

**INFLUENCE OF FINANCIAL TECHNOLOGY ON THE PERFORMANCE OF  
MICRO AND SMALL ENTERPRISES: A CASE OF WAKULIMA MARKET  
NAIROBI, KENYA.**

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Award of the Degree of Master of Arts in Project Planning and Management,  
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**DECLARATION**

I declare that this research project report is my original work and has not been submitted for an award of a degree in any other university or Institution of Higher Learning for examination/academic purposes.

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## **DEDICATION**

I dedicate this research work to my parents; my father James Mwangi and mother Sarah Njeri and my siblings; Esther Nduta, Grace Wairimu, Peninah Muthoni, Irene Waithera, Nicholas Ng'ang'a, and Martin Njihia.

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## LIST OF ABBREVIATIONS AND ACRONYMS

<b>B2C</b>	Business to Consumer
<b>C2B</b>	Consumer to Business
<b>CA</b>	Communications Authority
<b>CBK</b>	Central Bank of Kenya
<b>DFT</b>	Diffusion of Financial Technology
<b>DPF</b>	Deposit Protection Fund
<b>FinTech</b>	Financial Technology
<b>FMCG</b>	Fast Moving Consumer Goods
<b>GoK</b>	Government of Kenya
<b>ICT</b>	Information and Communication Technology
<b>KBA</b>	Kenya Bankers Association
<b>KNBS</b>	Kenya National Bureau of Statistics
<b>MMT</b>	Mobile Money Transfer
<b>MSE</b>	Micro and Small Enterprises
<b>OECD</b>	Organization for Economic Co-operation and Development
<b>P2P</b>	Person to Person
<b>RBT</b>	Resource Based Theory
<b>TAM</b>	Technology Acceptance Model
<b>UNCTAD</b>	United Nation’s Committee on Trade and Development

## ABSTRACT

Financial Technology is the innovative power of technology to carry out financial services. Commercial banks, microfinance institutions, non-banking financial institutions, investors and other companies are nowadays competing in developing applications that harness the benefits that come with the contemporary technology. Financial technology helps organizations with a strategic plan to overcome the challenges they come across in achievement of a sustainable competitive advantage. In seeking to establish the influence of financial technology on performance of MSEs at Wakulima market, the study assessed the influence of telebanking, market-place lending, e-commerce financing, and invoice financing on performance of MSEs at Wakulima Market. Descriptive research design was employed on a target population of 650 MSEs at Wakulima Market whereby the study used simple random sampling to obtain 248 entities that were subjected to questionnaire. Data was collected through semi structured questionnaires. Reliability and validity of the questionnaires was tested through a pilot study that was conducted before the actual data collection exercise commenced. Data was obtained and analyzed using SPSS software version 21. From the findings obtained it's clear that 66% of the respondents were male while 34% of the respondents were female. This implied that Wakulima market is dominated by males who carry out business there. Majority of the respondents 69.5% were aged 20-35, 17.5% of the respondents were aged between while 13% of the respondents aged between 18-20. The clearly indicated that majority of working population in Wakulima Market are youths. Majority of the respondent 48.5% were entrepreneurs, 36% were partners while 15.5% were employees. This indicated that the study targets the right population for the study. Majority of the respondents 79.5% had secondary education, 14.5% had college/technical education, while those respondents who had university education and primary education were 3% respectively. From the findings it's clear that majority of the respondents were literate and well applied their skill to learn their businesses. Majority of the respondents 75% had over 15 employees, 15% had between 6-10 employees, and 5.5% had 11-15 employees while 4.5% had 2-5 employees. This clearly indicated that the enterprises fell under MSEs category which was the focus of the study. Based on the model employed it confirmed that the independent variables in the study were positively related to the performance of MSEs and were statistically significant at 5% significance level. Moreover, all the p-values had values less than 0.05, thus all the null hypotheses in the study were rejected and the alternative hypotheses accepted to be true. Further, it was established that holding Telebanking, Market place lending, Merchant & e-commerce financing, Invoice financing and Regulatory framework to constant, Performance of MSEs would be at 4.012. An increase in unit in Telebanking would result to an increase in performance of MSEs by 0.338, an increase in unit in Market place lending would lead to increase in Performance of MSEs by 0.597, unit increase in Merchant & e-commerce would result to an increase in performance of MSEs by 0.292, an increase in unit in invoice financing would result to an increase in performance of MSEs by 0.545. Lastly, an increase in unit in regulatory framework would result to an increase in performance of MSEs by 0.645. This confirms that there was a positive relationship between financial technology and performance of the MSEs. The study recommends that more studies should be conducted on financial technology and how they influence performance of MSEs in the economy. There much dynamism in the market which is changing every now and then thus creating more threats and opportunities. This study focused on MSEs at Wakulima market only, this may not fully represent all the MSEs in Kenya. Further studies can be carried out in other regions of the country in order to obtain conclusive results.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

The main drivers of social and economic development in Africa region are the Micro and Small Enterprises (MSEs). They generate employment and wealth and represent a large number of businesses in most of African countries. They are broadly considered to be vital to the competitiveness of a country. MSEs are applauded for their great role in promotion of grassroots economy and equity, which might then result in a decrease in prices, low customer base, or both. This in turn erodes existing profits and creates less incentive for people to start their own ventures. Development practitioners and Policymakers concede the leading role that ICT play in economic development and growth in the world over (UNCTAD, 2009). In developing economies, limited access by MSEs to information and communication technology is acknowledged as the main hindrance for growth of business. Information is thus viewed as aiding tool to the MSEs in strengthening their operations thus growing their businesses. Nevertheless, ICT impact on development greatly depends accessibility of the technology to firm (González, 2007).

Performance of MSEs can be evaluated in terms of growth, survival, success and competitiveness. This is because MSEs have no defined performance measurement method because of the complexity of their structures (UNCTAD, 2009). Performance measurement for MSEs can be categorized into: financial and non-financial indicators. Financial metrics consist measures such as costs, sales growth, return on investment, and profit margin; non-financial metrics include areas such as customers (For example, retention and satisfaction), internal processes (such as delivery, lead time, productivity and process time), and learning of the employees and growth (For example, knowledge and development). Use of both financial metrics and non-financial measurements leads to provision of better view for improvement of performance. In addition, evaluating both non-financial and financial measures give wholesome view of the potential effects of financial technology. According Sewang *et al.*, (2007), firms that use financial evaluations do not capture all the financial technology's benefits and thus have a less positive view of the effectiveness of the overall financial technology.

According to Frame and White (2012), FinTech is a new innovation that reduce risks, reduces costs and provide an improved service/ instrument/ product that well satisfies the demands of

the participants' within a financial system. FinTech can come up due to changes in technology, increased risk response or either due to new rules and regulations. According to Schumpeter (1934), FinTech is categorized into three groups according to where it occurs. These include: Process FinTech which refer to new processes in production that authorize provision of an existing or new financial services and products; Process FinTech which is normally aims at elevating efficiency in production; and Product FinTech which deals with new services or products that are created to meeting the needs of the market, thus making up a client-focused type of financial technology.

In addition MSEs face challenge in measuring the effectiveness of adopting financial technology in their operations because most of the measurements are based on large firms. Sewang *et al* (2007) established an effective measurement strategy for performance which can show the extent of success in implementation of ICT in a firm. In addition, it was established that effectiveness of ICT may not only be fully captured in the financial metrics, but also review the non-financial aspect. The balance between non-financial and financial measures can be used to establish an overall view of the effects of financial technology on MSEs performance. The Balanced Scorecard concept came from the realization that no one indicator that can capture the unit performance complexity in full (Amaratunga *et al*, 2001). In relation to the study, the balanced scorecard framework is more applicable than other financial approaches since financial technology effectiveness can also non-financial metrics such as customer satisfaction improvements; internal processes; and/or employee perspectives (Adams *et al*, 2006).

Micros to small enterprises are referred to those businesses which have less than 10 employees. To distinguish between micro and small sized businesses, micro enterprise is referred as a business that has less than 10 workers. These enterprises are referred to as MSEs and are linked to the proprietors who are also the owners. Carland *et al*. (1983), refer to MSE owner as an person who sets-up and manages an enterprise for achieving his goals. The enterprise is usually the source of their income and also take a most time and resources for the owner

Hieminga, Lande & Nijboer (2016) define Financial Technology as the innovative power of technology to carry out financial services. Commercial banks, non-banking financial institutions, microfinance institutions (MFIs), investors and other companies are nowadays competing in developing applications that harness the benefits that come with the contemporary technology. According to Kuratko *et al*. (2005). Financial technology

(hereinafter referred to as FinTech) provide enterprises with a strategic direction for them to bypass the challenges that they come across while struggling to clinch a sustainable competitive advantage. (Drucker (1985) defines FinTech as a way of installing new, increased utility or improved capabilities. Schumpeter (1934) different described the types of financial technology: new supply sources, new production methods, new products, new ways of business organization, new markets exploitation.

According to an OECD (2000), ICT contributes greatly in MSEs industry by introduction of new product and adaptation to the existing products on the basis of customers' needs. In addition, MSEs are very crucial in the growth of economy thus government have aimed at providing a sustainable business environment and policies in place to promote them. Currently the Kenyan government is thriving on promoting MSEs by providing market platforms and reducing the startup costs. MSEs have small structures and therefore apply innovative strategies more easily since decision making is easier compared to larger firms. Large firms have advantage of having financial muscle to invest in research and development compared to micro and small enterprises. Thus MSEs must establish the right balance to adopt new technology to ensure more productivity. In addition, clear policies should be enhanced to ensure that proper adoption of financial technology is emphasized and its impact achieved.

The best example of product FinTech is the widespread mobile banking platforms. For instance, in Kenya, payment via Mobile phone consist distribution of cashless whereby FMCG (fast moving consumer goods) firms use M-pesa to purchase goods payment method in their distribution network. Business to consumer (B2C) payments, consumer to business (C2B) cash payments, Person to person (P2P) cash transfers, deposits and withdrawals at M-pesa registered agents, and international money transfers are a common business aspects (Ndungú, 2015).

