poor, and young. Time banks are based on time which is then pegged as a unit of local currency. When they participate, they are awarded time credits which are then pegged on the unit local currencies.

The scholar adds that the time dollar network, the first form of time bank, created in 1983 was meant to ensure that people contributed to social welfare initiatives and were not merely 'consumers' but 'co-producers' as well. Each hour worked earns the same credit irrespective of profession or service rendered by participants. This egalitarian nature of the time bank is then stored in a computerized system of debits and credits.

The Ithaca Hour according to Hoffman (2010), was quite distinct from the three earlier categories of community currencies. The Ithaca Hour used specially printed paper which was used to conduct trade between participant members in communities. The Ithaca hour utilized services of all cadres of laborer's both skilled and non-skilled workers. Each hour worked would translate into an Ithaca hour which would then be equated to an amount in terms of currency. For instance, one hour could be equated to five Ithacas. The primary focus on trade in goods and services was what set it apart from the time bank and LETS. To the best knowledge of the researcher, few if not rare studies have been conducted on the role of peer communication in the uptake of community currencies.

Seyfang and Longhurst (2013) argued that the ability to promote trade and have a common locale are the main features of a community currency. The initiative was started by Grassroots Economics (GE) who began a pilot study in 2010 to find ways of uplifting

members of communities in informal settlement from poverty. The scholars note that uplifting by the use of community currencies is integral in communication for development since it shows the link between the use of the community currency and bringing about sustainable development within a given social system. The scholars add that, empowering locals using community currencies to spur growth is the main reason why community currencies have been fronted as an innovative economic practice.

According to Blanc and Fare (2013), the nature of community currency is that it becomes a mutual credit scheme for participants. GE mutual scheme included the use of community currencies which would offer users access to financial credit and thus financial freedom (Ruddick et al., 2015). The author indicates that GP was introduced in Kawangware in 2013 and has so far been adopted by 250 businesses. The Kenya Population and Housing Census (2019) reports a 155,089 population in Dagoretti North and South constituencies which in total have ten wards. The project in Kawangware was begun to enable the community to access financial credit through boosting their local economy via the community currency (Ruddick et al., 2015). So far, this has been the most successful community currency, though little has been written on its process of adoption into the community.

Sahakian (2013) stated that community currencies enable societies that adopt them to be directly involved in distribution of goods and services including financial credit. The Gatina Pesa (GP) project in Kawangware was begun to enable the community to access financial credit through boosting their local economy via the community currency (Ruddick et al., 2015). According to Blanc and Fare (2013), Community currencies by design become mutual credit schemes for participants.

There are other community currencies that have been introduced in Kenya. The earliest of this is Eco-Pesa which was implemented in 2010 by a not-for-profit organization known as Koru Kenya. It had 75 registered businesses but had to fold after a year in circulation because of bad administration and lack of transparency in managing finances (Ruddick & Mariani, 2013). In 2013, Bangla Pesa was introduced in Mombasa's Bangladesh slum. Around 109 businesses registered and begun using it on its launch. It was however stopped by the government and later re-introduced to the community through linear communication by the authorities. It has struggled to pick up. According to Ruddick et al. (2015), Bangla Pesa was stopped by the government since there was lack of adequate information on the roll out and consent by overseeing agencies such as the Ministry of Finance through the Central Bank.

In 2015, Lindi Pesa was introduced in Kibera, one of the largest slums in Kenya. The innovation was diffused to the community through a linear communication approach by use of community meetings and peer learning. In the same year, the Kangemi Pesa was launched in Kangemi, an informal settlement in Nairobi (Ruddick et al., 2015).

Bangla Pesa was fraught with controversy as it was declared illegal by the government of Kenya. Ruddick (2013) noted that the case was later withdrawn with recommendations that the Central Bank of Kenya Act make relevant policy to govern community currencies. The same year, the government retracted, and the community currency was re-introduced this time with support from the government.

According to various studies on community currencies in other parts of the world, a participatory communication approach has been credited to their success. For instance, Mora (2006) observed that the Curtiba, a complimentary currency was introduced in

Brazil in 1991 in the state of Parana. The success of the currency was as a result of peer-to-peer communication and was participatory. Newman (2010) argued that the peer-to-peer interaction in a given system over a period of time can be referred to as a network. The nodes are the individual parts of the system while the edges represent the interactions. Wasserman and Faust (1994) added to this by saying that social networks arise as a result of these nodes representing individual or coactive social interactions.

### Statement of the Problem

Studies have shown that community currencies have been adopted in several communities across the globe (Ruddick et al., 2015). They are preferred because of their various benefits which include ensuring development of the local community and encouraging enterprise.

Collom (2005) observed that community currencies thrive in social systems where a vast majority of members are economically marginalized. Seyfang and Longhurst (2013) noted that Community currencies are an auxiliary monetary system that are based on aspects of barter trade or a reward scheme system. Empowering locals using community currencies to spur growth is the main reason as to why community currencies have been fronted as an innovative economic practice.

Despite the above benefits, community currencies are rarely recognized or regulated by the government hence communities are limited in terms of the channels they use to create awareness about their currency. For instance, The Bangla Pesa in Kenya faced challenges in its introduction to communities in Mombasa before the Central Bank of Kenya finally recognized the legality of the community currency (Ruddick et al., 2015).

While studies have shown that peer to peer communication is useful in accelerating the rate of adoption of innovations according to (Pratiwi & Suzuki, 2017), little has been done to study the use of peer communication and its effect on the adoption of community currencies. Therefore, this study sought to investigate the use of peer communication in the adoption of Gatina Pesa in Kawangware area of Nairobi County which was aimed at bringing about financial inclusion and ultimately sustainable development for those participating.

#### Purpose of the Study

The purpose of this study was to evaluate how peer communication affects the adoption of community currencies with specific focus on GP.

#### Objectives of the Study

1. To highlight the role of peer communication in the adoption of community currencies in Gatina village Kawangware in Nairobi County.
2. To investigate the factors that influence the adoption of community currencies in Gatina village Kawangware in Nairobi County.
3. To evaluate the challenges of peer communication in the adoption of community currencies in Gatina village Kawangware in Nairobi County.

#### Research Questions

1. How was peer communication used in the adoption and maintenance of GP in Gatina village Kawangware in Nairobi County?
2. What factors influenced the adoption of community currencies in Gatina village Kawangware in Nairobi County

3. What peer communication challenges influenced the uptake of GP in Gatina village Kawangware in Nairobi County?

#### Justification for the Study

The study aimed to fill in the research gap on the role communication plays in the uptake of community currencies. So far studies have focused on community currencies in general but none on the communication factors that lead to the adoption of community currencies. Gatina Village in Kawangware being an informal settlement speaks to the study and enable researchers know how communication factors affect diffusion of innovation and influence the adoption or rejection of community currency use and adoption.

The result of this study provides insight as to the communication factors that affect diffusion of innovation in the adoption and uptake of community currencies and more so GP to innovators.

#### Significance of the Study

The findings of this study are useful to academicians, Central Bank of Kenya, and business operators, among others.

#### Academicians

The findings are a reference point for other scholars interested in understanding how communication affects the adoption of community currencies. This is more so among academicians in building up the heuristic process in this subject matter. The findings will also go a long way in beefing up empirical evidence on the subject.

### Central Bank of Kenya

The findings provide the Central Bank of Kenya with important information as to identify the communication factors that influence the adoption of community currencies in the county. This information is crucial in terms of monetary policy making and development.

### Small and Medium Size Business Operators

The study provides small and medium based businesses information on how those communication factors impact their adoption of community currencies.

### Assumptions of the Study

One of the assumptions is that the data collected was a true representation of the target population; a second assumption is that the responses given by the respondents were accurate.

### Scope of the Study

The study was carried out in Gatina Village, Kawangware. The scope of the study was limited to registered GP business owners in Gatina Village, Kawangware. The study assessed the factors affecting the diffusion of GP in Gatina Village, Kawangware. The scope was limited to the communication approach used by GE in the adoption and use of GP in Gatina Village, Kawangware. The researcher focused on the registered GP business owners who actively use the community currency in Gatina Village, Kawangware.

### Limitations and Delimitations of the Study

The scope of this study was limited to Gatina Village in Kawangware; hence the findings may not be useful to other areas since different variables may affect the outcomes. The researcher sought to limit generalizations of the findings, but instead highlighted similarities espoused by other scholars in similar informal settings.

### Definition of Terms

**Adoption:** Rogers (2003) defined adoption as the use of an innovation at its best for any actions available. In this study adoption is the absorption of any innovation that seeks to bring about social change in the livelihoods of individuals or community members.

**Compatibility:** Compatibility is the level of similarity that an innovation seeks to bring about with potential adopter's experiences, values and needs (Rogers, 2003). In this study compatibility is the level of use those adopters assimilate an innovation into their lives.

**Complexity:** Complexity is the ease or hardness in comprehending an innovation and its use (Rogers, 2003). In this study complexity is the difficulty or ease with which a new idea object is understood.

**Complimentary currency:** A complementary currency is a system of account or quasi legal tender that doesn't seek to replace the official currency but is used in a given social system by either an association or individuals in a defined area with the notion of accounting and regulating exchange of goods and services (Fare & Ahmed, 2014). In this study, a complementary currency is non-governmental monetary tender that is used to

trade among businesses in a given local by community members who agree to take part in the currency's business network.

Community currencies: Monetary exchange that is used in a confined area to transact business including goods and services (Ruddick et al., 2015).

In this study, community currencies are an un-official and non-government medium of exchange among businesses and residents in a set geographical locale to facilitate transactions by members.

Diffusion: Diffusion is a type of communication that is concerned with the dissemination of new concepts. It is the process by which an innovation is communicated among the members of a social system through certain channels over time (Rogers, 2003). In this study diffusion is the systematic process through which new ideas are disseminated through two-way communication over a given period among a closed group of people.

Informal Settlement: According to the UN Habitat Programme 1.) An informal settlement is a collective of houses and buildings for that matter where construction of permanent and semi-permanent houses is constructed on a parcel(s) of land to which those living there or those leasing out such properties have no legal claim. 2.) Informal settlements or those that have not been planned for are those that do not conform to zoning laws and planning and building regulations (UN, 1996). In this study, an informal settlement refers to an unplanned or poorly planned physical space that is formed through gradual infiltration into private or government owned land by squatters and especially rural urban migrants, without formal approval from relevant authorities. They

concentrated with residential and commercial activities and mostly located on the outskirts of major cities and towns.

**Innovation:** Schilling (2013) defined innovation as the implementation of an idea into a new process or device. In this study innovation is an idea or object of adoption that is perceived as new.

**Network members:** Individuals or cohorts who share common interests and are bound by a common objective (Ruddick, 2015). In this study, the aspect of exchanging and sharing information is the main reason to form and belong to one. A network is thus operationalized as one that exchanges and shares information on community currencies. This could include economic/social/cultural/religious groups where members meet to discuss or share information.

**Relative Advantage:** Rogers (2003) noted that relative advantage is the extent to which an innovation is perceived to be better than the ideas it takes over from or the degree to which an innovation is perceived to be more cost effective, convenient, and efficient or improves existing applications and practices. In this study relative advantage is the attractiveness or superiority of an innovation or new idea.

