STRATEGIC INNOVATION ORIENTATION AND PERFORMANCE OF MICROFINANCE INSTITUTIONS IN NAIROBI CITY COUNTY, KENYA

VICTOR MWENDWA MUITHYA: BSC (EGERTON), MAPPM (UON)

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other university. No part of this proposal should be reproduced without prior authority of the author and/or Kenyatta University.

Signature…… Date …….....

Victor Mwendwa Muithya

Department of Business Administration

We confirm that the work presented in this thesis was done by the candidate under our supervision as the University appointed supervisors.

Signature ……. Date……..

Dr. Stephen Muathe (PhD)
Department of Business Administration
School of Business
Kenyatta University

Signature ……...Date…….

Dr. Godfrey Kinyua (PhD)
Department of Business Administration
School of Business
Kenyatta University

DEDICATION

To my entire family; Stephanie Cherono my wife, Craig Mbeu Arap Mwendwa our son, Zarah Zawadi Chepchumba our daughter, my parents (Fredrick and Florence Muithya) and siblings, for their love, continued moral support and encouragement while undertaking the study. You indeed remind me of the importance of having joy despite the conditions I am in always.

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ABBREVIATIONS AND ACRONYMS

AMFI	Association for Micro-finance Institutions
ANOVA	Analysis of Variance
ATM	Automated Teller Machines
BRE	Business Regulatory Environment
BSC	Balanced Score Card
CBK	Central Bank of Kenya
CFA	Confirmatory Factor Analysis
CIMA	Chartered Institute of Management Accountants
CMV	Common Method Variance
COVID-19	Corona Virus Disease 2019
CRB	Credit Reference Bureau
CS	Customer Satisfaction
DC	Dynamic Capabilities
EFT	Electronic Fund Transfers
FP	Financial Performance
FSD	Financial Sector Deepening
GDP	Gross Domestic Product
HDI	Human Development Index
IT	Information Technology
KMO	Keiser-Meyer-Olkin
KWFT	Kenya Women Finance Trust
MFI	Micro Finance Institutions
NACOSTI	National Commission for Science, Technology and Innovation
Non-FP	Non-Financial Performance

OECD	Organisation for Economic Cooperation and Development
PAR	Portfolio at Risk
PLS	Partial Least Squares
R&D	Research and Development
RBV	Resource Based View
RDT	Resource Dependence Theory
RF	Regulatory Framework
ROA	Return on Assets
ROE	Return on Equity
ROS	Return on Sales
RTGS	Real- Time Gross Settlement
SACCO	Savings and Credit Co-Operative
SASRA	Sacco Societies Regulatory Authority
SBSC	Sustainable Balanced Score
SEM	Structural Equation Model
SID	Strategic Issues Diagnosis
SIO	Strategic Innovation Orientation
SME	Small and Medium Enterprises
SMEP	Small and Microenterprise Programme
TMT	Top Management Team
UN	United Nations
UNDP	United Nations Development Program
UTAUT	Unified Theory of Acceptance and Use of Technology
UTCAT	Unified Theory of Consumer Acceptance Technology
VIF	Variation Inflation Factor

VRIN	Valuable, Rare, Imperfectly Imitable and Non-substitutable
VRIO	Valuable, Rare, Imperfectly imitable and supported by the Organisation

OPERATIONAL DEFINITION OF TERMS

Customer Satisfaction	The fulfillment of customer expectations measured by customer satisfaction index.
Customer Satisfaction Index	The index of measuring customer satisfaction using myriad aspects; customer loyalty, trust, corporate image, technology, first point of interaction with the bank, bank personnel, service delivery, product , services and access.
Financial Innovation Orientation	Activities involving automation, mobile banking, internet banking and loan appraisal efficiency among micro finance institutions leading to customer satisfaction and improved firm performance.
Innovation Orientation	The principles and belief of a firm on innovativeness that leads to improved firm performance.
Market Innovation Orientation	Openness to introduction of new marketing media, new sales channel and new delivery channels that are not exploited by other competitors in the industry leading to customer satisfaction and improved firm performance.
MFI Performance	The measure of micro finance institutions success through Return On Assets, employee satisfaction and number of customers. This includes both financial and non-financial measures. The term firm and institution was used interchangeably.
Micro Finance Institution	An institution whose primary role is offering microfinance services and is under the

	Association of Micro Finance Institutions in Kenya. The term institution and firm were used interchangeably.
Non Prudential Guidelines	Guidelines involving the issue of pricing by the central bank and moral suasion tools that influence the market behaviour.
Organizational Innovation Orientation	Activities involving routines, procedures, networking and organisation structure that offer efficient operations of the micro finance institutions leading to customer satisfaction and improved firm performance.
Product Innovation Orientation	Activities involving new products, improved products and quality products among micro finance institutions leading to customer satisfaction and improved firm performance.
Prudential Guidelines	Guidelines including bank capital thresholds timelines, asset quality and slowing down excessive competition to ensure the safety and soundness of institutions so that they do not fail.
Regulatory Framework	Activities involving prudential guidelines, non-prudential guidelines and government laws that affect conduct of micro finance institutions.
Strategic Innovation Orientation	Concept of product innovation orientation, organizational innovation orientation, financial innovation orientation and market innovation orientation by micro finance institutions.