The contribution of MSEs is greater than twice large the manufacturing sector, at 7% of Kenyan GDP (GoK, 2009). MSEs created around 75% new jobs between 2003 and 2005. It is further, recognized that the MSEs sector constitute of a good portion of private sector in Kenya (Migiro & Wallis, 2006). They are engaged in, goods and services production, overall investment in risk taking, in perceiving and utilization of new opportunities in the economy and in development of economy (OECD, 2006). MSEs have significantly contributed to the extension of price-based signals into areas such as urban delivery of service; water distribution, urban transport, garbage collection, and manufacture of commercial and domestic appliances (GoK, 2012).

Performance refers to how well an enterprise can use assets it has in the business and generate income. Financial performance aims at evaluating the quantitative and qualitative aspect of a business. Financial performance is important as it evaluates the firm in terms of profit attained, costs incurred and savings made (Whites, 2008). Financial performance will be measured using business ratios which include profit ratios, turnover ratios among others. This will help to establish the effects of adopting financial technology on the financial performance of MSEs in Nairobi.

## **1.2 Statement of the Problem**

While entrepreneurship and industrial development is the backbone of significant growth of economy, its success can be facilitated by innovation in technology. Technological innovation is referred to as all technological, scientific, organizational, commercial and financial steps that result to implementation of technologically improved services and products (OECD, 2005). According to Schumpeter's (1934), creative destruction theory that indicate that non-innovative products and firms are replaced with those that innovative; Kenya, as well as many other African and regional economies have noted technological innovation as a sure way of ensuring high enterprise performance and growth of economy (OECD, 2013).

Despite holding great differences of technological changes treatment in economic theory, Neoclassical and the Schumpeterian approaches assume that technologically innovative organizations are rewarded by market selection; meaning that less innovative organizations should be outperformed by more innovative firms, with higher profits, growth and prices of their stock. This is due to assumption that technological innovation creates new markets and further increase market shares of MSEs. Likewise, process innovations better MSEs productivity by cutting production costs. Despite such great assumptions, empirical evidence as to whether MSEs that adopt FinTech perform better than those that do not remains inconclusive. While the positive effect of FinTech on performance, i.e. stock prices and market value, have been found to be more or less robust (Hall *et al.*, 2005), empirical evidence on the influence of FinTech on MSEs growth is more mixed and doesn't hold the assumption that differences in technology among organizations result in growth differentials.

MSEs owners have embraced innovations in digital platform in the recent past with an aim of return on investment maximization. In Kenya, payment services through mobile phone which include distribution of cashless where companies that trade in FMCG are of recent using M-pesa in their distribution processes. P2P (Person to person) transfers of money, withdrawals

and deposits at M-pesa agents, B2C (business to consumer) payments C2B (consumer to business) payments, and across the border transfer of money are a common aspect of many businesses (Ndungú, 2015). Dosi (2005) posits that the impact of production efficiency and technological innovation on growth performances seems to be somehow controversial, given that contemporary markets don't seem to be effective selectors in punishments and rewards for differential efficiencies. Dosi (2005) therefore asserts that market failure could be the only reason why technological advanced firms do not grow as expected. However, innovations effect that they have had on performance of these enterprises is not clear. Given that the different markets react differently to technological innovations employed by firms, the study therefore assessed the influence of FinTech innovation on performance of MSEs (measured by profitability and growth of a firm) among MSEs at the Wakulima Market in Nairobi County.

### **1.3 Purpose of the Study**

The purpose of the study was to establish the influence of financial technology on the performance of Wakulima Market in Nairobi County.

### **1.4 Objectives of the Study**

The objectives of this study were:

- i) To establish the influence of tele-banking on performance of MSEs at Wakulima Market Nairobi County.
- ii) To assess the influence of market place lending on performance of MSEs at Wakulima Market Nairobi County.
- iii) To determine how merchant and e-commerce financing influences performance of MSEs at Wakulima Market.
- iv) To establish how invoice financing influence the performance of Wakulima market MSEs.

### **1.5 Research Hypotheses**

The study tested the following hypotheses:

- i) **H<sub>0</sub>**: Telebanking does not significantly influence performance of MSEs at Wakulima Market in Nairobi County.



**H<sub>1</sub>**: Telebanking significantly influence performance of MSEs at Wakulima Market in Nairobi County.

ii) **H<sub>0</sub>**: Market place lending does not significantly influence performance of MSEs at Wakulima Market in Nairobi County.

**H<sub>1</sub>**: Market place lending significantly influence performance of MSEs at Wakulima Market in Nairobi County.

iii) **H<sub>03</sub>**: Merchant and e-commerce financing does not significantly influence performance of MSEs at Wakulima Market in Nairobi County.

**H<sub>1</sub>**: Merchant and e-commerce financing significantly influence performance of MSEs at Wakulima Market in Nairobi County.

iv) **H<sub>0</sub>**: Invoice financing does not significantly influence performance of MSEs at Wakulima Market in Nairobi County.

**H<sub>1</sub>**: Invoice financing significantly influence performance of MSEs at Wakulima Market in Nairobi County.

## **1.6 Significance of the Study**

The study investigated the influence of FinTech on performance of MSEs at Wakulima Market in Nairobi County. The study hoped to assist entrepreneurs address challenges affecting majority of MSEs mushrooming all over in the country. This will help them know how well to embrace technology as a tool to combat high attrition rates of MSEs in Kenya. Further, it is also hoped that the study shall contribute to the existing literature on use of technology to empower up and coming entrepreneurs as a way of pulling them from the hands of poverty. The recommendations made will contribute to enhanced nursery and management of micro enterprises among the poor majority especially in slum areas. It is hoped that this study will not only help in curbing unemployment among the youth but also cultivate economic empowerment of the greater population who operate as hawkers at the Wakulima Market.

### **1.7 Limitations of the study**

Partial or non-disclosure of critical financial information. This was attributed to high competition nature among entities in the market. However, the researcher reassured respondents of his/her commitment to confidentiality of information given.

Focusing on performance of MSEs at Wakulima market in Nairobi, the study faced multiple hurdles in trying to unravel the relationship between performance of MSEs and financial technology due to the inadequacy of previous studies on the same.

### **1.8 Delimitations of the Study**

The study was conducted at Wakulima Market within Kamukunji Constituency, Nairobi County. The study was restricted to MSEs and small scale traders within the market who employed mobile-money transfer and payment services in the course of the business. Further, there were other MSEs within the market that are operated without the use of mobile money financial technology thus were not investigated in this study. As such, the findings obtained were limited to the objectives highlighted above.

### **1.9 Basic Assumptions of the Study**

The study was founded on two key assumptions in order to realize the objectives highlighted earlier in the section. The first assumption was that majority of entrepreneurs at Wakulima market own mobile phones and were using mobile money payment and transaction services in their day to day operations. The second assumption was that entrepreneurs at the market were good record/book keepers and were able to produce sufficient transaction information and records as requested by the enumerators.

### **1.10 Definition of Significant Terms Used in the Study**

This section contains operational definitions of terms whose agenda is to show the specific way of applying a concept or term. In another perspective, they may be applied differently. For this study, the following terms were used.

**Micro and small enterprises (MSEs):** Refers to a business venture or entity with employees not exceeding 20, with capital investment of not more than kshs 30 million. Administrative and operational management lies in the hands of one to three

**Financial Technology (FinTech):** Refers to (hereinafter referred to as FinTech) the innovative power of technology to carry out financial services.

**Tele-banking:** Tele-banking refers to a service provided by a financial institution or bank, that facilitates clients to perform on their mobile phones a range of financial transactions which don't involve documents or cash (For example, use of cheques), without visiting an ATM or bank branch. These include electronic bill payment, funds transfer, and balance checking.

**Marketplace Lending:** Marketplace lending refers to the practice of lending money to borrowers without going through a traditional financial intermediary such as a bank.

**Invoice Financing:** This is common form finance in business where money are paid against unpaid invoices before the customer pays It includes banks, private lenders and alternative financial institutions, normally utilized by businesses that trade both globally and domestically. However, two types of invoice financing exist: factoring and discounting.

**Merchant and e-commerce financing:** Refers to a variety of small business financing options that involve short payment terms (less than 24 months) and small payments made regular (normally paid per day) unlike large monthly payments and longer terms of payment linked to traditional loaning by banks (Murray, 2012).

**Technology adoption:** Refers to the modification of current technology to satisfy the needs of specific consumers or producers, become compatible with local tastes and preferences and materials available locally (Van Dijk, 2001). Since most technology occur elsewhere (mainly through research and development) and later flows away from the center of innovation, firms that receive technology developed elsewhere require technological capabilities for them to adopt and make effective use of the transferred technology.

### **1.11 Organization of the Study**

The study is organized into five Chapters where: Chapter one comprise of introduction, statement of the problem, study objectives and research hypothesis that will guide the study. It

further provides the limitations and delimitations of the study and defines terms used in the research. Chapter two explores the literature review in the context of financial technology in performance of MSEs. Key theories guiding the study were discussed, a conceptual framework developed and a summary of the reviewed literature identifying gaps in knowledge. Chapter Three provides research methodology applied in attaining the results of the study. The chapter focused on research design of the study, target population, sample size and procedure for sampling, data collection method, reliability and validity of research instruments, data analysis method, operationalization of variables and ethical issues that were addressed during research. Chapter Four focused on data presentation, interpretations and discussions. Finally Chapter Five focused on findings, conclusions and recommendations for further research.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This Chapter outlines a highlight on the several theories on financial technology adoption and empirical studies reviewed in this study. Further, the chapter gives an overview of various empirical studies undertaken and their respective findings.