### Summary

This chapter has outlined the background of the study, it introduces the focal areas of research. The chapter then delves into the research problem and reviews the same in-depth. The chapter outlines the purpose of the study and why the body of work is important, the research questions and objectives are provided, also highlights the main justification of the study and value of the study. The limitations and delimitations of the

study were subsequently enumerated before progressing to the definition of terms which further sought to operationalize the terms used in this study.

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## CHAPTER TWO

### LITERATURE REVIEW

#### Introduction

This chapter presents an assessment of the significant concepts that form the core of the study including peer to peer communication in development, diffusion of innovation theory and the subject of community currencies. The section starts with a theoretical framework, discussing the theory of Diffusion of Innovation that is related to this study. The chapter then evaluates several scholarly literatures relevant to the study. Finally, the researcher discusses the conceptual framework to illustrate the relationship between the key variables in the research.

#### Theoretical Framework

This study uses the Diffusion of Innovation Theory (DOI) (Rogers 1983) as the theoretical framework to study the effects of peer-to-peer communication in the adoption of the community currency in Gatina village, Kawangware. Rogers and Kincaid (1981) posit that diffusion occurs when targeted communication is relayed over specific channels to members of a defined social system regarding an innovation.

Diffusion of innovation originates from diffusion research carried out to study the social process of how innovations become known and are spread throughout a social system (Severin & Tankard, 2001). According to its originator, Everett Rogers (1995), Diffusion of Innovations is “Essentially a social process in which subjectively perceived information about a new idea is communicated. The meaning of an innovation is thus gradually worked out through a process of social construction.” (p.7)

The process from awareness to adoption in Diffusion of Innovation is all based on aspects of sharing of information on the innovation in a top-down communication process (Musakophas & Polnigongit, 2017). As stated by Rogers (2003), communication channels which include mass communication and interpersonal communication are some of the channels through which an innovation is spread. The aspect of interpersonal communication through which peer to peer communication falls under is indeed a social process that involves interpersonal relationships.

Lazarsfeld, Berelson, and Gaudet (1948) together with Valente and Davis (1999) argued that diffusion of innovations and more so diffusion is transmitted through mass media and peer communication. The scholars hold that this diffusion of innovations that occurs from the mass media to peer communication mainly occurs via opinion leaders within the specific community. Adding to this argument Sivayoganathan and Tedrick (1986) posited that the flow of information from these opinion leaders to would-be adopters then occurs through peer communication. The researcher sought to establish if indeed this was the case in Gatina village Kawangware.

Telg, Irani, Monaghan, Chiarelli, Scicchitano, and Johns (2012) observed that opinion leaders communicate effectively through interpersonal communication since they shape the attitudes of community members regarding a particular innovation within a given social system. Scherer (1979) argued that, although diffusion can occur through the mass media channels which is indeed important in the early stages of an innovation the diffusion process is even more effective when used in tandem with peer communication through interpersonal channels.

Rogers (2003) argued that there are five categories into which adopters may be classified into. Innovators 2.5%, early adopters 13.5%, early majority 34%, late majority 34% and laggards 16%. The researcher notes that for the purpose of this particular study and in-depth analysis into adopter categories and the innovation that is GP shall not be delved into. Rogers (2003) goes on to add that innovators are the first to adopt an innovation followed by the early adopters then early majority and followed by late majority while the laggards are the last to adopt an innovation if at all.

Adding to the argument Rogers (2003) brought about the aspect of cosmopolite and localite channels. Cosmopolite channels bring together potential adopters of an innovation with those outside their social system or community while localite channels bring together potential adopters with those sources within their community or social system. Information on innovations firstly enter a social system through cosmopolite channels however as the diffusion continues the localite channels become more widely used and more effective in terms of diffusion. The researcher observes that for successful diffusion and indeed adoption of an innovation within a given social system peer communication must ensue.

Rogers (1983) argued that in the first stage, which is awareness, there was no information on the innovation to intended recipients but only exposure. This then leads to the interest stage where more knowledge and information on the innovation is sought. The evaluation stage then occurs where the intended recipient decides whether the innovation is compatible with their present or future needs hence decides to try it for a given period. The last stage then sets in whereby the individual decides to continue using the innovation. An innovation, according to Rogers (1983), is the way an idea is

portrayed as new by a person or society. Perception is important since the 'newness' of an innovation is deemed so by a person's reaction to it.

Rogers (2013) stated that the envisaged innovations, which would be adopted by a given society, are meant to develop the individual or community from a traditional way of life to a more complex way of life; a term he coined as modernization. Modernization holds that development occurs because of knowledge transmission. The concept of modernization incorporates the full spectrum of the transition and drastic transformation that a traditional society must undergo in order to become modern (Hussain & Tribe, 2016; Lenin, 1964). However, Cornea and Ayse (1997) observed that the top-down communication approach steeped in modernization theory has its shortcomings, chief among which is not considering the views those meant to benefit. Blackman (2003) argued further that despite the bottom-up approach being used as a result the beneficiaries are not fully absorbed into the projects aimed to benefit them.

Rogers (2003) identified five traits in DOI that will entail in the successful adoption of an innovation. They are namely, relative advantage, compatibility, complexity, trialability, and observability. Rogers (2003) defined relative advantage as the level of perception an innovation is seen as more efficient than the one it supersedes. The scholar further defines compatibility as the magnitude of an innovation being in-line with the needs of would-be adopters, existing values, and past experiences.

Rogers (2003) defined complexity as the ease of understanding an innovation. He also relates this ease of understanding an innovation to the rate of adoption of an innovation. Rogers (2003) noted that the level to which an innovation may be tested on a limited basis is known as trialability.

Finally, Rogers (2003) defined observability as the extent to which the effects of an innovation are visible to others. The scholar adds that individuals are more likely to adopt an innovation faster when they see perceived positive effects and outcomes in others because of adopting an innovation. Gatina Pesa community currency is still being rolled out in Kawangware Gatina village, which thus renders the innovation as new. Further, this theory is suitable because it focuses on individual's uptake of GP community currency which makes this study also recognize this framework as suitable for this research.

#### Criticism of Diffusion of Innovation

Diffusion of innovation is steeped in modernization and Ebigbagha (2016) posited that the theory of participation was developed over the years through several refinements of previous concepts. In the theory of modernization and dependency the global North or a more advanced society that seeks to 'develop' a lesser society in their perspective would be to implement a top-down approach. Further the communication often would be one-way asymmetrical approach. Modernization theory encompasses the world of globalization, where cultural aspects and ideas are easily spread throughout the world, leading to a sort of universal culture that serves as a baseline for all cultures (Chaudhary, 2013).

Peres Muller and Mahajan (2010) argued that innovations which are disruptive in nature have a complex diffusion process, making it hard to determine the relevance of original theories. In this case GP is a monetary innovation that seeks to supplement national currency in the given locale of Gatina Village. The researcher notes that the way

in which the disruptive innovation has been adopted into society has rendered original arguments outdated.

Pace (2013) added credence to this argument by stating that the commonly known models of innovation may not fully shed light on understanding adoption of an innovation.

Mahajan (2014) stated that the diffusions of innovation theory are based on agricultural practices meaning that the adopter categories ought to be redefined in order to be relevant in various fields presently and present-day innovations. Robinson (2009) added that the focus of the theory is on the innovation itself and not the likely changing behavior of the adopter categories. In the case of GP, the focus is on the community currency as an innovation and not on the behavior of the adopter categories which may change over time.

Rogers (1962) holds that the adoption of new innovations in spite of the greater good for the society at large and its well-being is outweighed greatly by social norms. In the case of GP, the standards of acceptance into Gatina village are dependent on social norms. The social norm in any given society affects the rate of adoption of an innovation. The aspects of individualism and collectivism come into play in this instance (Flight, Allaway, Kim, & D'Souza, 2011). Group norms are not strictly followed in an individualistic society where decision making is largely informed by personal beliefs (Perez-Alvarez, 2009).

Wickliffe and Pysarchik (2001) argued that this is the converse in collectivist societies where group decision making is informed by consensus. This 'in-group' collectivism affects the decision making in the short term while the opposite is true in

individualistic societies. Harris and Nibler (1998) observed that in individualistic societies the 'out-group' is comprised of several people which affects decision making in the long-term. Collectivist societies have a higher and faster rate of adoption of innovations more so at an early stage where 'in-groups' have more influence.

In individualistic societies however, the diffusion of an innovation(s) is influenced by various 'out-groups' (Dwyer Mesak, & Hsu, 2005).

Hayden (2013) argued that diffusion of innovations is not participatory in nature. This may play a detrimental role in the uptake of GP since the communication is top down rather than a bottom-up approach where empowerment participation is important for uptake of development projects or innovations that are meant to benefit a given society. Participatory development communication process ensures that all objectives and goals all are met through inclusion of all stakeholders and engagement with beneficiaries (Tuftte & Mefalopulos, 2009). Community currencies are generally regarded as tools for fighting social exclusion and encouraging local development by promoting financial inclusion (Blanc, 2011).

Tuftte and Mefalopulos (2009) stated that there are four levels of participation: firstly, empowerment participation which includes primary stakeholders who take part in the process from the beginning all through to analysis. This participation was not used in Kawangware in the adoption of GP where dialogue is transactional. Collaboration analysis which is the second level co-opts stakeholders in discussing pre-determined objectives. The third level entails stakeholders to provide answers to questions posed by researchers, this is participation by consultation. Passive participation (consultation), the

last level, was used in the adoption of GP in Kawangware Gatina village, through diffusion where stakeholders are informed of achieved goals or goals to be achieved.

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## Technological Innovation Factors That Affect Innovation Adoption

### Communication Channel

Keyton (2011) argued that the act of creating understanding through transmitting information between two people or more can be termed as communication. Cheney (2011) added that the Latin root word *communis*, which means common forms the word communication. The scholar holds that this creation of common understanding arises as a result of sharing information between dyads.

Rogers (2003) stated that mutual understanding between the sender and receiver is a process through which the creation and sharing of messages occurs so as to reach understanding. The sources optimize the use of channels to achieve this mutual understanding. The two types of communication channels identified by Rogers and Shoemaker (1971) are mass media and interpersonal communication where peer to peer communication falls under since it is by word of mouth. The diffusion of an innovation only occurs when information is exchanged by one individual to another about a new idea or several others.

#### Mass Media and Interpersonal Communication Channels

Interpersonal communication is that exchange of information between two people who form a dyad to create a shared meaning (Hargie, 2010). According to Burleson (2010) interpersonal communication is a social process between a sender and receiver who have established a relationship transmit messages in an effort to have a shared meaning so as to accomplish social goals.

Adler (2006) observed that in relation to the diffusion of innovation, interpersonal communication has key elements that are relevant in the adoption process. The uniqueness of each communication interaction between dyads is the first characteristic. The sender and receiver of the communicative process in this case see each other as individuals. The second is the closeness of each communication interaction. In this instance verbal and non-verbal cues all play a role in persuasion and acceptance of the message. The third characteristic is the irreplaceability of the relationship between the dyads. This familiarity plays a big role in terms of persuading in adoption of a message or innovation. The fourth is the instant feedback between the sender and receiver.

McQuail (2010) stated that mass communication is the transfer of information to many people through the use of technology or media. Mass communication occurs when an entity usually media transmits a message to a large audience which is then broadcast to the public. The audience in this case is large and varied (Berger, 2002).

Rogers (2003) argued that radio, television, and newspapers constitute mass media and are faster in disseminating information to adopters about an innovation thus creating awareness and knowledge. Interpersonal communication on the other hand is by word of mouth or face to face communication and includes peer to peer communication. The channels in this case are the connectors between the sender and receiver and may be centered upon certain traits. On the other hand, Tarrow (2011) argued that mass communication is the industrialized process of creating and disseminating messages to the public to create meaning which may either be shared or not.