ABSTRACT

The financial sector in Kenya is essential for the economic growth of the country. Moreover, Microfinance Institutions,which form part of the financial sector, are critical stakeholders in achieving the Vision 2030 economic goal.They provide financial services to the low cadre people in Kenya. The government has set up various reforms to ensure Micro Finance Institutions' stable performance. Despite these reforms, Micro Finance Institutions have recorded high losses. The study's main goal was to analyse the effect of Strategic Innovation Orientation on the performance of Microfinance Institutions in Nairobi City County. Precisely, the researcher sought to establish the how product innovation orientation, financial innovation orientation, organizational innovation orientation, and market innovation orientation affected the performance of Microfinance Institutions in Nairobi City County. Moreover, the researcher assessed the mediating effect of customer satisfaction and how the regulatory framework moderated the relationship between strategic innovation orientation and the performance of Microfinance Institutions in Nairobi City County. Balanced Scorecard, resource-based view, dynamic capability view, Unified Theory of Acceptance and Use of Technology, Theory of Innovation, and Institutional theories anchored the variables of the study. The research philosophy was positivism. Descriptive and explanatory research designs were carried out. The target population comprised 13 Microfinance Institutions with 1740 employees, and a proportionate stratified and simple random sampling technique was used to sample 352 respondents. Self-administered semi-structured questionnaires were used for gathering both quantitative and qualitative primary data. Moreover, secondary sources of data included reviews of credible published documents. Data was analyzed using descriptive and inferential statistics using SPSS version 23. The results indicated that the effect of product innovation orientation, financial innovation orientation, and market innovation orientation on performance was significant. However, the study found that organizational innovation orientation had an insignificant effect on the performance of Microfinance Institutions. The research findings also pointed out that customer satisfaction partially mediated the nexus between strategic innovation orientation and the performance of Microfinance Institutions. Finally, the findings indicated that the regulatory framework moderated the relationship between strategic innovation orientation and the non-financial performance of Microfinance Institutions however, the moderating effect of regulatory framework on the relationship between strategic innovation orientation and financial performance of Microfinance Institutions was insignificant. The study concluded that strategic innovation orientation is an essential resource that Micro Finance Institutions and other firms need to leverage for improved customer satisfaction, leading to improved financial and non-financial performance. Firms operate optimally under the control of the regulatory framework. The study recommends that firms' intelligence cohorts, both at strategic and operational levels, need to focus on all the strategic innovation orientation constructs to enable broad decision-making that leads to improved and sustained performance, especially in a complex and ambiguous environment. Further, focus on customers is prudent as they are the centre of gravity for performance evaluation. Continued update on the regulatory framework ensures that firms operate within the law.

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Microfinance lending started a long time ago in the 1700s in Ireland and later increased in 1970 when governments realized that introducing capital through commercial banks wasn't the only cure for poverty (Seibel, 2005). Firms have various resources; tangible and intangible, that create core competencies and drive higher performance compared to competitors (Shabbir, 2015). The resources that a firm has shapes its conceptualization of various courses of action and strategy. The performance of firms is pushed by two main factors; customers and regulation. These factors need to be given key attention (Doran & Ryan, 2016). The various strategies or courses of action that Micro Finance Institutions (MFIs) adopt depend on the end state or objective that they want to achieve. MFIs offer banking services to supposedly low-income families and micro enterprises (Helms 2006; Mersland & Strom, 2009).

International integration characterized the financial sector in 2016 with increased international banking activities which led to the transmission of shocks across borders and financial crisis (Global financial development report 2017/18; Ruokonen, 2019). Transactions between developing countries increased while North-South transactions reduced. This character in the financial sector has led to the regionalization of foreign banks. MFIs in the financial sector were affected by these activities in the overall sector.