#### **2.2 Performance of MSEs**

The importance and role of small and micro enterprise sector to countries' economies has been well documented globally. According to van Vuuren & Groenewald (2007), the sector is an efficient producer that constitute an important dynamic force in the economy as it contribute significantly to a desirable expansion of output over time, stimulating activities in the economy, job creation, poverty elevation and improvement of standards of living world-wide and in Africa (Groenewald & van Vuuren, 2007). According to Traill (1997), a firm's market financial technology plays an important role in its competitiveness in industry as it guarantees that any firm keeps up with the changing customer needs in the market. Therefore, MSEs financial technology activities support improvement of a firms' profitability and competitiveness. Firms oriented to market have a greater capacity to create something new and succeed in response to environmental needs that result to superior performance and competitive advantage (Adu & Appiah, 2012).

Sonja and Rozic (2015) carried out a research on effects of financial technology activities in MSEs in Croatia Republic. The study aimed at establishing the relationship between the determinants factors of financial technology and effects of adopting financial technology. The determinants factors of MSEs included proportion of highly educated, ownership structure, employees, market orientations and strategic changes implementation. The effects of adopting financial technology include increased product quality improvement, market share, reduction of material cost per unit, improved ecological, and safety and health impact and compliance with legal regulations. The research was conducted on 498 MSEs both in manufacturing and service enterprises. The research methodology was carried using mail survey between 2001 and 2003. The data was analyzed using multiple linear regression models with dependent variables representing innovative effects and independent variables relating to determinants factors of financial technology. The findings were careful implementation of the determinants led to improved innovative effects.

Sewang *et al.*, (2011) conducted a research on effects of financial technology on MSEs by use of balanced approach. The research was conducted in Thai and Australia MSEs. The balanced approach used both non-financial and financial metrics in capturing the full potential benefits that exist in implementation of financial technology. The research was conducted on 144 MSEs in both countries. The effects of financial technology were determined using the following metrics; sales revenue customer, satisfaction and growth, return on investment, service/product profit margin and quality. The study established MSEs that utilized a balanced approach were observed to likely perceive benefits financial technology implementation in comparison to the ones that adopted financial measures only.

The dynamics of using financial technology in MSEs tend to be strongest in the large and more developed sectors, a phenomenon that one would easily associate with developed economies in Asia, Europe and America, but not in Africa. MSEs in South Africa for instance have displayed efficient production records due to the uptake of FinTech and automation of most production processes, making it possible for them to compete with the likes of Chinese and Indian MSEs (Shah, 2009).

In their study on growth and development of MSEs in Ghana, Kaufmann, Kraay & Mastruzzi (2007) noted that, industries that are financially dependent grow at a high rate in markets that are financially developed. Kaufmann *et al.* (2007) also posit that firms in industries where MSEs have dominated tend to grow at a high rate. According to Beck *et al.* (2008), industries in where entry is crucial experience less growth in countries where there are entry restriction, wide restrictions and ease of doing business being a huge barrier to growth of MSEs in most African countries.

Gitau (2011) in the study on research on relationship between financial technology and financial performance of commercial banks in Kenya. The study was conducted over a period of 5 years from January 2006 to December 2010 and adopted a quasi-experimental research design. The study noted that commercial banks that adopted financial technology reported improved financial results. In addition, Nyathira (2012) carried out a study to assess the effects of financial technology on financial performance of commercial banks over a period of four years and confirmed that financial technology contribute to profitability in the banking sector.

### **2.3 Tele-banking and performance of MSEs**

Tele-banking is explained as an enjoyment of a customer banking services through their telephones, without having to physically appear in the banking halls (Abbad, 2011). E-banking

provides a variety of financial services, namely, fund transfer, ATM services, online payments and utility bill payment (Kolodinsky et. al., 2004). According to Shih & Fang (2016), mobile phone banking or tele-banking uses mobile phone platform and the internet to perform various financial banking activities in virtual space. It has also been described in literature as an alternative and more convenient banking channel that embraces the use of FinTech (Abbad, 2011). Tele-banking offers a technology-based self-service option that allows individuals to transact without necessarily going to the banking hall (Dabholkar *et al*, 2013). The birth of mobile banking can be traced back to the early 2000s, when M-pesa was unveiled in 2007 by Vodafone, Safaricom's parent company (Communication Authority, 2013). It referred as a cheap, user friendly for many Kenyans who cannot access a accounts in bank or afford the high charges. Transfer of money service grew at high rate, acquiring 20 million clients by December 2013 in Kenya. Similarly, Airtel Kenya came into the local mobile market the under the Zap brand in the same year. Similar to the M-Pesa modus operandi, Airtel money offers e-shopping payments, payment of bills, sending and receipt of money, as well as making cashless transaction payments. As such, the company has formed partnership with a range of companies in order help users have better ways in accessing of services (Communication Authority, 2013).

The use of MMT services has grown over time. According to Communication Authority (2013), growth in the number of users is a clear indicator that MMT service has been a key transaction and payments method, solely due to ease of applications use at a low cost value, and propositions convenience. However, Kenya bankers association (KBA) has protested this growth, which argues that low-end bank clients are protected by the deposit protection fund (DPF) against collapse. They are refunded up to 100,000 shillings of the deposits in incase they collapse; where this may not be possible mobile transfer system (KBA, 2015). Furthermore, use of tele-banking increases transparency as financial inclusion reduces the need for cash and more payments are made through digital means that can be bettered monitored.

#### **2.4 Market-place lending and performance of MSEs**

Mobile phones are crucial for development in developing countries since they are in a position to bypass the institutional barriers and red tapes that prevent the poor in Africa from accessing credit facilities to fund their business ventures (OECD, 2013). Moreover, rapid development in technology and usage with ease in addition to reducing prices of handsets, thus presents the

mobile gadgets as an adaptable and appropriate tool to connect the digital divide. Smith & McCoy (2007) note that most business people in developing countries have embraced mobile phones as game changer.

When Mshwari was launched in 2010, the initial mandate was service creation, which have helped MSEs traders to borrow money with ease repay and receive loans on Safaricom's network (Makee *et al*, 2013). This enables micro-financiers in offering more competitive rates on loan to their clients. Of recent, Mshwari been the most rated mobile money lending app in Kenya, enjoying the Safaricom and Mpesa platform that is so popular in Kenya and the world over. M-shwari, is therefore a new product that is innovative and aims at bridging the gap among the many Kenyans who are not in a position to access other financial services can borrow, and save money by us of mobile gadgets. The technology targeting at the bottom of the pyramid; individuals who don't bank or have accounts in the bank therefore struggle to get access to traditional banking (Wachira, 2015). FMCG organizations are being advocated to use M-pesa buy-goods-payment mode in process of distribution of their goods. FMCG companies have a national coverage and they have been paid by their clients for delivered goods. This has greatly improved small entrepreneurs' access to credit facilities, enabling MSEs like ones in Wakulima market to thrive despite lack of sufficient capital.

## **2.5 Invoice financing and performance of MSEs**

The main challenge that face startup founders is finding finance for their businesses. To most of them, its challenge that is ongoing in their fight for survival. Unluckily, many startups never secure funding. The founders and employees instead, have to bootstrap the businesses and utilize their resources well (TCI Capital, 2017). Start-up companies need working capital to fund their business to meet daily operating costs and payroll. For newer companies, this is a challenge when little to no cash is left after the initial start-up costs. As Aker & Mbiti (2010) observed, if an MSE's primary financial issue is slow payment from clients, the solution is normally use of invoice financing/factoring. Further, Invoice financing allows one to finance receivables that are slow-paying. One is able to get immediate funds from the factoring company instead of waiting 30 to 90 days to get paid. The MSE startup gets money they need to pay their expenses, as the financier keep the invoice until its paid. The finance transactions settle once the customer honors their invoices in full (Hieminga *et al.*, 2016).

Startup starters often seek venture capital in order to fund their great idea. However, most of the investors who have institutional money them find out companies with high potential of



growth and considerable markets. In order for startups to succeed, it's crucial for them to find an alternative funding source. One of the options that the media infrequently highlights about is invoice factoring. This option for startups is much cheaper and faster than venture capital (Harper, 2016). It helps firms to advance cash on their invoices that are completed within one day. The whole process, from finding an invoice factoring firm to coming up with a credit line takes less time and work than venture capital securing. Entrepreneurs normally retain complete control and ownership of their businesses when they use invoice financing.

According to Mwaura (2009), obtaining cash through invoice factoring is easier as opposed to capital venture financing. The process is usually very fast other than using venture capital and frees up the starter's time to conduct their business. Startups are not required to prove how they will repay the funds (since it isn't a loan). Invoice factoring involves giving out money that has already been earned, where the factor gathers the cash without a notification to the startup's client. Therefore, the startup has nothing to do but wait until the job is done. Organizations also never have the pressure to hit immense projections in growth unlike in venture capital (Greene, 2014). They are to use the revenue that they earned (invoices completed) and monetize them to accelerate their growth. Another merit of using invoice factoring is that as a business expands, the amount of funds that it obtains through factoring also increases. A startup's credit line increases with an increase in its sales.

## **2.6 Merchant & e-commerce financing and performance of MSEs**

Merchant financing is a description of a various micro business financing method characterized by short-term payments (normally under 1 year) and small payments made regularly (typically paid on a daily business day) unlike the large payments on a monthly basis and longer terms of payment associated with bank loans (Murray, 2012). Merchant money advance may be described as future credit purchases, short-term business loans or card sales receivables. Merchant money advance firms provide cash to organizations in exchange for a small percentage of daily credit card income of the businesses', from the processor who clears, and settles credit card payments. A firm's submission is got from clients' credit and debit-card purchases daily until they meet the obligation. Most providers partner with payment processors thereafter taking a variable or fixed amount of a merchant's future credit card sales. The merchant cash advances aren't loans. They are a portion of future sales in debit/or card sales credit (Loten, 2011). Therefore, merchant fund advance firms indicate that they are not held by state law that prevents money lenders from charging high interest rates.