Rogers (2003) argued that communication easily occurs between individuals who have more in common than those who do not. The aspects of heterophily and homophily

are elements that then draw upon communication. Homophily is defined as the “degree to which two or more individuals who interact are similar in certain attributes such as beliefs, education, social status and so forth whereas heterophily is the degree to which two or more individuals who interact are different in certain attributes” (p.18). This then means that communication easily flows between those individuals within a social system as opposed to those far removed from it. This element then brings to the fore why some groups may share information faster about an innovation as opposed to those who do not have much in common. The choice of communication channels between mass media and interpersonal communication is then determined by either homophily or heterophily.

#### Effects of Relative Advantage on Diffusion

When an innovation is perceived as being better than one that came before it then it can be termed as having a relative advantage. Issues of social and economic advantage all come into play in this context (Rogers, 2003).

Mndzebele (2013) argued that the relative advantage of new innovations tends to bring out the inefficiencies of older and more traditional ones that superseded it. This then increases the adoption rate and efficiencies including levels of productivity. In the case of GP, the adoption rate because of relative advantage would be directly correlated to increased economic status and stability. Robinson (2012) added to this argument by stating that convenience and satisfaction over an earlier innovation will determine the rate of adoption of the innovation by would be adopters.

#### Effects of Complexity on Diffusion

The level at which an innovation is considered as relatively difficult or easy to understand and use is known as complexity. The more complex an innovation is

perceived by members of a social system the harder it is for its adoption rate to increase (Rogers, 2003). In addition, Al-Qirim (2013) noted that the less complex an innovation is perceived by would be adopters, the higher and more likely the chances of its adoption rate. The simplicity of the GP community currency would then mean that the local community would adopt the community currency at a higher rate of adoption. The exchange rate for the currency and the Kenya shilling is on a like for like basis. Meaning one GP is equivalent to one Kenya shilling making it easier to convert and use (Ruddick et al., 2015).

#### Effects of Observability on Diffusion

The rate at which the effects of an innovation can be seen by others is known as observability. However, the effects of some innovations are hard to explain to others and observe in the same measure. The more the effects of an innovation are seen by members of a social system the higher the adoptability rate (Rogers, 2003). In the case of GP, the effects of adoption of the community currencies by businesses directly correlates to the adoption of the currency within the social system.

#### Effects of Compatibility on Diffusion

Rogers (2003) stated that compatibility is the extent to which an innovation aligns with the societal norms, past experiences and needs of would-be adopters.

When an innovation has a high rate of compatibility the intent for a given society to adopt the said innovation becomes even higher. In the case of GP, the high rate of compatibility translates into the higher rate of intention to use the community currency in Gatina village.

In addition, as Mndzebele (2013) pointed out, the diffusion rate of an innovation increases when it is seen as compatible with the felt needs of a given social system. In the GP case, the adopters of the innovation would have to see the need for access to a credit system that is compatible to their social system for the increased chances of adoption to occur.

## General Literature Review

### Peer Communication

Wieten (2010) stated that the context of this communication process between the sender and receiver where meaning is derived is dependent upon context as one communication component. The context the scholar adds may be social, physical, or cultural. The sender's attitudes, knowledge, skill, perception, and culture all influence the message in one way.

The interaction between two people through a communication process that may either be verbal, non-verbal, written, or oral to create a shared meaning can be termed as interpersonal communication (Scheming & Mason, 2013). As argued by Griffin, Ledbetter, and Sparks (2019), interpersonal communication arises as a result of the creation of a dyad between two people who communicate with each other in an effort to derive meaning from their interaction. When we communicate with another person, they conclude we are communicating interpersonally.

### Community Currency

Community currencies encompass a broad range of monetary currencies, which are confined to a specific community for the purpose of facilitating trade in goods and

services for sustainable development (Lietaer, 2001). According to Sahakian (2013), community currencies are not in essence meant to replace the respective national currencies. She adds that the community currencies enable societies that adopt them to be directly involved in distribution of goods and services including financial credit. One of the possible challenges to peer communication could be the level of education as noted by Madula (2018) in an empirical study in Malawi where it was observed that the education gap between two dyads was a key barrier in service provision and disseminating information. In the case of GP, the researcher sought to find out whether the level of education was indeed a barrier to peer communication.

Bohren (2014) observed that the peer communication within the dyad in the case of GP in Gatina village ought to have been designed for the average person to understand such that the language is simple and appropriate. Madula (2018) hold that for effective communication within a peer dyad the language should be clear and concise irrespective of education level. Mrayyan (2007) stated that jargon and in the case of GP, financial jargon by would be experts to the community could be a hinderance to effective peer dyad communication. The experts in this case find it normal to use technical words to explain different aspects of the community currency although this could be a barrier to effective communication which could alienate most would be message recipient. Norouzinia (2016) adds to this argument by stating that non-verbal communication also has different interpretations in different cultures which would then limit effective peer dyad communication. In the case of GP, the researcher sought to establish whether jargon was a barrier in diffusion of the innovation through peer communication.

Norouzinia (2016) stated that time constraints was a barrier to effective peer communication. During peer communication and more so within the setting of Gatina village as observed by Norouzinia (2016) anything that distracted community members from focusing on their livelihoods and economic activities was deemed as a distraction and thus a barrier to effective peer communication. Schiavo (2013) added to the argument by stating that the onus of creating an effective peer communication within a dyad rest on those change agents and opinion leaders with more information on the innovation being diffused and in this case GP.

Park and Song (2005) noted that community members in a dyad often get distracted and do not have enough time to ask pertinent questions or understand the innovation thereof. The researcher sought to establish whether time constraints was a barrier to effective peer communication and hence diffusion of GP in Gatina village. Norouzinia (2016) stated that addressing peer communication within a dyad involves the understanding the effective interaction within a dyad which is two-sided. Corcoran (2007) holds that in health communication wrong content and information delivered within an unsuitable context leads to negative health outcomes. Drawing from the arguments above the researcher holds that wrong information and ineffective peer communication indeed leads to a slow diffusion of a particular innovation and in this case GP, within Gatina village.

### Empirical Literature Review

An empirical literature review constitutes the second phase of this research paper and is discussed hereunder. The researcher observed that there have been previous studies

on how participatory communication and community currency converge. The researcher used previous studies by other scholars to illustrate the diffusion of innovation theory.

### Diffusion in Agricultural Innovations

Faggerberg (2012) observed that innovation in agriculture arises because of utilizing resources and harnessing knowledge. Van der Veen (2010) added that this synergy is then used to increase food production. The process through which adoption of new ideas and agricultural practices pass through the stages of awareness, interest, evaluation, trial, and adoption is termed as diffusion (Beal & Bohlen, 1957).

An empirical study by Pratiwi and Suzuki (2017) interrogated the connection between the social networks of farmers and acquisition of knowledge. The study concluded that information exchange occurred during social interactions by the farmers within the community. The scholars also noted that network of friendship ties did not play a crucial role in knowledge sharing and dissemination. However, they further noted that one's standing or influence in their community had a direct correlation in the request of and access to information. The research also stated that farmers brought together by educational trips to a single site provided the best learning and dissemination results to the community.

An empirical study by Bandera and Rasul (2006) in the North of Mozambique found a relationship between decision and technology adoption. The study showed how farmers' decisions to adopt an innovation were influenced by their immediate families

and their own usage of the same technology and their friendship networks. They further stated that use of an innovation and its eventual adoption was high amongst farmers who were influenced by their families and friends rather than by religious organizations. The research concluded that the social effects are positive when there was a low threshold in the network of adopters and negative when there is a high network of adopters. The results were an inverse U-shaped relationship.

An empirical study in Yunan province in China from 2003-2007 on pest management proved that farmers gained more knowledge when trained in the field as opposed to being trained in classes and lecture halls. The field trips were more beneficial to farmers who acquired more knowledge and synthesized complex notions as opposed to those confined in classes (Yang, Liu, Shan, Li, Zhou, Lu, & Li, 2008). According to Pratiwi and Suzuki (2017) knowledge access is important to ensure that farmers are up to date with the latest trends and innovations so as to ensure an increase in their yields.

Based on the studies above diffusion needs knowledge transmission through active learning and practical know how to ensure adoption of the skills by the farmers. Further to the same peer communication or interpersonal communication is the most impactful in terms of knowledge assimilation and distribution leading to the adoption of a particular innovation (Peshin et al, 2009).

### Conceptual Framework

The illustration in figure 2.1 portrays the conceptual framework where adoption of the community currencies depends on relative advantage, ease of use, observability, compatibility, and complexity are considered as a dependent variable while lifestyle, socio-demographics and socio-cultural factors which are all considered intervening

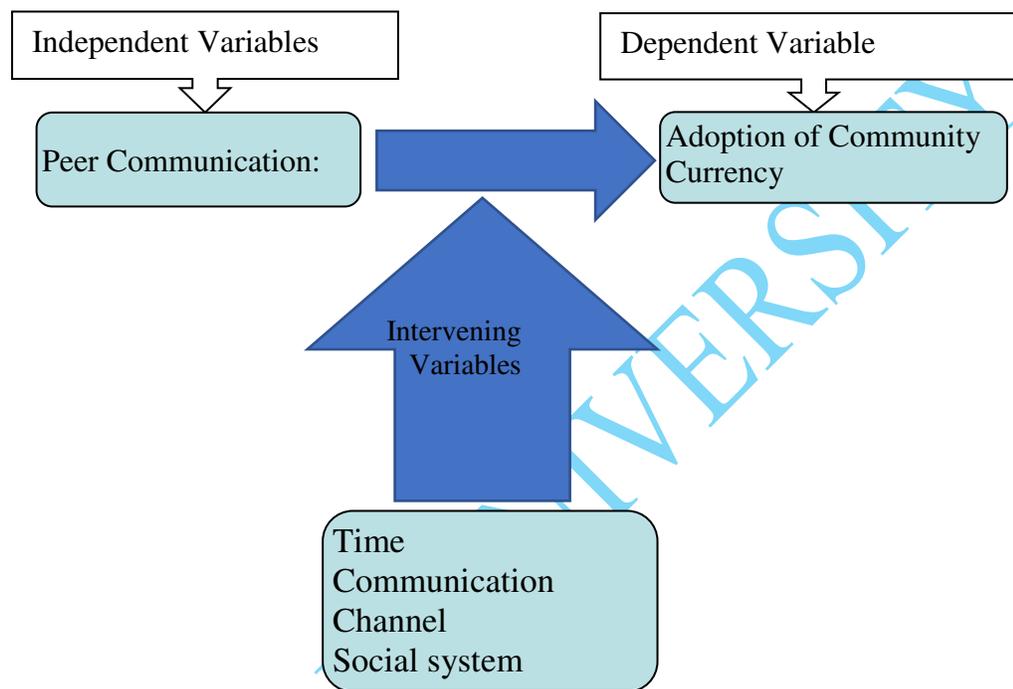
variables. The independent variables are the aspects related to peer communication which include context, message, dyad (sender and receiver) and channel.

This conceptual framework suggests that an innovation is communicated through a communication channel over time into a given social system. This will affect the outcomes of adoption of the community currency if not adequately addressed. The principles of diffusion of innovations include relative advantage, compatibility, complexity, trialability and observability. When all four aspects converge diffusion of innovations is achieved. The conceptual framework also portrays that for diffusion of innovations to occur it must be within a given time, defined communication channel and in a specified social system (Rogers, 2003).