MFIs need to make use of their inherent capabilities to sustain their performance. The United Nations (UN) has had a significant role in support of microcredit institutions to

reduce poverty. The micro-credit institutions give prominent accessibility to savings, financial aid for poverty-stricken and low-income households poor to move towards more secure livelihoods, credit, transfer remittances, and insurance. The Nobel Peace Prize winners of 2006; Bank and Yunus, were awarded for their contributions in poverty reduction through MFIs (Hudon, Labie & Szafarz, 2019).

Despite numerous accomplishments and obstacles, the success of MFIs has a major impact on economic growth (Basu, Blavy & Yulek, 2004; Ahmed, 2009; Lopatta & Tchikov 2016). Due to an unmet need for financial services, MFIs have grown significantly in Asia and Africa (Basu *et al.*, 2004; Uddin *et al*., 2020). The Economic Outlook for 2017 forecasted growth in micro and Small and Medium Enterprises (SME) finance markets by 10-15%. In Sub-Saharan Africa, the growth was estimated to be 5-10% due to the prevailing environmental conditions. The major problems facing the performance of micro finance institutions are; profitability, portfolio quality, environmental adjustment, customization of methodology and guarantees, financial management, and customer support (Gouillat, 2017).

Guinea and Tanzania have MFIs that have increased in number, yet they face the challenge of satisfactory performance through institutional constraints (Basu *et al*., 2004). MFIs in Nigeria are faced with the problem of credit portfolio, regulation, and sustainability (Anyanwu, 2004). The credit portfolio problem affects MFIs viability while the inability to be self-sufficient affects MFIs sustainability. In the Democratic Republic of Congo, MFIs have challenges in customer satisfaction (Kanyurhi, 2017). These challenges have been witnessed in other parts of the continent.

The Kenyan financial sector had a slowed growth of 3.1% in 2017 yet in 2016 it was 6.7%. This was due to the reduced uptake of credit (Economic Survey, 2018). Despite the various studies to improve MFI performance, the forecast for Kenya's economic growth was a 6.1% growth rate in 2017 but MFIs remained financially unstable and had inadequate regulations (Economic Outlook, 2017). These problems can be solved by having the right strategic decisions on how to effectively tap on the various strategic innovation orientations held by MFIs. Further, Kenya was ranked third in the Sub-Saharan region in terms of innovation (Global Innovation Index, 2018). Kenya's capitalist economy calls for innovation by firms for their survival in the ever-changing environment (Duval & Utoktham, 2014). This can lead to increased awareness of micro finance services by lower people in the society as a function of MFIs (the Republic of Kenya, 2004).

Central Bank of Kenya (CBK) regulates MFIs in Kenya through the Association for Micro-Finance Institutions (AMFI) which has 60 fully paid up members (AMFI Report, 2018) and the members are divided into three; micro finance banks, MFIs dealing with credit only and Savings and Credit Cooperative (SACCO). This study focus was on Micro Finance Institutions. There are 13 MFIs in Kenya classified into large, medium, and small peer groups. The MFIs performance has been at a slow growth rate in Kenya, they recorded a 4.7% growth in assets as of 31st December 2018, 7% decline in 2017, and a 5% growth was witnessed in 2016 (CBK, 2018). The combined loss before tax of MFIs as at 31st December 2017 was Kshs. 622 Million while in December 2018 the combined loss had increased to Kshs. 1.4 Billion (CBK, 2018).

The decline in performance resulted in lower Return on Assets (ROA) at negative 0.9 and a negative 5.5 Return on Equity (ROE). Financial management, portfolio quality, efficiency, productivity, customer satisfaction, and profitability have been the significant challenges facing the performance of MFIs (Stauffenberg, Jansson, Kenyon & Badiola 2003; Mersland *et al*., 2009; Bashir *et al*., 2012; CBK, 2017; Ouma & Kilika, 2018). MFIs in Kenya face the challenge of a limited number of clients and customer satisfaction due to insufficient institutional capacity (Stevenson & St-Onge, 2005; Bashir *et al*.,2012). The portfolio quality for MFIs in Kenya has gone down by 8.9 percent affecting the clients of MFIs in 2017 (CBK, 2017). The decrease in portfolio quality brings about credit risk leading to underperformance and closure of MFIs (Mohammed & Wobe, 2019).

The decline in profitability and portfolio yield in the year 2017 led to a reduction in performance that was marked by lower returns in both assets and earnings at negative 0.9 and negative 5.5 percent respectively (CBK, 2017). This affected the efficiency of MFIs in Kenya since the number of clients reduced and their satisfaction was low. In addition, the availability of new products was minimal leading to productivity problems. Financial management problem has been witnessed among MFIs and commercial banks in Kenya (Wachira, 2017). The financial status of MFIs in Kenya declined by 0.3% in 2016 and grew by 1.1% in 2017 (CBK, 2017). The cost of funds and debt-equity ratios has been to the detriment.