## **2.7 Theoretical Framework**

The study reviews theories related to financial technology and performance of MSEs, and explores both convergent and divergent views of existing theoretical arguments.

### **2.7.1 Diffusion of Financial Technology Theory**

(Rogers, 2003) primarily focused on how new adopters see financial technology based on relative disadvantage/advantage; thus, Diffusion of Financial Technology Theory (DFT) approach helps in formation of a framework: compatibility, complexity, innovativeness and relative advantage. Moreover, organizations that mostly use a certain technology are mostly the prime candidates for adopting the next generation of technology early. The diffusion of financial technology approach in this research study is crucial in helping to understand the dynamics involved in relation to use and adoption of financial technology in MSEs. There are discussions that looking into adoption by individuals and also by organizations. The above types of adoptions both play a great role when assessing the adoption and diffusion of financial technology by MSEs. Ultimately in MSEs most of the decisions are made by the owners. Organizational decision adoption of technology is intertwined with personal attitudes and perceptions of the owner towards the proposed technology. Diffusion in MSEs is greatly by way of firms networks.

### **2.7.2 Resource-Based Theory**

In this Theory, Barney (2011) indicate that the resource-based theory approach has over the developed to one of the most well-known and powerful theories from a nascent, upstart perspective for explaining, describing, and predicting relationships in an organization. Resource-based theory (RBT) of the organizations as one of the approaches in research has been greatly used by many researchers (Melville *et al*, 2004). In its original form, resource based view emphasizes on the internal resources of an organization as a source of competitive advantage and performance, unlike the external environment. However, findings from our empirical study reveal that these capabilities (firm networks, financial technology, expertise, supply chain etc.) may be generated from the extramural perspective of the organization entailed by the technology development. Therefore, according to this explanation, several factors can be seen as creating bundles of firm assets most crucial to the organization and to be

included in the framework: capabilities, resources, and top managerial support, financial technology cost, supply chain, and human resource and networks

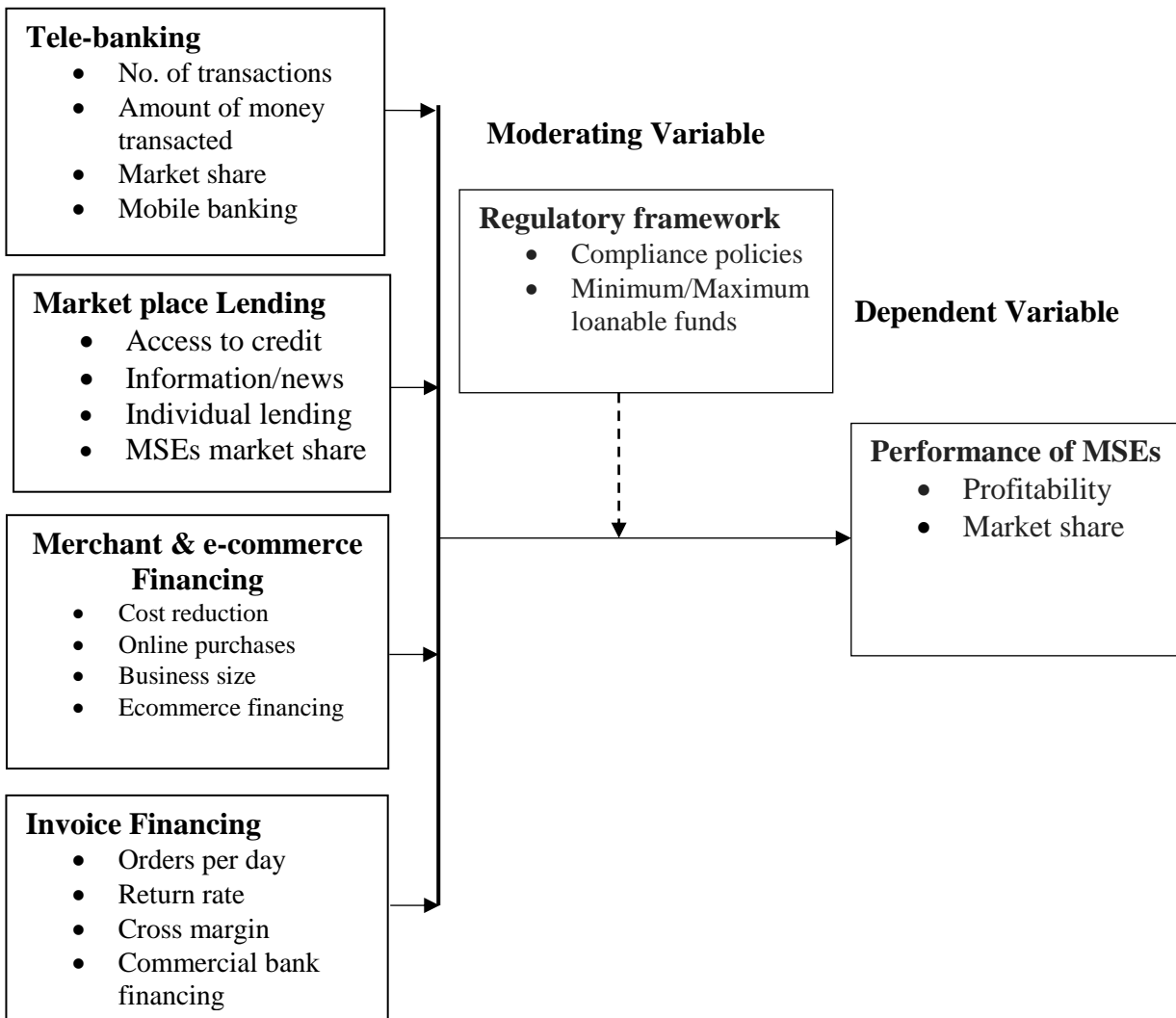
### **2.7.3 Technology Acceptance Model**

The greatly used of IT model of use and adoption is the TAM (technology acceptance model) which has been taken to be highly predictive of information technology use and adoption (Venkatesh *et al.*, 2000). TAM was developed in order to explain usage of computer through two cognitions: attitude and perceived usefulness. Venkatesh *et al.* (2003) states the importance of TAM integration with other information technology approaches that accommodate decision makers' social and idiosyncratic behaviors. Though these approaches contributed to ICT/MSE literature and influenced the formation of our framework, they also harbor some shortcomings. TAM is criticism is on lack of accounting for the personal and influence control factors on characters that include lack of consideration on other factors like; suppliers, external influences from the environmental attributes, competitors, and customers. On the other hand, DFT lacks considering into account an organizations' social support or resources in adoption of new ICT. Regarding RBT approach, it mainly focuses on the internal aspects of the firm; however, MSEs make use of their external context; their supply chain and reliance on external expertise, factors not currently addressed by the RBT.

### **2.8 Conceptual Framework**

The conceptual framework of this study is based on four independent variables, one moderating variable, one intervening variable, and one dependent variable as shown in Figure 1 below From the study, project performance of MSEs which is the dependent variable is determined by tele-banking, market place lending, merchant & e-commerce financing, and Invoice financing; under the moderating effect of regulatory framework. The structure further includes the indicators for each of the independent variables, the dependent variable, as well as the moderating variable.

### Independent Variables



**Figure 1 Conceptual Framework of influence of financial technology on the performance of MSEs at Wakulima market Nairobi.**

## 2.9 Research Gap of influence of financial technology on the performance of MSEs at Wakulima market Nairobi.

Research gap for the study has been summarized in table 2.1

**Table 2.1 Research Gap**

Variable	Indicators	Author (Year)	Title of Study	Findings	Knowledge Gaps
<b>Telebanking</b>	<ul style="list-style-type: none"> <li>No. of transactions</li> <li>Amount of money transacted</li> <li>Market share</li> <li>Banking time</li> <li>Mobile banking</li> <li>Bank accounts</li> </ul>	Gitau (2011)	Relationship between financial technology and financial performance of commercial banks in Kenya.	The study found that commercial banks that adopted financial technology reported improved financial results	The author identified that of financial technology improved the performance of banks. This study sought to identify the influence of telebanking as a financial technology on performance of MSEs, which was not highlighted in the study
<b>Market place lending</b>	<ul style="list-style-type: none"> <li>Access to credit</li> <li>Information/news</li> <li>Individual lending</li> <li>favourable lending rates</li> <li>MSEs market share</li> </ul>	Nyathira, (2012)	Effects of financial performance of commercial banks	The study confirmed that financial technology contributed to profitability in the banking sector	The author identified financial technology as a profitability factor in the banking sector. This study sought to seek whether financial technology lead to increase the profitability of MSEs. Thus this study aims at filling this gap.
<b>Invoice financing</b>	<ul style="list-style-type: none"> <li>Orders per day</li> <li>Return rate</li> <li>Gross margin</li> <li>Commercial bank financing</li> <li>Invoice value</li> <li>Training on invoice</li> </ul>	Morobe , (2016)	The effect of Microfinance loan on the performance of small , medium enterprises in Nairobi County	The study found that Microfinance loans Influence financial performance of MSEs to great extent	The author acknowledged that microfinance loans influence the performance of SME. This study therefore sought to bring to light influence invoice financing on performance of MSEs since it was not discussed in the study. The study therefore study sought to fill that gap.

	financing				
<b>Merchant &amp; e-commerce</b>	<ul style="list-style-type: none"> <li>• A/c receivables</li> <li>• No. of sales</li> <li>• Cost reduction</li> <li>• Online purchases</li> <li>• Business size</li> <li>• Ecommerce financing</li> </ul>	Gathogo and Ragui (2016)	Effects of capital and technology on performance of MSEs in the manufacturing sector in Kenya. Case of selected firms in Thika Municipality	The study revealed that MSEs require technology in order to enhance their quality of goods and increase the performance of MSEs	From the study, it was clear that Financial technology increase the performance of MSEs. However did not reveal the extent to which it does, this study therefore sought to highlight influence of financial technology on performance of MSEs,

### 3.0 Summary of Literature Review

As previous research studies have based their evaluation on using financial information especially quantitative information at expense of qualitative information. According to the above empirical studies, it's evident that evaluations on effects of FinTech have been based on financial metrics. Most of the studies split the types of FinTech and evaluate each separately and its impact on MSE performance. The theories show that MSEs should adopt financial technology to improve growth, profitability, survival and competitive advantage. This study will conduct a balanced approach that incorporates both non-financial and financial measures. Researches that have focused on balanced approach of evaluating effects of financial technology on the performance of MSEs were mainly done in developed economies abroad. The study will therefore focus on impact of financial technology on the overall performance of MSEs at the Wakulima Market in Nairobi County. Performance will be evaluated using the balanced approach for MSEs at the Wakulima market. The balanced approach is based on establishment of cause-effect relationship between key strategic indicators through the two key perspectives: Company profitability and market share at the Wakulima market. The Balanced Approach has been suggested by Sewang *et al* (2011) as the best way to evaluate effects of financial technology on the performance of MSEs in developing economies like Kenya.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter outlines research methodology for the survey, as well as the research design employed, the target population, method of sampling to be used, data collection instrument and data analysis.