Rogers (2003) observed that time is the scope within which the innovation is diffused and knowledge about the innovation is shared. The communication channel the scholar adds is the mode within which the innovation is shared amongst a set group of people within a society or community. Lastly the social system is the set geographical locale within which the innovation is diffused.

The process through which innovation and development converge in a set period and based in a specific community is termed as diffusion of innovation (Rogers, 2003). This interrogative process seeks to establish the efficacy or not of diffusion of innovation used in Kawangware in the uptake of GP. Modernization theory which has been linked to diffusion of innovation has been fronted as the mode of development in Gatina village in Kawangware in the adoption of GP. The adoption of GP by Kawangware business community and residents denotes that the paradigm as one that ensures sustainable change (Freire, 1983).

Communication may include but is not limited to mass media (radio, newspapers, television, social media among others) and interpersonal (Word of mouth, Peer to peer) communication (Baruah, 2012).



*Figure 2.1: Conceptual Framework*  
Source: Author (2021)

### Summary

The chapter sought to review analytical concepts. The literature review highlights the contradiction between theory and practice. The framework of this research has informed one paradigm which is the diffusion theory of innovation. Modernization was interrogated in regard to its correlation with diffusion. The overarching theoretical framework is however built on diffusion of innovation theory.

The theory informs the research phenomena in development. The aspect of peer-to-peer communication has also been highlighted in regard to its effects on the adoption of the innovation.

The next chapter looks at the research design and methodology that the researcher used when carrying out the research. The chapter discusses in more detail the population under study and the methods that were used to collect and analyze data from the target population.

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## CHAPTER THREE

### RESEARCH METHODOLOGY

#### Introduction

This chapter provides an overview of methodology used in this study. Methodology refers to ways of obtaining, organizing, and analyzing data. Methodology decisions depend on the nature of the research question (Polit & Hungler, 2004). It is the theory of correct scientific decisions (Mouton & Marais 1996). The discussion in the chapter is structured around the research design. The research design ensured that the analysis of data is relevant to the purpose of this research. The population was an important element that spoke to this body of work and included certain criteria that has a common thread binding the participants together. The sampling undertaken constituted the sample size which represented the larger universe. Primary and secondary data constituted data collection which led to data analysis. Ethical considerations were also discussed before concluding with the summary.

#### Research Design

Mugenda and Mugenda (2008) posited that research designs are mainly correlation and descriptive. Descriptive research refers to research studies that have as their main objective the accurate portrayal of the characteristics of persons, situations, and groups (Polit & Hungler, 2004). Descriptive design ensures that the profile of a situation is developed by accurate and concise information from the traits highlighted from an event or situation (Chandran, 2004). Therefore, the researcher used quantitative

and qualitative data. Berg (2007) mentioned that a qualitative research approach provides “a means to accessing unquantifiable facts” and to understand the structure of a particular subject.

In that context, the nature of this study and the type of information that was required, called for the application of both qualitative and quantitative methods to obtain valid results. The researcher employed descriptive research design as the method to achieve the objectives of this study. This approach was used to describe variables rather than to test a predicted relationship between variables. In this study, descriptive approach was adopted for collecting data of experiences of business owners using GP in Kawangware, Gatina Village.

#### Population

The population includes all elements that meet certain criteria for inclusion in a study (Burns & Grove 2003). In this study, the researcher concentrated on the community currency project that was rolled out in Gatina Village, Kawangware. The research focused on adoption of the project in this region of Kenya. Therefore, the population for this study was all the people living in Gatina Village in Kawangware, Nairobi. The Kenya National Bureau of statistics Housing Survey (KNBS) (2019) states that Kawangware has a total population of 291,565. The report adds that Gatina has a total population of 43,627 with majority of the population here living in the informal settlement.

#### Target Population

The community in Gatina Village Kawangware that adopted the community currency and is seen to be thriving in relation to other project areas in the country

(Mombasa, Kibera and Kangemi). The focus of the study was the town of Kawangware because it had the highest concentration of registered business owners who have successfully adopted a community currency - Gatina Pesa.

The target population for this study consisted of the business owners who have adopted GP. According to the GE empowerment data, the entire universe of business users of GP in Gatina Village Kawangware was 250 (Ruddick et al., 2015).

### Sample Size

According to Banarjee and Chaudhry (2010), sample size is defined as the number of observations present in a sample. It is essential in any empirical study as it has the goal of making inferences about a population from a sample. A sample size constitutes a portion of a defined population. The universe of respondents is 250. From this total the study limited its sample size to 20% of the said universe. According to Mugenda and Mugenda (2012), any sample size in the limits of 10% and 30% presents a good picture of the target population. By using 20% the study sought to confine itself within the margins of presenting a true reflection of the target population (Mugenda & Mugenda, 2012).

From a universe of 250 respondents the researcher had 50 users of GP representing the sample size. The sample represented 20% of the population. ( $250 * 20 / 100 = 50$ ). The sample size of this study was 50 respondents who have adopted the use of GP in their businesses. All fifty participants were issued with a questionnaire. One interview with an official of GE was carried out.

## Sampling Techniques

A probability sampling design was used for the study. Simple random sampling provided cases rich in information for in-depth study. The researcher obtained the master list from GE, which included all the registered business owners using GP. The researcher then used simple random sampling technique based on their usage of GP (Polit & Hungler, 2004). The simple random sampling without replacement was conducted once the researcher obtained the list. A lottery method was used where numbers represented the respondents and the decided number of slips being 50 was picked.

## Data Collection Instruments

The researcher used two research tools in collecting data: questionnaires and in-depth interviews. The researcher chose the two research tools because they covered the quantitative and qualitative aspects of this research. Fifty questionnaires were distributed while one in-depth interview was conducted. The questionnaires were in English. The research assistants explained and clarified to the respondents in English or Swahili when there was need and filling in of the questionnaires was done in English. The researcher adopted a five-point Likert scale format to ensure that respondents were guided well in answering the questions.

Joshi, Kale, Chande, and Pal (2015), stated that an infinite number of definable variations may lead a researcher to develop 'clusters' of responses which may then contextualize attitudes. Thus, the instrument was divided into four sections based on research objectives. Section A contained questions on the respondent characteristics, section B focused on the role of peer communication in the adoption of community currencies, section C contained questions on effects of peer communication, section D

looked at the factors that influence adoption of community currencies. The questionnaires had both closed and open-ended questions. The sample size constituting 50 respondents who were active users of GP was given questionnaires since they represented the total universe.

An interview guide was used as a framework by the researcher to conduct the in-depth interview. Since the researcher relied on this technique in the field as part of research it was approached as a collaborative effort between both the interviewee and the researcher (Neuman, 2000). The senior manager was interviewed since he is in strategic management and is critical in the roll-out of the initiative. Additionally, he addressed new and emerging issues since he was privy to firsthand information that not everyone could access (Angelopulo et al., 2004).

#### Types of Data

Primary data constituted one of the major sources of data that researchers rely on (Kombo & Tromp, 2006). According to Kothari (2004) information sourced in the field by the researcher is termed as primary data. The scholar further adds that this data is in its original form since it is collected for the first time.

#### Data Collection Procedures

Data for this research was collected through questionnaires and a key informant interview. The researcher organized a meeting with GE officials to identify GP business owners. The researcher requested the officials to provide information about the GP business owners and contacts. The researcher communicated with the various GP business community group leaders who invited the GP business owners to take part in the research. The researcher requested the GP officials to organize meetings for the

researcher and research assistants to meet with the groups. The researcher used simple random sampling where respondents were issued with questionnaires.

The researcher had three research assistants. The researcher planned on tapping into networks of fellow colleagues to source for the research assistants through a referral process.

### Pretesting

Pretesting is a means through which questions are validated or not. It is a means through which questions are posed to see whether they are understood by those likely to answer them (de Leeuw, 2001; Drennan, 2003). Pretesting is conducted so as to adequately modify and enhance response rates in the questionnaire. Further it can be used to ascertain if new measures will perform in the field as envisioned (Greco & Walop, 1987). The appraisal of a pretesting method was involved; (a) respondents were urged to express openly views whilst answering the test questionnaire, and/or (b) the researcher or interviewer asked respondents questions to ascertain if the questions are being understood as intended and being interpreted as intended (Foddy, 1993).

Foddy (1993) has offered a critical appraisal of pretesting methods. It is typical for the purpose of pretesting that:

1. Respondents were encouraged to verbally express themselves out loud while completing the test questionnaire and/or
2. The interviewer introduced probe questions to check that the questions are understood and being interpreted as intended.

The questionnaires were pretested on 15 community currency users from Kangemi, which had a similar setting. The interview guide was also pre-tested on one top

official from the Kangemi project. The study ensured that the respondents were not the same ones used in actual data collection since the location of the projects was in different locations.

### Data Analysis Plan

Data analysis is a mechanism for reducing and organizing data to produce findings that require interpretation by the researcher (Burns & Grove 2003). Data analysis is a challenging and a creative process characterized by an intimate relationship of the researcher with the participants and the data generated (De Vos 2002). Both qualitative and quantitative methods of data analysis were used by the researcher.

The researcher posed both closed-ended questions and open-ended questions set within the questionnaires to capture both aspects of quantitative data analysis. Data gathered from the questionnaires were coded then keyed into the Statistical Package for Social Sciences (SPSS) software for analysis. The results were then presented using tables, pie charts, and bar graphs.

The interview was recorded, and the data transcribed in preparation for analysis. Marshall and Rossman (2011) argued that systematic examination of the peer-to-peer communication in order to document patterns objectively all form the analytical strategy. Qualitative data from the Key informant interview was analyzed using Thematic Content Analysis. Thematic analysis was used where the researcher established themes and patterns from the data then presented them in a narrative form.

## Ethical Considerations

Before administering the questionnaires and conducting the in-depth interview, the researcher visited the area chief to make his intention known and to have permission from the local authority. Once consent was given from the area Chief, the researcher then met with the key coordinators of GE to seek access to the list of users of GP in Gatina village, Kawangware. At the point of collecting data, the researcher explained to the participants what the research is about and the purpose for it.

Secondly, to ensure confidentiality or privacy, the researcher did not ask for their contact information on the data collection instruments. Privacy refers to the freedom an individual has to determine the time, extent, and general circumstances under which private information will be shared with or withheld from others (Burns & Grove 2003). The researcher asked participants to express their consensus to participate and that the participants are of consensual age. Participants were also asked not to put their contact information on the questionnaires or state them in the interview, unless they need clarification on any issue or would like to provide more information off the record. Further, the participants were informed that they could withdraw from the study at any time if they wished to. This is one of their rights as willing participants (Holloway 2005).

Results are disseminated in the form of a research report. The report should stimulate readers to want to study it and determine its feasibility for implementation (De Vos 2002). The report should not expose the secrets or weaknesses of GE to the readers but should recommend improvements of the service. The findings will be made available for use through open or negotiated access, considering the constraints which may arise from ethical, privacy, confidentiality, cultural, and intellectual property.

## Summary

This chapter has presented the research design, data collection, population, sample and sampling method, the tools and procedure of the data collection and data analysis process and instrument of the study. The next chapter addressed the data presentation, analysis, and interpretation.