MFIs have to survive in the turbulent environment by using their capabilities well (Wilden *et al*., 2013; Dixon *et al*., 2014). This calls for appropriate strategic choices by

the institution's Top Management Team (TMT) to sustain the performance through customer satisfaction. Only firms capable of satisfying customers enjoy profitability (Zott, 2003; Sun & Kim 2013). Further, firms aim to stay lucrative and solvent so as to be able to achieve their internal and external objectives (Lin *et al*., 2008; Boon, 2011).

There is an increasing demand for MFIs to rethink some policies since they are not a panacea to challenges, and that and that they may be damaging the intended customers(Dichter & Harper, 2007). Superior performance in institutions is mostly achieved through better and appropriate strategies that are achieved through making strategic choices by institutions TMT (Carpenter, 2002; Parayitam &Twigg, 2006; Hambrick, 2007; Olson *et al*., 2011; Chaurasia & Shukla, 2012; Muchemi, 2013; Muithya & Kilika, 2019).

The conduct of MFIs is regulated by the government (Bashir *et al*.,2012; CBK, 2017). The regulatory framework includes the regulations, guidelines, and means used in administering them. It encompasses all appropriate authoritative documents which include regulations, acts, and annexes that help in managing the framework (Edinburgh, 2003). Research by Allaire *et al* (2009) found out that the establishment of a specific legal framework for MFIs in Morocco has helped improve their performance. However, research by Bashir *et al*.(2012) found that the government role was insignificant towards the performance of MFIs in Mombasa.

Dynamic capabilities determine an institution’s reaction to dynamics within the regulatory framework the organization is in (Zahra *et al*., 2006). Strategic innovation orientation as an institutional resource helps in this immediate response. Most MFIs are

influenced by dynamics in the regulatory framework. The regulatory framework indicators include national and organizational culture, governmental regulations and laws, prudential and non-prudential guidelines and industry self-regulation (Ouma & Kilika, 2018). These challenges can thus be addressed by strategic innovation orientation which aims at creating customer satisfaction between the MFIs and their competitors and regulatory framework as critical variables.

1.1.1 Firm Performance

Several concepts and theories on firm performance have been presented and argued by multiple scholars. It is the result of firm activities and investment within a given period. Further, it is used to measure the competitiveness of a firm (Chen, Tsou & Huang, 2009; Muchemi, 2013; Wanjiru *et al*., 2019; Investorwords, 2020). The perspectives for firm performance are thus financial or non – financial as pointed out by Kaplan and Norton (1992). To explain the performance perspectives of firms, the Balanced Score Card (BSC) has been extensively used due to its holistic nature of addressing both financial and non–financial perspectives in different environmental dynamics (Zandieh *et al*., 2020). Financial or non – financial perspectives of performance are thus critical in understanding performance.

The performance perspective has been theorized by the Sustainable Balanced Score Card (SBSC) into six pillars; customers, internal business, finacial, learning, social and environmental (Hubbard, 2009; Zandieh *et al*., 2020). Some indicators of performance are not tangible, while others are tangible. The indicators help in detecting deviations

from the expected performance levels (Sanchez *et al*., 2010; Al-Najjar & Kalaf, 2012; Jenatabadi, 2015).

Financial measures are those involving the use of accounting and financial figures (CIMA, 2020). This information is paramount for the overall expansion of any firm. Financial measures are easy to record and easily available compared to non- financial measures (Olawale & Garwe 2010). Financial measures indicators such assales and sales growth, ROA, ROI, ROE, portfolio at risk, cost per client, return on revenues or costs, profitability, and liquidity ratio are easy to measure and understand compared to non-financial measures because (Olawale & Garwe, 2010; Fatoki, 2011; Lilly & Juma, 2014; Hussein, 2018; Muthinja & Chipeta, 2018; Kilika *et al*., 2019).

Financial measures if only used to measure performance alone lead to a narrow measure of performance thus misleading normative and descriptive theory building (Fatoki, 2011). ROE is the net income to average equity ratio, ROA is the net income to average assets ratio while Debt equity ratio is total liabilities expressed over total equity. PAR is a ratio of loans due not paid on time to total loan due (Investorwords 2020). Scholars (Kicova, 2019; Saeidi, Sofian, Saeidi, Saeidi, and Saaeidi, 2015) have conceptualized performance based on financial indicators of ROA, ROI, ROE, ROS, net profit margin and returns on revenue and costs. Similarly, Ouma and Kilika (2018) argued that productivity, portfolio quality, efficiency, financial management, and profitability have been mostly used as measures of MFI performance. Talibong and Simiyu (2019) conceptualized performance based on profitability alone this did not offer a complete overview of the performance of MFIs. However, financial measures alone do not offer the exact position of the firm since

firm performance should go beyond understanding the financial gains or goals which are internal and objective to include those who interact with the business externally and ensure they are satisfied.