#### 3.2 Research Design

A descriptive research design for this study was used to establish the relationship between elements of FinTech and performance of MSEs at the Wakulima market in Nairobi County. Descriptive research studies are those studies that are concerned with description of a particular group, or of an individual characteristic. Mugenda and Mugenda (2003) noted that, the aim of research that is descriptive is to obtain adequate and relevant Information in short-time. A descriptive research design was adopted because the study was concerned with specific facts, predictions and characteristics concerning a group and an individual.

#### 3.3 Target population

Target population is defined as a collection of respondents who meet a prescribed set of criteria (Straits & Singleton, 2010). According to Ngechu (2004). It is a set of individuals of a hypothetical or real set persons, subjects or events to which a researcher wishes make a generalization of his/her results The target population for the study was 650 entrepreneurs and informal traders at the Wakulima Market, as well as Nairobi County government ([www.opendata.go.ke](http://www.opendata.go.ke)).

**Table 3.1 Target population of Wakulima Market.**

<b>Stratum</b>	<b>Target Population</b>
Entrepreneurs and informal traders	650
<b>Total</b>	<b>650</b>

#### 3.4 Sample Size

The choice of the sample size is influenced by the sample size formula used. It is on this premise that the study used the formula in equation 3.1 as derived by Yamane (1967) to calculate the sample size since it is simple, scientific and it can be applied to large population.

$$n = \frac{N}{1 + N(\epsilon^2)} \dots\dots\dots 3.1$$

Where n is the sample size, N was the target population and  $\epsilon$  denotes the precision error. Given a population of 650 entrepreneurs from the Wakulima Market ([www.opendata.go.ke](http://www.opendata.go.ke)), with a margin of error of 0.05, then the sample size was;

$$n = \frac{650}{[1 + 650(0.05^2)]} = 247.6 \cong 248. \dots\dots\dots 3.2$$

According to Noordzij *et al.* (2010), sample size calculations should be performed with caution because they are very sensitive to errors. Researchers are therefore encouraged to seek statistical advice from experts during the designing phase of the study. The study therefore used simple random sampling to identify 248 entrepreneurs to be interviewed in all at the market.

**Table 3.2 Sample size**

<b>Stratum</b>	<b>Target Population</b>	<b>Sample size</b>
Entrepreneurs and informal traders	650	248
<b>Total</b>	<b>650</b>	<b>248</b>

### 3.5 Research Instrument

Primary data from the field was collected by use of questionnaire. The questionnaires were rolled out to the target population with the help of a research assistant. The questionnaire as was designed allowed uniformity of the questions and ensured compatibility with responses. Close-ended and open-ended questions were used; (Creswell, 2005). Closed ended questions in the questionnaire solicited respondents’ views on the impact of financial technology on the performance of the market, as weighted on Likert scale. The respondents were as deemed to be the most appropriate.



### **3.5.1 Piloting the Research Instrument**

Questionnaires review was done and tested on a small number of respondents who possessed similar characteristics as those who were involved in the study. The pilot sample consisted of 24 respondents randomly selected from the target population. According to Mugenda & Mugenda (2003) piloting sample should represent a study sample of 10%. This however, depends on the size of the study sample. Piloting helps reveal vague questions. Further, it allows their review until they convey the same meaning (Mugenda & Mugenda, 2003). Respondents who participated in pilot testing were not involved in the actual study. However, vague questions were discarded and tool modified appropriately for the exercise.

### **3.5.1 Validity of the Research Instrument**

Validity refers to the quality of the research instrument that helps it in measuring what it is supposed to measure. According to Creswell (2005) validity is all about whether an individual can draw useful and meaningful inferences from scores on the research instrument. In order to ensure content validity, the research instruments were reviewed by the research supervisor and other research experts from ODeL department that included research firms.

### **3.5.2 Reliability of Research Instrument**

Reliability focus on whether the results of a research are repeatable. Mugenda and Mugenda (2003), define reliability as a measure of how a research instrument generates steady results or data after repeated trials. Split-half method was used to assess the reliability of the instruments. The same questionnaire was administered to the sample which was divided into two halves, thereafter correlation co-efficient was applied to compare the correlation between the two scores. The computed coefficient was calculated using Spearman-Brown prophecy formula. A coefficient of 0.7 was obtained. According to Mugenda and Mugenda (2003) a value of 0.8 is considered reliable, thus the instrument was considered reliable.

## **3.6 Data Analysis**

Data was collected using questionnaires that were well organized in a way that facilitated analysis through inferential statistics.

### **3.6.1 Regression Model**

Data collected was used in regression analysis to estimate the magnitude and direction of FinTech determinants affecting the performance Wakulima Market in Nairobi County. The

three key elements of financial technology formed a multiple linear regression model specified as shown in equation 3.6 below.

$$Y_t = \beta_0 + \beta_1 Tlbn_t + \beta_2 Mln_t + \beta_3 Mcf_t + \beta_4 Inf_t + \beta_5 Cmp_t + \varepsilon_t \dots \dots \dots (3.3)$$

Where,

$Y_t$  = Performance of Wakulima Market in Nairobi County in year  $t$

$Tlbn_t$  = Tele-banking transactions for year  $t$

$Mln_t$  = Market place Lending for year  $t$

$Mcf_t$  = Merchant and e-commerce financing in year  $t$

$Inf_t$  = Invoice financing in year  $t$

$Cmp_t$  = Transaction costs for year  $t$

$\varepsilon_t$  = Error term in year  $t$

$\beta$ 's = Parameters to be estimated

$\beta_0$  = The intercept/constant

### 3.6.2 Hypotheses Testing

For the hypotheses, simple linear regression models was used to determine whether individual predictor variables predict the outcome for the dependent variable. The statistical regression model was used to help determine the change in the outcome variable resulting from a unit change in the predictor. In the statistical model, the actual values represent the dependent variable (Y) while the predictor values represent the independent variable as shown in the following section.

#### i) Simple Regression Model 1

$$Y_t = \beta_0 + \beta_1 Tlbn_t + \varepsilon_t$$

Where:

$Y_t$  = Performance of Wakulima Market in Nairobi County in year  $t$

$Tlbn_t$  = Tele-banking transactions for year  $t$

$\varepsilon_t$  = Error term in year  $t$

**Hypothesis H<sub>0</sub>:** There is no significant influence of telebanking on performance of MSEs at Wakulima Market in Nairobi County.

ii) **Simple Regression Model 2**

$$Y_t = \beta_0 + \beta_2 Mln_t + \varepsilon_t$$

Where:

$Y_t$  = Performance of Wakulima Market in Nairobi County in year  $t$

$Mln_t$  = Market place lending financing for year  $t$

$\varepsilon_t$  = Error term during period  $t$

**Hypothesis H<sub>0</sub>:** There is no significant influence of market place lending on performance of MSEs at Wakulima Market in Nairobi.

iii) **Simple Regression Model 3**

$$Y_t = \beta_0 + \beta_3 Mcf_t + \varepsilon_t$$

Where:

$Y_t$  = Performance of Wakulima Market in Nairobi County in year  $t$

$Mcf_t$  = Merchant and e-commerce financing for year  $t$

$\varepsilon_t$  = Error term during period  $t$

**Hypothesis H<sub>0</sub>:** There is no significant influence of merchant and e-commerce financing on performance of MSEs at Wakulima Market in Nairobi.

iv) **Simple Regression Model 4**

$$Y_t = \beta_0 + \beta_4 Inf_t + \varepsilon_t$$

Where:

$Y_t$  = Performance of Wakulima Market in Nairobi County in year  $t$

$Inf_t$  = Invoice financing in year  $t$

$\varepsilon_t$  = Error term in year t

**Hypothesis H<sub>0</sub>:** There is no significant influence of invoice financing on performance of MSEs at Wakulima Market in Nairobi.

### 3.6.3 Correlation Analysis

Correlation is a way of assessing the relationship between variables. It measures the extent of correspondence between the ordering of two random variables. There is a large amount of resemblance between regression and correlation, with the only difference being their methods of interpretation of the relationships between variables. The indices that was used for this study was Pearson Correlation coefficient.

### 3.6.4 Regression Analysis

The overall idea of regression was to examine whether a set of predictor variables achieved their goal of predicting an outcome (dependent) variable; as well as specific variables that were significant predictors of the outcome variable. Data obtained was regressed using SPSS 20 statistical application, and inferences made on the findings.