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## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

#### Introduction

This chapter presents results of quantitative data analysis obtained from questionnaires administered to the people in Gatina Village, Kawangware who adopted the community currency. The questionnaire was divided into four sections. Section one describes the demographic characteristics of the respondents, section two sought to find out the role of peer communication in the uptake of Gatina Pesa, section three describes the effects of peer communication on the uptake of Gatina Pesa and the final section identified factors that affect the uptake and usage of Gatina Pesa.

#### Analysis and Interpretation

##### Response Rate

Questionnaires were administered to 50 respondents in Gatina Village, Kawangware who were using the community currency. All the questionnaires from the respondents were dully filled and returned resulting in a response rate of 100%. The 100% return rate was realized because the officials of Gatina Pesa informed the respondents beforehand as shown in Table 4.1.

*Table 4.1: Response Rate*

Category	No of questionnaires administered	No. of questionnaires Returned	Response rate (%)
Respondents	50	50	100

Mugenda and Mugenda (2008) indicated that, in descriptive research a response rate of 50% is satisfactory for analysis and reporting, 60% is good and 70% or more is excellent implying that this study's response rate was excellent. This means that the response rate of 100% in this study was excellent to progress with the analysis of data, drawing conclusion and making the recommendations.

### Demographic Characteristics

The study sought to find out the demographics of the respondents. This included gender, marital status, age, level of education and how often they use the Gatina Pesa, community currency.

#### Gender of the Respondents

The study sought to find out the participants' gender to understand the adoption of peer to peer among men and women. To achieve this, the respondents were asked to state their gender and the results were as presented in Figure 4.1.

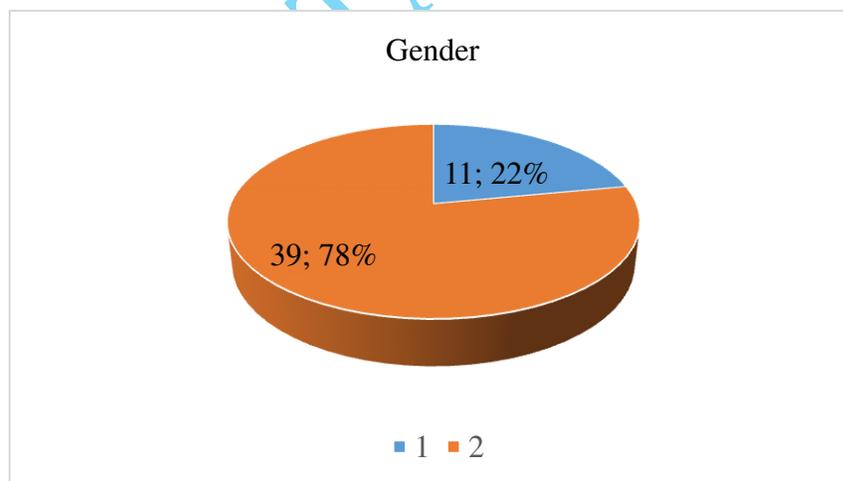


Figure 4.1: Gender of Patient Respondents

From the findings, 39(78%) of the respondents were female, while 11(22%) were male. Most of the respondents represented in the study were female. Two studies found that women are more anxious about using IT (Broos, 2005; Freeman, 2009).

Venkatesh and Morris (2000) observe that an earlier study posited that women indeed embrace software technology and are aware of its use and efficiency. Women, the scholars argue find the said technologies to be quite useful but find it hard to navigate and use.

Women and ethnic minorities denoted in a survey done on patrons of community technology centers that these technology hubs were fundamental for the connectiveness of these two distinct groups (Chow, Ellis, Mark, & Wise, 1998). This finding, however, is inconsistent with a study done by Venkatesh and Morris, (2000) who observed the role of gender in the adoption and usage of technology, highlighting gender as one of the most important variables when adopting technology. Their findings showed that male users use technology more than females.

#### Marital Status

The respondents were asked to indicate their marital status. The findings are as shown in the Figure 4.2.

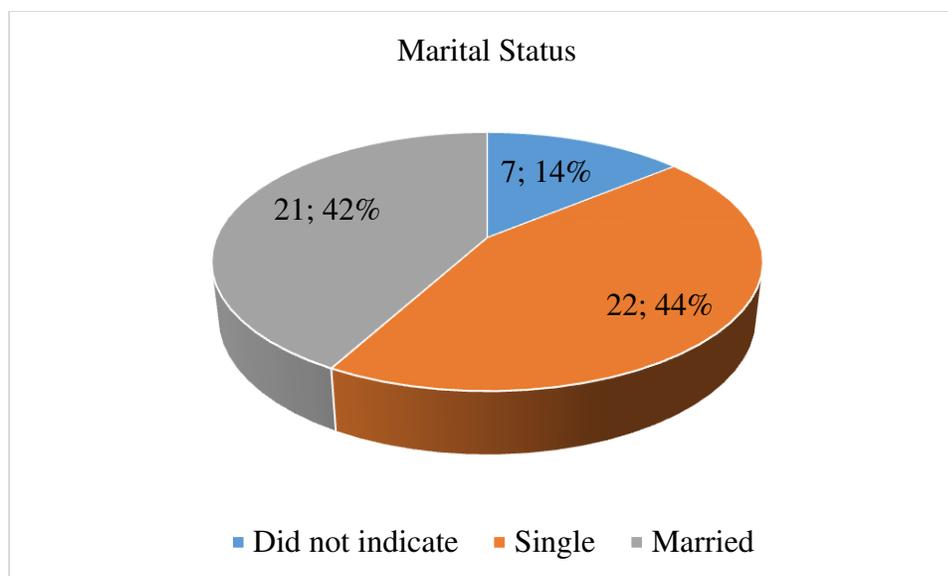


Figure 4.2: Marital Status

The findings indicated that majority (44%) were single, 42% were married while 14% did not disclose their marital status. This means that majority of the respondents who disclosed their marital status, were able to make decisions that affects their livelihood. In a study on the adoption of alley farming by women farmers, Francis and Atta-Kra (1988) discovered that there is a connection between marital status and adoption of alley farming by women. Married women are said to participate more actively than single women in projects that can increase their income.

#### Age Distribution of the Respondents

In order to ascertain their age bracket, the respondents were asked to indicate their age bracket. The findings are as shown in the Figure 4.3 below.

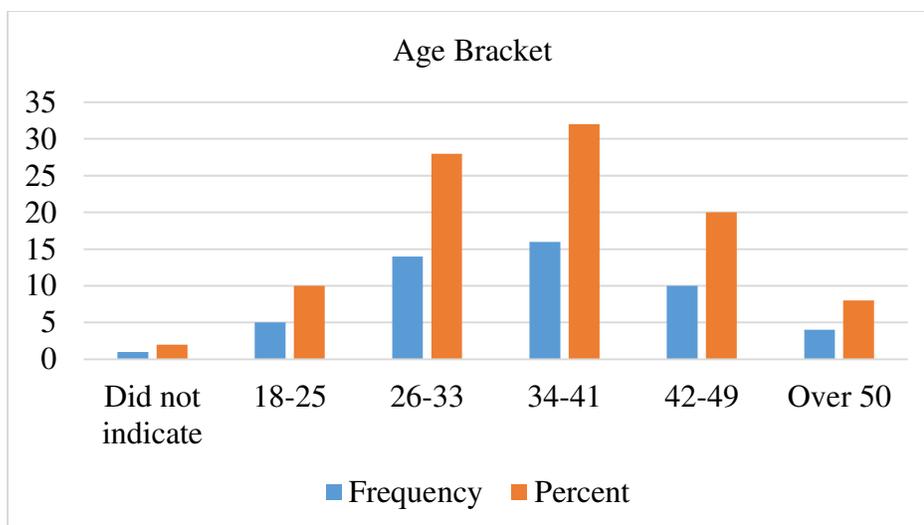


Figure 4.3: Age Distribution of the Respondents

The study findings in Figure 4.3, indicate that 16(32%) of the respondents fall in the age bracket of 34-41, followed closely by 26-33 and 42-49 at 14(28%) and 10(20%) respectively. The respondents under age 25 and above age 50 were the minority at 5(10%) respectively. This implies that the views of respondents cut across all ages. These results show that 80% of the respondents were aged between 26 and 49 years. According to Lapple and Van Rensburg (2011) the early adopter categories is infused with youthful individuals who are more educated, have a higher income and a higher social status within their community. This finding is inconsistent with the fact that the lower the age, the more the social influence (Rivis & Sheeran, 2003). However, the fact that more influence was huge for the above 30 years is consistent with prior research on difference between young and old as far as technology and innovation is concerned. However, little is known about the intervening effects of age regarding technology adoption (Venkatesh & Morris, 2000).

#### Level of Education

The level of education of the respondents was also assessed and the findings are as shown in Figure 4.4.

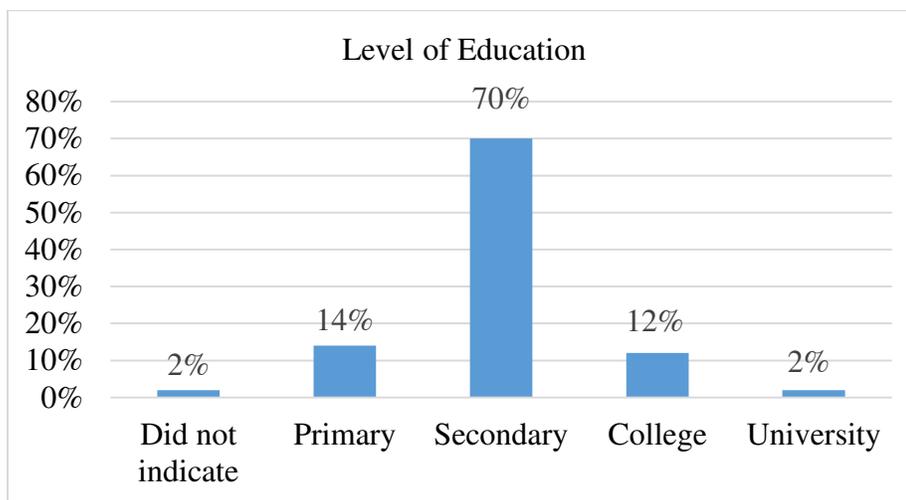


Figure 4.4: Level of Education of the Respondents

The Figure 4.4 indicates that majority (70%) of the respondents consisted of those with Secondary level as the highest level of education, 14% with primary education, 12% and 2% indicated college and University as the highest level of education, respectively. From the findings, the respondents were educated enough to provide reliable responses for the purpose of this study. Ainamo (2009) argued that innovators will go out of their way to seek and indeed find innovations. The scholar adds that they are educated persons however the researcher observes that the term 'educated' could indeed mean basic level of education hence interpreting and assigning meaning could indeed vary depending on the context and indeed the innovation being diffused. Rogers (2003) added that the innovators have a great threshold in terms of interpersonal networks and combine aspects of cosmopolite and localite. In comparison to innovators, the scholar adds, early adopters have more localite networks and hold a central role within a particular social system.

Rogers (2003) added opinion leaders hold social influence within their communities and may appear in the category of early adopters.

Ainamo (2009) stated that early and late majority categories heavily rely on observability and ease of use of an innovation and once they are satisfied that the social system and those surrounding them have embraced or will embrace an innovation, they readily accept the innovation. In contrast the scholar adds that the late majority are more apprehensive to adopt an innovation and are lower in socio economic status in relation to early majority, early adopters, and innovators. Rogers (2003) added that laggards base their decision largely on observability before accepting to adopt an innovation and this largely means that they adopt an innovation once it is no longer innovative. Ainamo (2009) further argued that due to their inclination and bias towards innovations laggards and late majority know less about the effects of the innovations than those in the other categories.