Non-financial performance metrics are based on non-financial data that can come from business units and are used by them to track and manage their operations without accounting input (CIMA, 2020). Non-financial indicators are difficult to quantify due to their subjective nature, but they have an impact on all of the stakeholders with which a company communicates both externally and internally, providing an overall performance indicator (Fatoki, 2011). Thus they are more superior since they cut across the organisation's internal and external aspects. They supplement the limitations of financial measures. Non-financial indicators include customer retention (Kanyurhi, 2017), employee satisfaction (Wanjiru *et al*., 2019), and internal business perspective (Eklof, Podkorytova & Malova, 2018; Junejo *et al*., 2019). Non - financial measures, if only used to measure performance alone, lead to a narrow measure of performance, thus misleading normative and descriptive theory building (Fatoki, 2011).

Junejo *et al*.(2019) used customer satisfaction as an indicator of non-financial performance. Kanyurhi, (2017) and Eklof *et al*. (2018) as well used customer satisfaction in the concept of performance among MFIs and banks respectively. Omran *et al*. (2019) in addition conceptualized performance into a non-financial perspective by using customer satisfaction, employee satisfaction, and internal business perspective. Uddin *et al*. (2020) used job security, financial benefit, training and resources, work environment, and decision making as indicators of employee satisfaction. However, non- financial

measures alone do not offer the exact position of the firm since firm performance should be holistic involving both internal and external stakeholders.

Firms that use the two perspectives achieve enhanced performance compared to those using only one perspective (Bisbe & Malagueno, 2010; Kori *et al*., 2020). The use of both a financial and non – financial perspective mitigates shortcomings of a likely biased performance assessment (Fatoki, 2011). Wanjiru, *et al*. (2019) used the two perspectives in measuring performance of manufacturing firms. Wu and Nguyen (2019) also used the two angles to conceptualize the performance of retail companies. Profitability and sales were indicators for financial performance while new customers and customer loyalty were the indicators for non – financial performance.

MFIs operate in a simple structure with minimal devolution of authority and dependence on a small number of customers which means that customer satisfaction must be maintained and sustained unlike in large firms. This makes it necessary to use financial and non-financial perspectives concurrently when assessing performance so as to have comprehensive measurement of performance elements. The study thus used both financial perspectives; ROA and non- financial perspectives; the number of customers and employee satisfaction to measure performance. This brought a holistic overview of MFIs performance. Further, it brought more insight on the measures of performance in the strategic management field and the use of BSC as an evaluation for performance and a strategic management tool as postulated by Saleheen *et al*. (2018). Further, it provided a foundation for normative and descriptive theory building.

1.1.2 Strategic Innovation Orientation

Strategy, as described by the Lykke model, is a summation of means and ways to achieve ends (Yarger, 2006). Firms have orientations, a multifaceted belief, principle, or focus of the firm, that guide their behavior towards superior performance (Hakala, 2011; Chaney *et al*., 2019; Adams *et al*., 2019). Innovation is the creation coupled with the usage of ideas or behaviors within firms (Damanpour, 2010). Schumpeterian typology of innovation which primarily focuses on product, process, organization, and market innovation has been widely agreed as the groundwork for innovation types (Schumpeter, 1934).

The various strategies or courses of action that firms adopt depend on the end state that they want to achieve. Innovation has been a linchpin to performance (Dobni & Klassen, 2018) thus it needs to be well implemented. Strategic innovation orientation concept calls at having a different process or product that adequately respond to customer needs while varying the fundamentals in the market (Afuah, 2009; Seybold, 2014; Udriyah *et al*., 2019). There are five types of strategic innovation orientations which firms -engage in; new products, new processes, new sources of resources, market exploitation, and new firm organization (Kislingerova, 2008; Trott, 2008; Casadesus-Masanell & Zhu, 2013).

Simpson, Siguaw and Enz (2006) argued that innovation orientation is a philosophy that addresses the various facets of innovation, and it involves the capacity to adopt and implement. Cognizant of the inherent challenges and opportunities in the operating environment, including the strategic aspect to this approach brings about a long-term aspect; thus, firms need to focus on strategic innovation orientation to remain resilient.