### 3.8 Operationalization of variables

Operational definition of variables is as shown on Table 3.3:

**Table 3.3 Operationalization of variables**

Objective	Variable	Indicator(s)	Measurement Scale	Data Collection Method	Data Analysis
Establish the influence of tele-banking on performance of MSEs at Wakulima Market Nairobi County	Tele-banking (Independent Variable)	<ul style="list-style-type: none"> <li>• No. of transactions</li> <li>• Amount of money transacted</li> <li>• Market share</li> <li>• Banking time</li> <li>• Mobile banking</li> <li>• Ban accounts</li> </ul>	Ordinal	Questionnaire	Inferential statistics

Assess the influence of market place lending on performance of MSEs at Wakulima Market	Market place lending (Independent Variable)	<ul style="list-style-type: none"> <li>• Access to credit</li> <li>• Information/news</li> <li>• Individual lending</li> <li>• favourable lending rates</li> <li>• MSEs market share</li> </ul>	Ordinal	Questionnaire	Inferential statistics
Determine how merchant and e-commerce financing influences performance of MSEs at Wakulima Market	Merchant and e-commerce (Independent Variable)	<ul style="list-style-type: none"> <li>• A/c receivables</li> <li>• No. of sales</li> <li>• Cost reduction</li> <li>• Online purchases</li> <li>• Business size</li> <li>• Ecommerce financing</li> </ul>	Ordinal	Questionnaire	Inferential statistics
Establish how invoice financing affects the performance of Wakulima market MSEs	Invoice financing (Independent Variable)	<ul style="list-style-type: none"> <li>• Orders per day</li> <li>• Return rate</li> <li>• Cross margin</li> <li>• Commercial bank financing</li> <li>• Invoice value</li> <li>• Training on invoice financing</li> <li>•</li> </ul>	Ordinal	Questionnaire	Inferential statistics
To establish the performance of MSEs at Wakulima	Performance of MSEs (Dependent variable)	<ul style="list-style-type: none"> <li>• MSEs Profit</li> <li>• MSEs market share</li> </ul>	Nominal	Questionnaire	Inferential statistics

market					
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### **3.9 Ethical Considerations**

Ethical review becomes necessary where there are human subjects (participants) involved or their data. Ethical considerations across the research community have come to the fore front in recent years. The study purposed to ensure that the names of respondents and their departments were not to be made public and by so doing protect the rights of respondents. During data collection, research assistants ensured that any respondent who opted out of the survey did so without any form coercion. Additionally, the researcher obtained Research permit License from NACOSTI (National Commission for Science, Technology and Innovation) and an authority letter from the University of Nairobi that clearly stated the purpose of this research. Consent was sought from the participants that indicating that they were willing to take part in the study. The study also ensured anonymity when it came to responses to the study questionnaire. The study ensured that the information obtained was solely used for research purposes.

## CHAPTER FOUR

### DATA PRESENTATION, INTERPRETATION AND DISCUSSION

#### 4.1 Introduction

Content in this chapter include data analysis, presentation and interpretation on the findings in the study. Subtitles are thematically arranged in accordance to the study objectives. Data was collected from entrepreneurs and traders at Wakulima market in Nairobi County based on influence of financial technology on performance of MSEs. Data collected was interpreted as per the research questions. Frequencies and percentages were used for the presentation and were guided by the study questionnaire.

#### 4.2 Questionnaire Return rate

The study dispatched 248 out of this 200 were duly filled and returned. The results are as shown in Table 4.1

Table 4.1 Questionnaire return rate

Target respondents	Actual respondents	Return rate
248	200	80%
<b>TOTAL</b>	<b>200</b>	<b>80%</b>

This translates to 80% response rate. A return rate of 50% is considered acceptable according to Mugenda and Mugenda (2003) therefore this response rate deemed fit for the study.

#### 4.3. Respondents Background Information

This section focuses on respondents' background information which include; gender, age, position in the organization and level of education.

##### 4.3.1 Gender of the respondents

The respondents were requested to indicate their gender since this shall enable the study to categorize respondents based on gender and if it has any influence on performance of MSEs. The findings are tabulated in Table 4.2

Table 4.2 Distribution of responses on Respondents gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	132	66.0	66.0	66.0
	female	68	34.0	34.0	100.0
	Total	200	100.0	100.0	

From the findings tabulated in Table 4.2 indicate that 66% (132) of the respondents were male while 34% (68) of the respondents were female. This implied that Wakulima market is dominated by males who carry out business there.

#### 4.3.2 Age of the respondents

Respondents were requested to indicate their age bracket since this shall enable the study to categorize respondents based on age and if it has any influence on performance of MSEs.. Data was analyzed and tabulated in the Table 4.3

Table 4.3 Distribution of responses on Respondents' age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-20	26	13.0	13.0	13.0
	20-35	139	69.5	69.5	82.5
	36 - 50	35	17.5	17.5	100.0
	Total	200	100.0	100.0	

From the resulted tabulated in Table 4.3, majority of the respondents 139 (69.5%) were aged 20-35, 35 (17.5%) of the respondents were aged between while 26 (13%) of the respondents aged between 18-20. This clearly indicates that majority of working population in Wakulima Market are youths.

#### 4.3.3 Respondents position in the organization

The study was sought to know the position of the respondents in the organization. This was crucial in order to ascertain whether the study was targeted the right group. Results were obtained and tabulated in table 4.4



Table 4.4 Distribution of responses on respondents' position in the company

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Partner	72	36.0	36.0	36.0
	Employee	31	15.5	15.5	51.5
	Entrepreneur	97	48.5	48.5	100.0
	Total	200	100.0	100.0	

Results in Table 4.4 indicate that majority of the respondent 97 (48.5%) were entrepreneurs, 72 (36%) were partners while 31 (15.5) were employees. This indicated that the study targets the right population for the study.

#### 4.3.4 Respondents level of education

The study seek to know the respondents education level since this shall enable the study to categorize respondents based on level of education and if it has any influence on performance of MSEs. The finding were tabulated in Table 4.5

Table 4.5 Distribution of responses on respondents' level of education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary	6	3.0	3.0	3.0
	Secondary	159	79.5	79.5	82.5
	college/technical	29	14.5	14.5	97.0
	University	6	3.0	3.0	100.0
	Total	200	100.0	100.0	

Results in Table 4.5 indicate that majority of the respondents 159 (79.5%) had secondary education, 29 (14.5) had college/technical education, while those respondents who had university education and primary education were 6 (3%) respectively. From the findings it's clear that majority of the respondents were literate and well applied their skill to learn their businesses.

#### 4.3.5 Duration of the enterprise

The researcher was interested to know the duration that they have been the business since this shall enable the study to categorize respondents based on duration of the enterprise and if it has any influence on performance of MSEs. Results obtained were tabulated in Table 4.6

Table 4.6 Distribution of responses on duration of the enterprise

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid below 1 year	6	3.0	3.0	3.0
1 -5 years	62	31.0	31.0	34.0
6 - 10 years	72	36.0	36.0	70.0
11 - 15 years	13	6.5	6.5	76.5
over 15 years	47	23.5	23.5	100.0
Total	200	100.0	100.0	

Findings in Table 4.6 indicate that majority of the respondents 72 (36%) had been on their enterprise for 6-10 years, 62 (31%) of the respondent had been on their enterprise between 1-5 years, 47 (23.5%) of respondents had been on their enterprise for over 15 years, 13 (6.5%) respondent had been on their enterprise for 11-15 years while 6 (3%) respondent had been on their enterprise for less than 1 year.

#### 4.3.6 Number of employees in the enterprise

The study sought know the number of employees in their organization since this shall enable the study to categorize respondents based on number of employees and if it has any influence on performance of MSEs. Results obtained were tabulated in Table 4.7

Table 4.7 Distribution of responses on the number of employees in the enterprise

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2-5	9	4.5	4.5	4.5
6-10	30	15.0	15.0	19.5
11 – 15	11	5.5	5.5	25.0
over 15	150	75.0	75.0	100.0
Total	200	100.0	100.0	

From the results obtained in Table 4.7 Majority of the respondents 150 (75%) had over 15 employees, 30 (15%) had between 6-10 employees, 11 (5.5%) had 11-15 employees while 9

(4.5%) had 2-5 employees. This clearly indicated that the enterprises fell in MSEs category which was the focus of the study.

#### 4.4 Telebanking and performance of MSEs

In this section correlation analysis between telebanking and performance of MSEs was done and data tabulated in Table 4.8.

Table 4.8 Correlation Analysis between telebanking and performance of MSEs

		Telebanking	Level Of Performance MSEs
Telebanking	Pearson Correlation	1	.227
	Sig. (1-tailed)		.027
	n	200	200
Level of Performance MSEs	Pearson Correlation	.227	1
	Sig. (1-tailed)	.027	
	n	200	200

Findings in Table 4.8 indicate that there was a weak positive correlation coefficient between telebanking and performance of the MSEs as indicated by correlation factor of 0.227. It was significant at 95% and was found to be statistically significant since the significant value was less than 0.05. This concurred with the expectation that those MSEs that use telebanking perform better.

#### 4.5 Market Place Lending and Performance of MSEs

In this section correlation analysis between telebanking and performance of MSEs was done and data tabulated in Table 4.8.

Table 4.8 Correlation Analysis between market place lending and performance of MSEs.

		Market Place Lending	Performance Of MSEs.
Market Place	Pearson Correlation	1	.534*

Lending	Sig. (2-tailed)		.022
	n	200	200
Performance of Mses.	Pearson Correlation	.534*	1
	Sig. (2-tailed)	.022	
	n	200	200

Results in Table 4.9 show that there was a strong positive correlation coefficient between Invoice financing and performance of the MSEs as indicated by correlation factor of 0.534. It was significant at 95% and was found to be statistically significant since the significant value was 0.022, which was less than 0.05. This agreed with the expectation that those MSEs that use market place lending perform well.

#### 4.6 Merchant & E-Commerce Financing and Performance of MSEs

In this section correlation analysis between Merchant & E-commerce financing and performance of MSEs was done and data tabulated in Table 4.9.