According to Cramb and Nelson (1998), education is not an important factor in explaining adoption of new technology. In most cases, whether an individual has a formal education or not has no relationship with his or her adoption behavior.

#### Use of Gatina Pesa

There was need for the study to understand the frequent use of Gatina Pesa. The researcher asked the respondents to state how often they used the community currency.

The findings are as shown in Table 4.2.

*Table 4.2: Use of Gatina Pesa*

	Frequency	Percent
Did not indicate	3	6
Daily	6	12
Once a week	18	36
Every other week	15	30

Once a month	8	16
Total	50	100

Findings in Table 4.2 indicate the use of Gatina Pesa by the respondents. Majority of the respondents (36%) use it once a week, 30% use it every other week, 16% use it once a month and 12% use it daily. About 6% of the respondents did not respond to the question. This indicates that the respondents were using the Gatina Pesa currency. Soder (2008) states that the useability and adaptability of certain community currencies by those in a social system should be grounded on their freedom to participate due to the benefits that may arise as a result. The scholar adds that this participation has a great bearing on the community's economic stability.

#### Role of Peer Communication in the Uptake of Gatina Pesa

In order to understand the role and effectiveness of peer communication in the uptake of Gatina Pesa, the researcher asked the respondents to indicate the extent to which they agree to a set of statements. The statements are as shown in the Table 4.3.

*Table 4.3: I got to Learn of Gatina Pesa through my Neighbor*

	Frequency	Percent
Not true	7	14
Neutral	9	18
True	30	60
Very true	4	8
Total	50	100

From the findings, the study found that 68% of the respondents learnt of Gatina Pesa from their neighbors, 14% did not and about 18% were uncertain of the statement. A lot of innovation research shows the significant role that social influence, peer pressure, and

social learning plays in affecting not only the final adoption decision, but also the evaluation of the attributes of the innovation. Diffusion of innovations theory's utility at identifying factors influencing adoption, as well as its wide applicability to a variety of contexts, make this theory useful for understanding how communities respond to innovations and make adoption decisions (Rogers, 2003).

According to Katz (1957), opinion leaders in the community diffuse the innovation to peers through a two-step flow communication model. This the researcher observes could mean that the opinion leaders are more believable to those who perceive them as having similarities in terms of social contexts. In this case in Gatina village the innovation to the opinion leaders was diffused to them through those well versed with GP. This in turn meant that the opinion leaders conveyed the same information to their spheres of influence using dyads. However, adding to this discourse, Rogers and Shoemaker (1971) observed a weakness in the two-step flow of information which included the opinion leaders as central. The scholars posited that every person within the community could receive information through interpersonal channels or through the mass media. In the case of GP, the respondents noted that they received information regarding the innovation from their neighbors.

#### Face to Face Interaction

The study sought to understand if face to face interaction helped the respondents to understand Gatina Pesa. The Table 4.4 gives the summary of the findings.

*Table 4.4: Face to Face Interaction Helped Me Understand Gatina Pesa*

	Frequency	Percent
Not true at all	1	2
Not true	1	2
Neutral	15	30
True	28	56

Very true	5	10
Total	50	100

The study findings showed that 66% of the respondents agreed that face to face interaction helped them understand Gatina Pesa 4% did not agree while 30% of the respondents were uncertain if face to face interaction helped them understand Gatina Pesa. Face to face interaction is a rich media. This is supported by Theory (MRT) of Lengel and Daft (1988) suggested a connection between the richness of a media type and its effectiveness. The richer the media type, the more effective communication should be. The degree of richness depends on three characteristics, Possibility of non-verbal communication, Possibility of immediate feedback, and Personal relationship. Therefore, face-to-face meets all three characteristics hence rich media.

#### Recommended Gatina Pesa to Neighbor

The study sought to find out if the respondents recommended Gatina Pesa to Neighbors. The findings are as shown in Table 4.5.

*Table 4.5: Recommended Gatina Pesa to Neighbors*

	Frequency	Percent
Not true at all	1	2
Not true	1	2
Neutral	3	6
True	30	60
Very true	15	30
Total	50	100

The study found out that 90% of the respondents recommended Gatina Pesa to their neighbors, 4% did not and 6% were not sure if they recommended. This means that the community currency is useful to the participants that is why they recommend to others.

Ranalli (2013) discussed the usefulness of community currencies in the refugee camps, suffering from shortage of currency and local resources.

#### Whether Information Received was Enough to Make a Decision.

The study asked the respondents whether the information received was enough for them to make a decision about using Gatina Pesa. The findings are as shown in Table 4.6.

*Table 4.6: The Information Received was Enough to Make a Decision.*

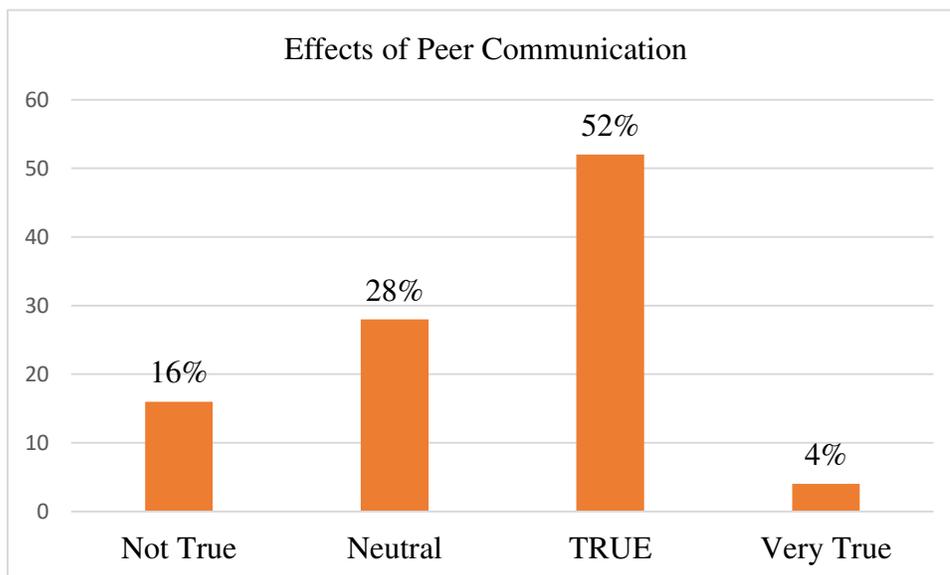
	Frequency	Percent
Not True at all	1	2
Not true	1	2
Neutral	10	20
True	29	58
Very true	9	18
Total	50	100

The study findings showed that 76% of the respondents agreed that the information received was enough for them to make a decision about using Gatina Pesa. A significant 4% did not agree and while 20% were not sure if it did.

#### Effects of Peer Communication on Uptake of Gatina Pesa

To find out the effects of peer communication in the uptake of Gatina Pesa, the respondents were asked if peer communication was a factor in their adoption of Gatina

Pesa. The findings are as shown in the Figure 4.5



*Figure 4.5: Effects of Peer Communication on Uptake of Gatina Pesa*

About 28% of the respondents were not sure if peer communication affected their uptake of Gatina Pesa. About 56% believed peer communication affected their uptake. However, 16% of the respondents responded that peer communication did not affect their Uptake of the Gatina Pesa currency. According to Bandura (1977), social learning theory is the aspect through which others within a given area adopt an innovation or behaviors of others through observation. The scholar adds that social learning also occurs through interpersonal networks which in the case of GP involves peer to peer communication through dyads. Further the aspects of behavior change come about through social learning as a result of interpersonal communication.

#### Impact of Peer Communication on the Perception of Gatina Pesa

The study sought to find out if peer communication affected the respondents' perception of Gatina Pesa. The findings are shown in the Figure 4.6.

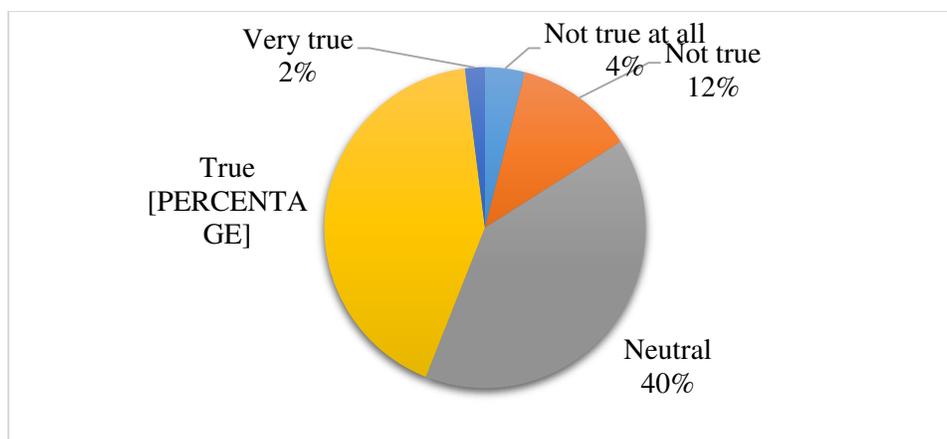


Figure 4.6: Peer Communication and Perception

The findings indicate that (44%) of the respondents believed that peer communication affected their perception of Gatina Pesa, 40% were uncertain and a significant percentage of 16% believed that peer communication did not affect their perception of Gatina Pesa. With these findings the researcher observed that homophily, which is the aspect of similarity between people may indeed have been a barrier in this happenstance insofar as perception of GP was concerned. Rogers (2003) argues that the aspect of elitism occurs because of this homophily, and flow of information occurs horizontally rather than vertically within the particular social system and in this case Gatina village. This diffusion slows down hence the perception is confined only within the particular cadre of elites who are diffusing the innovation amongst themselves and not to non-elites.

### Peer Communication and Increase in Adoption of Gatina Pesa

To ascertain the role of peer communication in the adoption of community currencies in Gatina village, the respondents were asked whether peer communication led to increased adoption of Gatina Pesa. The results are as shown in the Table 4.7.

*Table 4.7: Peer Communication and Increase in Adoption of Gatina Pesa*

	Frequency	Percent
Not true	2	4
Neutral	17	34
True	26	52
Very true	5	10
Total	50	100

The findings showed the majority (62%) believed that peer communication led to increased adoption of the community currency, 4% believed it did not. This means that peers influence the adoption by encouraging to use the innovation or not to use. This is as noted by Talukder (2008) who found social factors like the influence of peers and the social network. The ability to bring about behavior change and adoption through a dyad can be termed as opinion leadership (Rogers, 2003). In the case of GP, the researcher notes that peer communication between the dyads was through opinion leaders who had information and know how on the innovation hence diffusion of the same to their spheres of influence through interpersonal communication. As Rogers (2003) added the aspects of homophily and two-step flow working in tandem led dyads to increase in the uptake of GP.

### Familiarity with the Person Explaining Gatina Pesa

The researcher also sought to find out if the respondents were familiar with the person explaining the community currency, Gatina Pesa. The findings are as shown in Table 4.8.