Chen, Lin and Chang (2009) and Ionescu and Ionescu, (2015) opined that the openness aspect of strategic innovation orientation is critical since it determines whether the firm strategic managers adopt the new ideas. Dobni and Klassen (2015) argued that innovation orientation should focus on sustainable value creation. The inertia of the status quo has affected the implementation and sustainment of innovation within firms. The focus towards innovation orientation should be leadership-led. Human and Naude (2010) conceptualized strategic innovation orientation as a sub-construct of innovation. It is the dominant approach that a firm used for its strategic focus and competitive posture.

Koech and Makori (2014) conceptualized innovation orientations as process innovations, technology innovations, market innovations, and value innovations. This brings about differences in the conceptualization of strategic innovation orientations. The study adopted and adapted some of these innovation orientations sub-constructs. Altindag and Zehir (2012) conceptualized strategic innovation orientation as being one of the sub-constructs of strategic orientation that affected the performance. On the contrary, Muriungi (2014) conceptualized financial innovation as product, process, market, and technological innovations. These conceptualization differences were mitigated by having distinct sub-constructs of strategic innovation orientation; product, financial, organizational, and market innovation orientations.

Talke *et al.* (2011) conceptualized strategic innovation orientation as means of discovery and satisfaction of emerging customer needs by use of technological solutions. The study used both proactive market and technological orientations as the core types of strategic innovation orientation. The former involves an understanding of the current customer and

emerging needs based on market intelligence. The latter; proactive technological orientation involves engagement in the application of the latest technology to meet customer needs. It involves product and process innovation orientations. The nature of strategic innovation orientation that firms engage is, thus, either complex or simple (Bogliacino & Pianta, 2011; Tavassoli & Karlsson, 2016).

Recent research on the strategic innovation orientation concept has conceptualized it as an establishment's guilelessness to new concepts, the ability to introduce up-to-date products, processes, or concepts, and inclination to current standards by embracing current technology, skills, resources, and supervisory systems. It has been grounded on Resource-Based View theoretical foundation (Hult, Hurley & Knight, 2004; Zhou *et al*., 2005; Chen, Lin & Chang, 2009; Altindag and Zehir, 2012; Gerni, 2013). Rajapathirana and Hui (2018) conceptualized strategic innovation orientation to include various sub-constructs; product, process, organizational, and market innovation orientations. Strategic innovation orientation thus facilitates institutions to learn organizations and trace customers' needs to provide services and products as required (Ergun & Kuscu, 2013).

Extant studies have conceptualized strategic innovation orientation into four indicators; product, process, organizational, and market strategic innovation orientation (Protogerou *et al*., 2011; Piening & Salge, 2015; Kalay & Lynn 2015). The study focused on four subsets of strategic innovation orientation; product innovation orientation, financial innovation orientation, organizational innovation orientation, and market innovation orientation so as to bring insights on the advancement of the holistic view of the strategic innovation orientation.

Bapat, (2017) conceptualized innovation orientation as mediating factor between competitive orientation and performance alongside the connection between customer orientation and performance. The research adopted innovation orientation as a moderator while the current study used innovation orientation as an independent variable. The study focused on various strategic orientations, namely: customer, competitive, cost and innovation orientations.

Some scholars opined that more research needs to be done to bring more insight into the strategic innovation orientation concept (Adams *et al*.,2019) thus the study focused on strategic innovation orientation as an independent variable. The study adopted product innovation orientation, organizational innovation orientation, financial innovation orientation, and market innovation orientation sub-constructs from the studies by Protogerou *et al*.(2011); Piening & Salge, (2015); Kalay & Lynn (2015); Rajapathirana and Hui (2018).

1.1.3 Customer Satisfaction

This is the degree or level of the perception held by the customer or consumer through the image and expectations of the product and service quality and its value (Golovkova, Eklof, Malova & Podkorytova, 2019). Sun and Kim (2013) posited that customer satisfaction positively impacts firm's profitability implying customer satisfaction construct as a proxy of the firms financial conduct. Besides, Belás and Gabčová, (2016) conceptualized customer satisfaction as a process rather than an end product hence a mediating variable.

Hoe and Mansori (2018) posited that customer satisfaction is a driver for growth, competitiveness, and survival in the current economic environment, which is uncertain, complex, and the tempo is higher. Moreover, Saeidi *et al*.(2015) regard it as the intermediary having its indicators in quality perceived by the customer in product or service, customer contentment with cost, and customer pleasure in relation to their expectations. Customer satisfaction is customer-centric because it is viewed from the customers' lens (Nigel & Alexander, 2006).