Table 4.9 Correlation Analysis between the merchant & e-commerce financing and performance of MSEs

		Merchant & E-Commerce Financing	Performance Of MSEs
Merchant & E-Commerce Financing	Pearson Correlation	1	.257
	Sig. (2-tailed)		.000
	n	200	200
Performance of MSEs	Pearson Correlation	.000	1
	Sig. (2-tailed)	.257	
	n	200	200

Findings in Table 4.9 indicate that there was a weak positive correlation coefficient between Merchant & e-commerce financing and performance of the MSEs as indicated by correlation factor of 0.257. It was significant at 95% and was found to be statistically significant since the significant value was 0.000, which was less than 0.05. This agreed with the expectation that those MSEs that use Merchant & e-commerce financing perform better.

#### 4.7 Invoice Financing and Performance of MSEs

In this section correlation analysis between Invoice financing and performance of MSEs was done and data tabulated in Table 4.10.

Table 4.10 Correlation Analysis between the invoice financing and performance of MSEs

		Invoice Financing	Performance of MSEs
Invoice Financing	Pearson Correlation	1	0.685
	Sig. (2-tailed)		0.001
	n	200	200
Performance of MSEs	Pearson Correlation	.685	1
	Sig. (2-tailed)	.001	
	n	200	200

Results in Table 4.10 indicate that there was a strong positive correlation coefficient between Invoice financing and performance of the MSEs as indicated by correlation factor of 0.685. It was significant at 95% and was found to be statistically significant since the significant value was less than 0.05. This agreed with the expectation that those MSEs that use invoice financing perform well

#### 4.8 Regulatory framework and performance of MSEs

In this section correlation analysis between Regulatory framework and performance of MSEs was done and data tabulated in Table 4.11.

Table 4.11 Correlation Analysis between the regulatory framework and performance of MSEs

		Regulatory Framework	Performance of MSEs
Regulatory Framework	Pearson Correlation	1	-.062
	Sig. (2-tailed)		.120
	n	200	200
Performance of MSEs	Pearson Correlation	-.062	1
	Sig. (2-tailed)	.120	
	n	200	200

Results in Table 4.11 indicate that there was a weak negative correlation coefficient between Invoice financing and performance of the MSEs as indicated by correlation factor of -0.062. Which significant at 95% found to be statistically insignificant since significant value was

greater than 0.05. This indicate that regulatory framework negatively influence the performance of the MSEs.

#### 4.9 Multiple Regression Analysis

Data obtained was regressed using SPSS 20 statistical application, and inferences made on the findings as shown in Table 4.12

Table 4.12 Multiple Regression Analysis

Model	Unstandardized		Standardized		
	Coefficients		Coefficients		
1	B	SE	B	T	P
Constant	4.012	1.392		3.448	0.078
Telebanking	0.338	0.109	0.213	2.541	0.039
Market place lending	0.597	0.178	0.389	2.907	0.012
Merchant & e-commerce financing	0.292	0.123	0.203	1.718	0.044
Invoice financing	0.545	0.139	0.388	2.711	0.018
Regulatory framework	0.645	0.149	0.398	2.811	0.118

$$Y_t = \beta_0 + \beta_1 Tlbn_t + \beta_2 Mln_t + \beta_3 Mcf_t + \beta_4 Inf_t + \beta_5 Cmp_t + \varepsilon_t \dots \dots (3.3)$$

Where,

$$Y_t = 4.012 + 0.338 Tlbn_t + 0.597 Mln_t + 0.292 Mcf_t + 0.545 Inf_t + 0.645 Cmp_t + \varepsilon_t$$

Where  $Y_t$  = performance of MSEs,  $Tlbn_t$  = Telebanking,  $Mln_t$  = Market place lending,  $Mcf_t$  = Merchant & e-commerce financing,  $Inf_t$  = Invoice financing, X4 = Regulatory framework. . Based on the model employed it confirmed that the independent variables in the study were positively related to the performance of MSES and were statistically significant at 5% significance level. Moreover, all the p-values had values less than 0.05, thus all the null hypotheses in the study were rejected and the alternative hypotheses accepted to be true. Further, it was established that holding Telebanking, Market place lending, Merchant & e-commerce financing, Invoice financing and Regulatory framework to constant, Performance

of MSEs would be at 4.012. An increase in unit in Telebanking would result to an increase in performance of MSEs by 0.338, an increase in unit in Market place lending would lead to increase in Performance of MSEs by 0.597, unit increase in Merchant & e-commerce would result to an increase in performance of MSEs by 0.292, an increase in unit in invoice financing would result to an increase in performance of MSEs by 0.545. Lastly, an increase in unit in regulatory framework would result to an increase in performance of MSEs by 0.645. This confirms that there was a positive relationship between financial technology and performance of the MSEs.

#### **4.6 Discussion**

This section contains the discussion of the results obtained in the study.

##### **4.6.1 Telebanking and Performance of MSEs**

This objective sought to establish the influence of tele-banking on performance of MSEs at Wakulima Market Nairobi County. The results obtained and analyzed indicated that telebanking had a positive influence in performance of MSEs. Tele-banking offers a technology-based self-service option that allows individuals to transact without necessarily going to the banking hall (Dabholkar *et al*, 2013). People enjoy the simplified banking process offered by telebanking and their time is saved for other activities. The entrepreneurs and traders can afford inexpensive business banks

##### **4.6.2 Market Place Lending and Performance of MSEs**

The second objective of the study was to assess the influence of market place lending on performance of MSEs at Wakulima Market Nairobi County. Results showed that there was a strong positive correlation coefficient between Invoice financing and performance of the MSEs as indicated by correlation factor of 0.534. It was significant at 95% and statistically significant since the significance value was 0.022, which was less than 0.05. Most of FMCG (Fast moving consumer good) companies use M-pesa buy goods payment mode in process of distribution of their goods. FMCG companies have a national coverage and they have been paid by their customers (restaurants, other retail outlets and bars) for delivered goods. This has greatly improved small entrepreneurs' access to credit facilities, enabling MSEs like ones in Wakulima market to thrive despite lack of sufficient capital.

##### **4.6.3 Merchant & E-Commerce Financing and Performance of MSEs**

This objective aimed at determine how merchant and e-commerce financing influences performance of MSEs at Wakulima Market. Results analyzed indicated that there was a weak positive correlation coefficient between Merchant & e-commerce financing and performance of the MSEs as indicated by correlation factor of 0.257. It was significant at 95% and was statistically significant since the significant value was 0.000, which was less than 0.05. Most MSEs at Wakulima market are in a position to make profit when they are financed through this method and reach more customers.

#### **4.6.4 Invoice Financing and Performance of MSEs**

This objective aimed establishing how invoice financing influence the performance of Wakulima market MSEs. Results indicated that there was a strong positive correlation coefficient between Invoice financing and performance of the MSEs as indicated by correlation factor of 0.685. It was significant at 95% and was statistically significant since the significance value was less than 0.05. The MSE startup gets money they need to pay their expenses, as the financier keep the invoice until it's paid. The finance transactions settle once the customer honors their invoices in full (Hieminga *et al.*, 2016). This method was found to be appropriate and preferred by most entrepreneurs although they indicated that they require more training on this method.



## **CHAPTER FIVE**

### **SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter present major summary of the findings from the study results and conclusions made. It further presents researchers' recommendation for further research.

#### **5.2 Summary of the Findings**

From the findings obtained it's clear that 66% of the respondents were male while 34% of the respondents were female. This implied that Wakulima market is dominated by males who carry out business there. Majority of the respondents 69.5% were aged 20-35, 17.5% of the respondents were aged between while 13% of the respondents aged between 18-20. The clearly indicated that majority of working population n Wakulima Market are youths. Majority of the respondent 48.5% were entrepreneurs, 36% were partners while 15.5% were employees. This indicated that the study targets the right population for the study. Majority of the respondents 79.5% had secondary education, 14.5% had college/technical education, while those respondents who had university education and primary education were 3% respectively. From the findings it's clear that majority of the respondents were literate and well applied their skill to learn their businesses. Majority of the respondents 75% had over 15 employees, 15% had between 6-10 employees, 5.5% had 11-15 employees while 4.5% had 2-5 employees. This clearly indicated that the enterprises fell under MSEs category which was the focus of the study.

##### **5.2.1 Telebanking and Performance of MSEs**

Findings showed that there was a weak positive correlation coefficient between telebanking and performance of the MSEs as indicated by correlation factor of 0.227. It was significant at 95% and was statistically significant since the significant value was less than 0.05. This concurred with the expectation that those MSEs that use telebanking perform better.

##### **5.2.2 Market Place Lending and Performance of MSEs**

Results showed that there was a strong positive correlation coefficient between Invoice financing and performance of the MSEs as indicated by correlation factor of 0.534. It was significant at 95% and was statistically significant since the significant value was 0.022, which

was less than 0.05. This agreed with the expectation that those MSEs that use market place lending perform well

### **5.2.3 Merchant & E-Commerce Financing and Performance of MSEs**

Results showed that there was a weak positive correlation coefficient between Merchant & e-commerce financing and performance of the MSEs as indicated by correlation factor of 0.257. It was significant at 95% and was statistically significant since the significant value was 0.000, which was less than 0.05. This agreed with the expectation that those MSEs that use Merchant & e-commerce financing perform better.