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*Table 4.8: Familiarity with the Person Explaining Gatina Pesa*

	Frequency	Percent
Not true at all	1	2
Not true	4	8
Neutral	11	22
True	22	44
Very true	12	24
Total	50	100

The majority of the respondents (68%) agreed that they were familiar with the person who explained the concept of Gatina Pesa while 10% said they were not familiar with the person. A significant 22% of the respondents were uncertain that they were familiar with the person who explained the concept of Gatina Pesa. As discussed by Diniz, Cernev, and de Albuquerque (2013), there is a relationship between actors that bring the new technology infrastructure and the community that issues the currency. Therefore, the familiarity advocates for the adoption of the new currency.

The first research objective of the study highlighted the role of peer communication in the adoption of community currencies in Gatina village. The study established that peer communication as indicated by (68%) of the respondents, played a role in the uptake of Gatina Pesa. Within social systems individuals seek to influence others to adopt similar behaviors and worldviews as themselves (Smudde & Courtright, 2015). Peer communication affected positively the uptake and perception of Gatina Pesa. The findings established that peer communication was effective in sharing the message about community currency.

#### Use of Gatina Pesa

The study sought to find out from the respondents if Gatina Pesa is easy to use. The findings are as shown in the Table 4.9.

*Table 4.9: Use of Gatina Pesa*

	Frequency	Percent
Not true at all	1	2
Not true	2	4
Neutral	10	20
True	33	66
Very true	4	8
Total	50	100

The findings indicated that the majority (74%) of the respondents found Gatina Pesa easy to use but only 6% did not find it easy to use. However, 20% of the respondents were not sure of the ease in using Gatina Pesa. This agrees with Seyfang and Longhurst, 2013 who believed that use of community currency has been rising over the past two decades and it is possible to count a large number of active community currencies.

#### Explanation on how to Use Gatina Pesa

The researcher sought to find out if the explanation on how to use Gatina Pesa was easy to understand. The results are as shown in the Table 4.10.

*Table 4.10: Explanation on How to Use Gatina Pesa*

	Frequency	Percent
Not True	0	0
Neutral	20	40
True	20	40
Very true	10	20
Total	50	100

The findings indicated that 60% found the explanation easy to understand and 40% were not sure if the explanation was easy to understand or not. However, none of the respondents found the explanation hard to understand.

### Time Spent Explaining Gatina Pesa

The study also sought to understand if the time spent to explain the community currency concept was adequate. The findings are as shown in Table 4.11.

*Table 4.11: Time Spent to Explain Community Currency was Adequate*

	Frequency	Percent
Not true	1	2
Neutral	12	24
True	31	62
Very true	6	12
Total	50	100

The study found that majority (74%) found the time adequate while 2% found the time inadequate. A significant 24% were not sure if the time was adequate or not. Kapur (2018) adds that time could indeed be a barrier to effective communication. The scholar observes when an inordinately large amount of time is spent in conveying a message either oral or written then this could indeed become a barrier to effective communication more so when efficiency in conveying the message is paramount. In the case of GP, the public found the time spent adequate and not a distraction or a barrier.

### Technicality of Face-to-Face Communication

The study sought to find out if the face-to-face communication was technical and the findings are as shown in Table 4.12.

*Table 4.12: Was Face to Face Technical?*

	Frequency	Percent
Not true at all	1	2
Not true	2	4
Neutral	3	6
True	16	32
Very true	28	56
Total	50	100

The findings showed that 88% of the respondents believed that the face-to-face communication was technical, 6% believed it was not and another 6% were not sure if the face-to-face communication was technical. Patoko (2014) noted that when language is technical and does not convey the intended message to the recipient then it can be termed as jargon. The scholar adds that this could as be writings that are too technical and explanations that do not convey intended meaning. In the case of the findings above the respondents noted that meaning was not conveyed due unfamiliar words. When words are meaningless, and transfer of knowledge becomes difficult as a result of either oral or written words then this can be termed as jargon (Patoko,2014). As observed by Rogers (2003), that language could indeed be a barrier to diffusion. In the case of GP, the technical financial language used to describe the innovation and the intended development it aimed to bring about the researcher notes could possibly have been a barrier to the uptake of GP by respondent.

Shulman and Bollock (2020) added that jargon and technical information to the public tends to alienate the intended receiver of the message. The scholars hold that when information becomes technical with jargon infused people tend to ignore the information and indeed messaging. Further they note that the intended receivers discredit this information based on jargon and its technical nature. They add despite further information explaining the jargon people will actively resist the information to the detriment of the innovation being diffused and in this case GP.

#### Communication Approaches Employed in Creating Awareness About GP

The study sought to understand the communication approaches employed by the management in creating awareness of Gatina Pesa. The senior manager was interviewed

since he is in strategic management and is critical in the roll-out of the initiative. The manager responded that *some of the approaches include SMS, visuals (placards, brochures, fliers), Magnate Theatre, Field visits*. According to Sanga (2021) magnate theatres have been used as a means of communication to convey information to the public. The magnate theaters also rely on participation and feedback from the audience watching. The scholar observes that the magnate theatres create a safe space and trust to those watching by also creating both protagonist and antagonist characters in a bid to pass on messages. In the case of GP, the magnate theaters the researcher notes were used to convey messages on GP, and its intended impact including all the know how needed by the community.

When asked if peer communication has been applied in creating awareness about GP, the manager responded in the affirmative by stating yes. *Through rewarding referees, rewarding users with weekly bonuses. This confirms the peers were used as referees in creating awareness of the community currency*. Rogers (2003) observes that opinion leaders are able to impact and bring behavioral change to those in a given society. In the case of GP, the peer-to-peer communication conducted by familiar faces were the opinion leaders who were able to convey the usefulness of the innovation and hence it's adoption.

Interview respondents saw the role of community currency improving social interaction, increasing information channels, creating a heightened sense of community, and increasing civic participation. The manager was asked if peer communication affected the adoption of GP, and the response was as follows: *With regular rewards peers get their network in different localities registered thus bigger networks of people using the currency*.

The in-depth interview with the senior manager established that peer communication was applied in creating awareness about Gatina Pesa through rewarding referees and rewarding users with weekly bonuses. Santos (2009) notes that the nature of money and its identity tied to a territory has been upended by community currencies which remodels the relationship between the national and the local to stand as a means of payment, which may also be an instrument for fighting the problems caused either by money in the capitalist system or by the system itself (Santos, 2009).

### Summary of the Key Findings

This chapter has discussed the findings as analyzed from the questionnaires and the interview. The first research objective of the study highlighted the role of peer communication in the adoption of community currencies in Gatina village. The study established that peer communication as indicated by (68%) of the respondents, played a role in the uptake of Gatina Pesa. Smudde & Courtright (2015) argue that in the context of a particular society there is a push and pull by various people or individuals to encourage others to a paradigm shift in having similar worldviews as they themselves have.

Peer communication affected positively the uptake and perception of Gatina Pesa. The findings established that peer communication was effective in sharing the message about community currency.

### Summary

The chapter has discussed the key findings based on the data analysis. It has also given interpretation of the data based on the objectives of the study. The next chapter has

provided key findings based on the study objectives and has also give the conclusion, recommendations, and suggestions for further studies.

## CHAPTER FIVE

### DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

#### Introduction

This chapter has discussed the key findings of the study in relation to the study objectives and the theoretical and conceptual frameworks. The chapter then makes conclusions and explains whether research questions were answered. It then provides recommendations of the study and suggests areas for further study.

#### Discussions of Key Findings

##### Role of Peer Communication in the Adoption of the Community Currency

The first objective of this study was to highlight the role of peer communication in the adoption of community currencies in Gatina village. The study established that peer communication played a role in the uptake of Gatina Pesa as confirmed by 32% of the respondents who believed that peer communication affected their uptake and another 44% of the respondents believed that peer communication affected their perception of Gatina Pesa. The study also established that peer communication contributed significantly to the uptake of the Community Currency, Gatina Pesa as indicated by 62% who believed that peer communication led to increased adoption of Gatina Pesa. Rogers (2003) stated that the aspect of interpersonal communication through which peer to peer communication falls under is largely hinged on dyads who in turn form interpersonal relationships through this process socially.

The in-depth interview with the senior manager established that peer communication was applied in creating awareness about Gatina Pesa through rewarding referees and rewarding users with weekly bonuses. The study also established that peer communication affected the adoption of Gatina Pesa due to rewards given to users who invite their peers. Hence, the network of people using the currency increased. This agrees with Scherer (1979) who argued that although diffusion can occur through the mass media channels which is indeed important in the formative stages of an innovation the diffusion process is even more effective when used in tandem with peer communication through interpersonal channels.

The findings show that peer communication was effective in sharing the message about community currency. Majority (68%) of the respondents learnt of Gatina Pesa from their neighbors and 80% of the respondents recommended Gatina Pesa to their neighbors. This agrees with the study by Bandera and Rasul (2006) in the North of Mozambique who found a relationship between decision and technology adoption. The study showed how farmers' decisions to adopt an innovation were influenced by their immediate families and their own usage of the same technology and their friendship networks.

#### Factors that Influence the Adoption of Community Currencies

The second objective of the study sought to investigate the factors that influence the adoption of community currencies in Gatina village. This study established that Gatina Pesa was easy to use as indicated by 74% of the respondents. The study also established that majority (60%) of the respondents found the explanation on how to use the community currency easy to understand. The findings also established that the respondents (74%) found the time spent to explain the community currency concept was

adequate. However, the respondents found the face-to-face communication technical as indicated by 88% of the respondents. This could be as a result of the financial jargon in the communication. Mrayyan (2007) stated that jargon could be a hindrance to effective peer dyad communication. The experts in this case find it normal to use technical words to explain different aspects of the community currency.

### Challenges of Peer Communication in the Adoption of Community Currencies

The third objective of this study sought to evaluate the challenges of peer communication in the adoption of community currencies in Gatina village. The study established from the in-depth interview that illiteracy, language barrier and high cost of USSD Unstructured Supplementary Service Data (USSD) maintenance are some of the challenges faced in the adoption of the Gatina Pesa community currency. Although majority of the respondents had secondary level education, peer communication could be a major challenge due to the financial language used. Madula (2018) holds that for effective communication within a peer dyad the language should be clear and concise irrespective of education level. Lunenburg (2010) observes that semantics are a hindrance to effective communication. The scholar adds that semantics can be termed as the meanings we attach to the words that we use. In the case of GP, the words used to convey the innovation and its effectiveness could indeed have been a barrier to effective communication. Adding to this the scholar also adds that technology could indeed be a barrier to effective communication more so when technical words are used to explain an innovation. Lunenburg (2010) argues that this is a semantic barrier only experts in the same field understand. In the case of GP and its diffusion as an innovation the researcher notes that

semantics including both jargon and technology could indeed have been a major barrier in adoption of the community currency.

### Conclusion

Nishibe (2013) observes that from the early 2000s the introduction and growth of various notations of community currencies have indeed been used in Japan. The scholar adds that some of these community currencies have diminished in use while others fizzled out. Adding his voice to the argument Yamazaki (2013) notes that 60% of the community currencies that had hitherto been introduced years before became obsolete due to failure in circulation and inconsistency in supply. However, Everett Rogers (1962) posits through Diffusion of Innovations (DOI) how a social system accepts a diffused innovation. Therefore, in the technology acceptance sphere, innovativeness could be easily translated to mean the level of inquisitiveness in developing new concepts or an innovative product or service (Zarpou et al. 2012).