Materla, Cudney, and Antony (2019) posited that any industry's success lies in the customer perception of the products and services offered. Using the Kano model to explain the satisfaction and dissatisfaction of the customer brings about a customer satisfaction index used as the indicator for customer satisfaction. Customer satisfaction has been conceptualized by Ali and Raza (2017) as meeting and surpassing the needs and expectation of consumers in a given realm. Firdous and Farooqi (2017) conceptualized customer fulfillment as a degree of the extent of meeting expectations. This is similar to the conceptualization that customer satisfaction is based on how well a service or product suffices end-users expectations (Saleem & Rashid, 2011; Ayodele & Oginni, 2019).

The disconfirmation paradigm argues that customer satisfaction is an emotional response to one’s perception of the gap between performance appraisal and the expectations from outcomes (Hennig-Thurau & Hansen, 2000). Customer satisfaction is an intangible benefit that involves a change in customer behavior in terms of loyalty and commitment (Galbreath & Shum, 2012; El-Garaihy, Mobarak & Albahussain, 2014). It further involves repeated purchases or business and positive transfused speech (El-Garaihy,

Mobarak & Albahussain, 2014). Besides, Eklof *et al*. (2018) conceptualized customer satisfaction as a process that influences customer loyalty leading to financial performance. On the contrary, Murugiah and Akgam (2015) conceptualized that customer devotion is an antecedent of customer gratification. This conceptualization difference calls for further research. The study brought insights into this inconsistency.

Angelova and Zekiri (2011) argued that customer satisfaction is a transaction process, based on the expectations as perceived against the actual outcome. A more modern measure of customer satisfaction is provided by the American Customer Satisfaction model (ACSI). Customer satisfaction is a predictor for firm profitability since it's a critical strategic marketing concept (Eklof *et al*.,2018). The current study adopted the customer satisfaction index as an indicator of the customer satisfaction variable.

Tuli and Bharadwaj (2009) conceptualized that customer gratification is a measure of customer allegiance and an institutions' customers' quality. Also, Kanwal and Yousaf (2019) conceptualized that service innovation leads to customer satisfaction. A recent meta-analysis on customer satisfaction and firm performance by Otto *et al*. (2020) emphasized that customer satisfaction is a strategic lever for performance. The study adopted this relationship between customer gratification and conduct in the realm of MFIs.

Based on extant conceptualizations of customer satisfaction, the study adopted it as a factor of mediation between strategic innovation orientation and the performance of MFI, with customer satisfaction index as the indicator for customer satisfaction.

1.1.4 Regulatory Framework

The environment within which firms operate has other competitors and hence not a vacuum. MFIs offer more client trust (Mersland *et al*., 2009). This environment within which they operate has regulators, hence a key determinant of their overall performance. Studies by Edinburgh (2003) used the regulatory framework as a moderator and conceptualized it as guidelines that help in administration. Establishing a specific legal framework for MFIs in Morocco has helped improve the growth of MFIs (Allaire *et al*., 2009). Most MFIs are affected by changes in the regulatory framework (Ouma & Kilika, 2018). Firms' dynamic capabilities determine how they respond to the different regulatory frameworks (Zahra *et al*., 2006).

The regulatory framework indicators include national and organizational culture, government regulations and laws, prudential and non-prudential guidelines and industry self-regulation (Chaves & Gonzalez -Vega, 1994; Christen *et al*., 2003; Mbogo & Ashika., 2011; Harash *et al*., 2014; Okibo & Makanga 2014; CBK, 2017; Mugo, Muathe and Waithaka, 2017; Oketch *et al*., 2020). Organizational culture involves the shared beliefs and values (Schein, 2011). Research by Bashir *et al*.(2012) found that the government role was insignificant towards the performance of MFIs in Mombasa. Research by Lee, Howe, and Kreiser (2019) found out that the organization's culture and national culture affect the way an organization orients itself towards performance delivery. The individualism and collective aspect of Korean firms are shaped by the country's global challenges that affect African countries as well. The institutional theory was used to understand clearly organizational behavior and attitudes (Hermes, 2019).

Regulations laid down by regulation bodies ensure that financial institutions are financially stable and that the competition amongst the firms is sound (Abel, Khobai & Le Roux 2017; Musau *et al.*,2017). Prudential and non-prudential guidelines are critical. Prudential guidelines ensure the safety and soundness of institutions so that they do not fail. It involves increasing bank capital thresholds timelines, improving asset quality, and slow down the excessive competition (Abel *et al*., 2017). Further, it ensures customer confidence and trust (Muriuki & Ragui, 2013). Non – prudential guidelines involve pricing guidelines by the central bank and the issue of moral suasion tools that influence the market behavior (Abel *et al*., 2017). Moral suasion tools are used to influence and pressure but not force MFIs to adhere to policies and guidelines.