### **5.2.4 Invoice Financing and Performance of MSEs**

Results indicated that there was a strong positive correlation coefficient between Invoice financing and performance of the MSEs as indicated by correlation factor of 0.685. It was significant at 95% and was found to be statistically significant since the significant value was less than 0.05. This agreed with the expectation that those MSEs that use invoice financing perform well

### **5.2.5 Performance of MSEs**

Based on the model employed it confirmed that the independent variables in the study were positively related to the performance of MSEs and were statistically significant at 5% significance level. Moreover, all the p-values had values less than 0.05, thus all the null hypotheses in the study were rejected and the alternative hypotheses accepted to be true. Further, it was established that holding Telebanking, Market place lending, Merchant & e-commerce financing, Invoice financing and Regulatory framework to constant, Performance of MSEs would be at 4.012. An increase in unit in Telebanking would result to an increase in performance of MSEs by 0.338, an increase in unit in Market place lending would lead to increase in Performance of MSEs by 0.597, unit increase in Merchant & e-commerce would result to an increase in performance of MSEs by 0.292, an increase in unit in invoice financing would result to an increase in performance of MSEs by 0.545. Lastly, an increase in unit in regulatory framework would result to an increase in performance of MSEs by 0.645. This confirms that there was a positive relationship between financial technology and performance of the MSEs.

### **5.3 Conclusion**

Based on the findings in the first objective, it can be concluded that telebanking had a positive influence in performance of MSEs. The relationship is statistically significant. Business people at Wakulima market are able to access loans at low cost using their mobile phones and save a lot of money in the process of acquiring loan.

Based on the findings of objective two, it can be concluded that Invoice financing had a positive influence on the performance of the MSEs. The relationship was statistically significant.

According to results of the study on the third objective, it can be concluded that merchant and e-commerce financing has a positive influence on performance of the MSEs. Most MSEs at Wakulima market are in a position to make profit when they are financed through this method and reach more customers.

Based on the findings of objective fourth, it can be concluded that Invoice financing had a positive influence on the performance of the MSEs. The relationship was statistically significant.

### **5.4 Recommendation for further studies**

The study recommends the following

- i) More studies should be conducted on financial technology and how they influence performance of MSEs in the economy. There much dynamism in the market which is changing every now and then thus creating more threats and opportunities.
- ii) This study focused on MSEs at Wakulima market only, this may not fully represent all the MSEs in Kenya. Further studies can be carried out in other regions in order to obtain conclusive results.

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## **APPENDICES**

### **Appendix I: Transmittal Letter**

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**29/06/2018**

**TO WHOM IT MAY CONCERN**

**RE: INFLUENCE OF FINANCIAL TECHNOLOGY ON THE PERFORMANCE OF  
MICRO AND SMALL ENTERPRISES: A CASE OF WAKULIMA MARKET  
NAIROBI**

I am a postgraduate student at the University of Nairobi taking Masters Degree in project planning and management. Currently, am carrying out a research project on **Influence of Financial Technology on the Performance of Micro and Small Enterprises: A Case of Wakulima Market Nairobi.**

It's with pleasure that am informing on your selection to take part in the study. I therefore kindly request you to fill data in the questionnaire provided. Kindly respond to the items. Information obtained will be treated with utmost confidence and be used for solely academic purpose.

Your willingness and co-operation in this exercise will be highly appreciated.

**Yours Faithful**

**Elena Wanjiku Mwangi**

## Appendix II: Questionnaire

This questionnaire is designed to gather information regarding **Influence of Financial Technology on the Performance of Micro and Small Enterprises: A Case of Wakulima Market Nairobi**. Kindly respond as appropriate. Your response will be as confidential and highly appreciated.

### SECTION A: BACKGROUND INFORMATION

Kindly indicate your:

#### 1. Gender

Male

Female

#### 2. Age

a) 18 – 20

b) 20 – 35

c) 36 – 50

d) Above 50

#### 3. What is your position in the organization?

a) Entrepreneur

b) Partner

c) Employee

#### 4. The highest level of education attained?

a) Primary level

b) Secondary level

c) College/Technical level

d) University level

e) Postgraduate level

5. Duration of the Enterprise?

- i) Below 1 Year
- ii) 1 – 5 Years
- iii) 6 – 10 Years
- iv) 6 – 10 Years
- v) 11 – 15 Years
- vi) Over 15 Years

6. What is the number of employees in the Enterprise?

- i) 1
- ii) 2 – 5
- iii) 6 – 10
- iv) 11 – 15
- v) Over 15

**SECTION B: TELEBANKING AND PERFORMANCE OF MSEs**

One aspect of this study is to establish the influence of Telebanking on the performance of Micro and Small Enterprises (MSEs) at Wakulima Market in Nairobi County. The following statements relate to telebanking. Indicate the extent to which you agree with the following statements by using a scale of 1 to 5 where 1. Strongly Disagree, 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree.

Attribute	Rating				
	1	2	3	4	5
i. Mobile banking has simplified the banking process					
ii. Majority of MSEs prefer Telebanking as it saves on banking time.					
iii. All business owners at Wakulima Market have business bank accounts					

iv. Banking on the phone saves business owners a lot of money					
v. Use of mobile banking leads to increased profit margins for MSEs at Wakulima market.					

6) How do you think MSEs can successfully ensure using their phone to carry out banking services translates into improved performance of business entities at Wakulima market?

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**SECTION C: MARKET PLACE LENDING AND PERFORMANCE OF MSEs.**

The second aspect of the study is to establish the influence of Marketplace lending on the performance of Micro and Small Enterprises (MSEs) at Wakulima Market in Nairobi County. The following statements relate to marketplace lending. Indicate the extent to which you agree with the following statements by using a scale of 1 to 5

1. Strongly Disagree, 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree.

Attribute	Rating				
	1	2	3	4	5
i. Market lending is the most important thing to happen to entrepreneurs at Wakulima market					
ii. Traders can borrow money whenever they feel need to get extra cash for their businesses					
iii. Lenders charge favorable lending rates that ensure MSEs can access funds at low costs					
iv. MSEs with significant market shares have a higher loan limit than those with a smaller market share					

v. Lower loan limits discourage entrepreneurs from borrowing					
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What do you think should be done by lenders to ensure all MSEs at the Wakulima market utilize loan facilities at their disposal?

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**SECTION D: MERCHANT & E-COMMERCE FINANCING AND PERFORMANCE OF MSEs**

The third aspect of the study is to establish the influence of E-commerce financing on the performance of Micro and Small Enterprises (MSEs) at Wakulima Market in Nairobi County. The following statements relate to e-commerce financing. Indicate the extent to which you agree with the following statements by using a scale of 1 to 5

1. Strongly Disagree, 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree.

Attribute	Rating				
	1	2	3	4	5
i. E-commerce financing enables MSEs to make more profit					
ii. Presence of merchants necessitates transactions per day					
iii. Merchants and e-commerce has reduced costs for business owners at Wakulima market					
iv. Online purchases ensure businesses can reach distant buyers without incurring extra costs					
v. Size of the business affects its number of transaction on the online platform					

**SECTION E: INVOICE FINANCING AND PERFORMANCE OF MSEs**

The fourth aspect of this study is to establish the influence of Invoice financing on the performance of Micro and Small Enterprises (MSEs) at Wakulima Market in Nairobi County. The following statements relate to invoice financing. Indicate the extent to which you agree with the following statements by using a scale of 1 to 5

1. Strongly Disagree, 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree.

Attribute	Rating				
	1	2	3	4	5
i. Local commercial banks have embraced invoice financing for MSEs at Wakulima market					
ii. Invoice financing has enabled business entities to grow their market shares					
iii. Invoice financing is a straightforward concept understood by all traders at the market					
iv. Value of the invoice traded is limited by the Treasury and Central Bank of Kenya					
v. More small-scale traders need training on the concept of invoice financing					

**SECTION F: REGULATORY FRAMEWORK AND PERFORMANCE OF MSEs**

The fifth aspect of the study is to establish the moderating effect of the regulatory framework on the performance of MSEs at Wakulima Market in Nairobi County. Indicate the extent to which you agree with the following statements by using a scale of 1 to 5

1. Strongly Disagree, 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree.

Attribute	Rating
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	1	2	3	4	5
i. Tight regulatory measures ensure traders at the market don't lose their money through online transactions					
ii. High-interest rates discourage traders from taking up mobile loans					
iii. Blacklisting of entrepreneurs at the CRB discourage traders from taking up online loans for their businesses					
iv. Telecommunication companies can trace and refund traders' money sent to wrong accounts					
v. The limit in the number of online transactions per day hampers traders' ability to ensure huge profit turnovers					

## SECTION G: PERFORMANCE OF MSEs

The last aspect of the study is to establish key performance indicators of performance of MSEs at Wakulima Market in Nairobi County. Indicate the extent to which you agree with the following statements by using a scale of 1 to 5

1. Strongly Disagree, 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree.

Attribute	Rating				
	1	2	3	4	5
i. FinTech has led to improved performance of MSEs at the market					
ii. MSEs record increased numbers of transactions when they embrace online transactions and payment					
iii. MSEs used to perform well even before the introduction of FinTech in their transaction					

iv. Small traders are the biggest gainers since FinTech was introduced in the trade industry					
v. Improved profit margins are dependent on other factors other than the use of financial technology					

THANK YOU FOR TAKING YOUR TIME TO PARTICIPATE IN THIS SURVEY.



### Appendix III: NACOSTI Permit



## NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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Fax: +254-20-318245,318249  
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Website : www.nacosti.go.ke  
When replying please quote

NACOSTI, Upper Kabete  
Off Waiyaki Way  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref. No. **NACOSTI/P/18/98576/23945**

Date: **31<sup>st</sup> July, 2018**

Elena Wanjiku Mwangi  
University of Nairobi  
P.O Box 30197-00100  
NAIROBI

### RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“Influence of financial technology on the performance of Micro and Small Enterprises: A case of Wakulima Market Nairobi”* I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **30<sup>th</sup> July, 2019**.

You are advised to report to **the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a **copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

  
BONIFACE WANYAMA  
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner  
Nairobi County.

The County Director of Education  
Nairobi County.

*National Commission for Science, Technology and Innovation is ISO9001:2008 Certified*

## Appendix IV: Plagiarism report

### INFLUENCE OF FINANCIAL TECHNOLOGY ON THE PERFORMANCE OF MICRO AND SMALL ENTERPRISES: A CASE OF WAKULIMA MARKET NAIROBI

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