This study agrees with multiple scholars in the observation that peer-to-peer communication is important in regard to its effects on the adoption of any innovation. The use of an innovation and its eventual adoption is high amongst those who are influenced by their neighbors, families, and friends. Peer to peer communication is useful in accelerating the speed or pace at which innovations are accepted in a given social system. In this study, the uptake of Gatina Pesa is seen to have grown due to peer-to-peer

communication. Majority of the respondents recommended Gatina Pesa to their neighbors.

Peer to peer communication is has been proven to be a formidable strategy in ensuring acceptance of any innovation. This is because peers who have already successfully implemented a grassroots innovation come with exemplified knowledge. More importantly, they share concerns and a language that facilitates learning and understanding. Communication between peers becomes more agile, questions more direct, and learning deeper (Lietaer, Arnspenger, Goerner, & Brunnhuber, 2012).

Seyfang (2001) holds that community currencies correct some of the issues that arise as a result being excluded socially in an ecosystem by providing different avenues of gainful work. The scholar adds that the community currencies have upended the norm by restructuring what has always been viewed as work to include services or products that individuals in a particular social system can offer each other. Community currencies can be exchanged for these goods or services by members who may not be having a full or part-time job

While community currencies offer a tool for more inclusive local economic development and governance, some challenges remain. Mainly, we know little about the most sustainable governance structures. Also, the very trait that ensures these currencies work for the benefit of the local community – their geographically limited use – also constrains their ability to diffuse and grow (Lietaer et al., 2012).

The more a community is closely knit, the stronger the currency project. This is because community currencies build on relations of trust within the community, as well as on the degree to which residents and participants already trade products and services, it

is important to consider and develop community relations through peer-to-peer communication.

In this study the adoption of innovations in this study has been highlighted by the peer-to-peer communication and its use effectively between dyads in an effort to ensure that adoption and efficacy ensue. Despite the fact that an innovator creates a service or product that is meant to bring about positive change this in itself does not ensure adoption of the innovation in question. An aggressive communication plan to ensure that the innovator and potential adopter through the various adopter categories is indeed needed, in this case peer to peer communication.

#### Recommendations

The study recommends that innovators should consider the use of peer-to-peer communication to ease adoption of new technologies. This is because peer to peer communication is useful in accelerating the rate of adoption of innovations and information exchange occurs during social interactions.

Vago (2004) argues that group membership is formed through dyads in a given social system. The communal interactions by and large forms an identity for the group socially. The scholar notes that for this social group to cohesively change then unity as a group and an identity of purpose is necessary and well rooted in social change communication. In the case of Gatina Pesa the community currency is a social change movement, hence the need to use social change communication to increase adoption.

Community currencies are rarely recognized or regulated by the government hence communities are limited in terms of the channels they use to create awareness about their currency. This study therefore recommends that the Government regulates

community currencies to help communities to transact. Community currencies are preferred because of their various benefits which include ensuring development of the local community and encouraging enterprise.

This study recommends that the community should participate in using the community currency to increase the economic growth of this particular social system. The economic growth and resilience can be achieved through virulent economic exchange.

The study also recommends uptake of community currency because it brings together the aspect of social identity and social unity of people living in the same locale by promoting the exchange economically of services and goods.

#### Recommendations for Further Research

1. Based on the findings from this research, it is recommended that additional studies could be conducted on peer-to-peer communication in other organizations that deal in community currencies in Kenya. Such studies will establish areas of improvement as this study did for GE. Most critically the study recommends studies on how financial literacy levels affects uptake or not which were found to be the weakest in the study.
2. The research indicates that there is a relationship between peer-to-peer communication and the uptake of GP. Community members who were able to overcome the language barrier between each other were able to have a dyad which had a direct correlation to uptake of GP. Future research might focus on the exact cause and effect relationship between peer-to-peer communication and language barrier.

3. The findings of this research indicates that respondents were more receptive to peer-to-peer communication from those they have a high affinity with. Future studies could interrogate further whether peer to peer communication is or is not critical in the uptake of an innovation.

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## APPENDICES

## Appendix A: Informed Consent Form

Research on *the role of peer-to-peer communication in the adoption of community currencies in Kenya: a case of gatina pesa in Gatina village Kawangware*

The researcher Lenny Rashid Ruvaga has explained to me the purpose of the study and that it's meant in partial fulfillment of requirements for his Master of Arts degree in Communication at Daystar University. I am voluntarily consenting to participate in this study by answering questions as directed. I do not expect any monetary benefits from the researcher. However, the researcher will be using the information he collects to make recommendations for research purposes *in the role of peer-to-peer communication in the adoption of community currencies in Kenya: a case of gatina pesa in Gatina village Kawangware*. My responses will be confidential and will not be revealed to any other party. My identity will not be used at any point during data collection and presentation of this work.

I confirm that I am above 18 years (tick the appropriate one) i) Agree  ii) Disagree

On my own freewill I give consent to participate in this study (tick your preferred response below)

i) Agree  ii) Decline

Date : \_\_\_\_\_

## Appendix B: Questionnaire

## Instructions

Where choices are provided, please tick in the appropriate box. Where choices are not provided, answer using your own words in the best way possible.

## SECTION A: DEMOGRAPHICS

1. What is your gender?      Male                       Female
2. Marital status                      Single                       Married
3. Age  18-25       26-33       34-41       42-49       Over 50
4. Level of education?  
 Primary     Secondary     College     University     Non formal education   
 Other (Please Specify) .....
5. How often do you use Gatina Pesa?  
 Daily       Once a week     Every other week       Once a month

## SECTION B: ROLE OF PEER COMMUNICATION IN THE UPTAKE OF GATINA PESA

Please indicate with a tick in the appropriate box () to indicate to what extent you agree with the following statements on the role of peer communication in the adoption and usage of GP.

Use the following scale: 5= Very True 4= True 3= Neutral 2= Not True 1= Not True at all

No.	Effectiveness of Communication Method	1	2	3	4	5
6	I got to learn of Gatina Pesa through my neighbor					
7	Face to face interaction helped me understand Gatina Pesa					
8	I recommended Gatina Pesa to neighbors					

9	The information I received was enough for me to make a decision						
---	---	--	--	--	--	--	--

SECTION C: EFFECTS OF PEER COMMUNICATION ON UPTAKE OF GATINA PESA.

Please indicate with a tick in the appropriate box () to indicate to what extent you agree to the following statements.

Use the following scale: 5= Very True 4= True 3= Neutral 2= Not True 1= Not True at all

No.	Factors affecting Uptake of Gatina Pesa	1	2	3	4	5
11	Was peer communication a factor in your adoption of GP?					
12	Did peer communication affect your perception of GP?					
13	Did peer communication lead to the increase in adoption of GP?					
14	Were you familiar with the person explaining GP?					

SECTION D: FACTORS THAT AFFECT THE UPTAKE AND USAGE OF GATINA PESA

Please indicate with a tick in the appropriate box () to indicate to what extent you agree to the following statements on the factors affecting the uptake and use of Gatina Pesa.

Use the following scale: 5= Very True 4= True 3= Neutral 2= Not True 1= Not True at all

No.	Factors affecting Uptake of Gatina Pesa	1	2	3	4	5

15	Is Gatina Pesa easy to use?						
16	Was the explanation used easy to understand						
17	Was the time spent explaining Gatina Pesa adequate?						
18	Was the face-to-face communication technical?						

THANK YOU

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### Appendix C: In-depth Interview Schedule Guide

My name is Lenny Rashid Ruvaga. I am a final year student at Daystar University, pursuing a Master of Arts degree in Communication. As part of my program of study, I am conducting research on *the role of peer-to-peer communication in the adoption of community currencies in Kenya: a case of gatina pesa in Gatina village Kawangware*. This in-depth interview is meant to help me get your views on stated topic. I urge you to be free to actively participate in the discussion. Your opinion time is very much appreciated. Thank you.

Date:

Venue:

Start time:

Finish time:

Instructions

Introduce the moderator, assistants and the reason for the meeting.

Fill demographic details as the key informant introduce themselves.

Offer refreshments after the discussions.

Questions:

1. What are some of the communication approaches employed in creating awareness about GP?
2. Has peer communication been applied in creating awareness about GP?
3. How do you think peer communication affected the adoption of GP?
4. Do you face communication challenges in enhancing adoption and use of GP?
5. How has the adoption of GP been?
4. Is there anything you'd like to add?

THANK YOU

## Appendix D: Letter of Consent



PO Box 1659-80108 Kilifi  
+254-707-628-499  
grassrootseconomics.org

Daystar University  
P.O. BOX 444000-00100  
Nairobi, Kenya.

16/12/20

**RE: CONSENT TO CONDUCT RESEARCH**

Grassroots Economics is a non-profit foundation that seeks to empower marginalized communities to take charge of their own livelihoods and economic future. We focus on community development through economic empowerment and community currency programs. Beneficiaries of our programs include small businesses and people living in informal settlements as well as rural areas.

We give consent to Lenny Rashid Ruvaga a Masters of Development Communication student at Daystar University admission number 17-0543 to conduct his research and field study on our community currency and in particular the communication aspect related to his study.

Regards.

A handwritten signature in black ink that reads "Will Ruddick".

Will Ruddick  
Director



DA

## Appendix E: Ethical Clearance

**VERDICT: APPROVAL WITH COMMENTS**

Daystar University Ethics Review Board

Our Ref: **DU-ERB/17/05/2021/000518**Date: 17<sup>th</sup> May 2021

To: Lenny Rashid Ruvaga

Dear Lenny,

**RE: THE ROLE OF PEER-TO-PEER COMMUNICATION IN THE ADOPTION OF COMMUNITY CURRENCIES IN KENYA: A CASE OF GATINA PESA IN GATINA VILLAGE, KAWANGWARE**

Reference is made to your ERB application reference no. 010421-01 dated 1<sup>st</sup> April 2021 in which you requested for ethical approval of your proposal by Daystar University Ethics Review Board.

We are pleased to inform you that ethical review has been done and the **verdict is to revise to the satisfaction of your Supervisors before proceeding to the next stage**. As guidance, ensure that the attached comments are addressed. Please be advised that it is an offence to proceed to collect data without addressing the concerns of Ethics Review board. Your application approval number is **DU-ERB-000518**. The approval period for the research is between *17<sup>th</sup> May 2021 to 16<sup>th</sup> May 2022* after which the ethical approval lapses. Should you wish to continue with the research after the lapse you will be required to apply for an extension from DU-ERB at half the review charges.

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 Daystar University Ethics Review Board.
- 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 Daystar University Ethics Review Board 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 Daystar University Ethics Review Board 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 a signed one page executive summary report and a closure report within 90 days upon completion of the study to Daystar University Ethics Review Board via email [duerb@daystar.ac.ke].

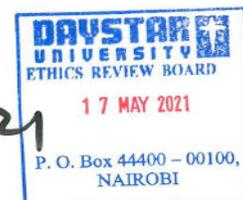
Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://oris.nacosti.go.ke> and other clearances needed.

Yours sincerely,

A handwritten signature in black ink, appearing to be "A. L. Lando", written over a horizontal line.

Sr. Prof. A. L. Lando PhD  
 Chair, Daystar University Ethics Review Board

17<sup>th</sup> May 2021



Encl. Review Report

Appendix F: Research Permit

  
**REPUBLIC OF KENYA**

  
**NATIONAL COMMISSION FOR  
 SCIENCE, TECHNOLOGY & INNOVATION**

Ref No: **231354** Date of Issue: **09/June/2021**

**RESEARCH LICENSE**



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