The effects of regulations have inconsistency, research by Saraswathy, Kannan, and Parthasarathy (2019) found out that government regulations on demonetization had no negative impact on MFIs performance. Ndegwa *et al*. (2020) found out that the moderating influence of the outer environment on nexus between resource isolation mechanisms and competitive advantage was insignificant. The study had government regulations and laws as indicators for the external environment. Correctly implemented regulations bring about enhanced corporate governance, resilient business models, transparency, optimal operations, and customer management mechanisms. The MFI sector in Kenya needs a legislation review (CBK, 2017). The regulatory framework was the moderating variable in the study on the nexus between MFIs performance and strategic innovation orientation. Government laws, prudential and non-prudential guidelines were the adopted indicators for regulatory framework variables in the study.

1.1.5 Micro Finance Institutions in Kenya

The MFI sector in Kenya has been the fastest growing in Sub –Saharan Africa (FSD, 2012). MFIs in Kenya started in 1990 and the sector has grown over time despite its challenges (CBK, 2017). They contribute greatly to Kenya's economic growth and development Kenya (CBK, 2018; Government of Kenya, 2019). They are vital stakeholders in the achievement of Kenya's Vision 2030 economic pillar (CBK, 2018). There are both registered and unregistered MFIs in Kenya. The registered MFIs are members of the Association for Micro-Finance Institutions (AMFI), an organization based on membership. It was established and registered in 1999 under the Societies Act, to build the capacity of the Kenyan Micro finance industry (Laws of Kenya, Microfinance Act, 2006; Bosire *et al*., 2014).

The AMFI has sixty fully paid up members according to the AMFI report (2018), and the members are divided into three categories of micro finance banks. The activities of regulated MFIs in Kenya are supervised, as stipulated in the Micro Finance Act of 2006 by the Central Bank of Kenya (CBK, 2018). The Micro Finance Act of 2006 stipulates the guiding measures that ensure the competition environment is fair for all MFIs. The MFIs have their main headquarters in Nairobi City County while their branches are in different parts of the country. This ensures that they can reach their clientele and offer services to them effectively and efficiently.

Statistically, the combined loss before tax of MFIs in Kenya as of 31 December 2017 was Kshs. 622 Million. This led to a decline in performance resulting in lower ROA and ROE at negative 0.9 and negative 5.5 percent respectively (CBK, 2017). In 2018, the MFIs

combined loss was Kshs. 1.4 Billion, while in 2019 it was 0.7 Billion and as of June 2020, it was 1 Billion (CBK, 2020). The performance of MFIs has been declining because of various factors; repayment default, market means sustainability, government regulations like interest rate capping law, and funding (Anyanwu, 2004; Mbogo & Ashika., 2011; CBK, 2018; Mohammed & Wobe, 2019). The number of persons with means to acquiring financial services from MFIs is less due to a lack of awareness of MFIs by potential customers (CBK, 2019).

Table 1.1 Combined loss of MFIs between 2015 and 2020

Year	2015	2016	2017	2018	2019	2020
Combined Loss of MFIs (Kshs)	549 Million	377 Million	622 Million	1.4 Billion	0.7 Billion	1 Billion

Source: CBK Reports 2015/2016/2017/2018/2019/2020

In Kenya, MFIs loan portfolio decreased by 8.9 percent in 2017 affecting the clients of MFIs (CBK, 2017). A loan portfolio is crucial for the performance of any MFI. The most common loan portfolio measure is the ratio of the percentage calculated as loan portfolio in arrears over the overall portfolio. It is also referred to as Portfolio at Risk (PAR). It has various indicators that include write-offs, portfolio at risk, provision for expenses, and risk coverage (Stauffenberg *et al*., 2003; Ouma & Kilika, 2018). MFIs also suffer from credit risk (Mohammed &Wobe, 2019), leading to underperformance and closure of MFIs.

The market share of MFIs in Kenya has been fluctuating as some institutions grow while others decline. For example, in 2016, the market share of Kenya Women MFI grew by

1.1% while Faulu MFI declined by 0.8%. Despite the challenges, the MFI sector in Kenya has grown due to reforms, innovation, increase in customers, and diversity in products and services (CBK, 2017). Portfolio caliber, cost-effectiveness, output, money management, and lucrativeness have been the significant challenges facing the performance of Micro Finance Institutions (MFIs). For their sustained growth, these problems need to be addressed in totality. The study focused on the years 2017, 2018, and 2019 since the decline in performance was wanting and the data from the AMFI and CBK for the years 2017, 2018, and 2019 was available. Besides, the terms firm and institution were used interchangeably in the study.

1.2 Statement of the Problem

The Vision 2030 blueprint aims to convert Kenya into a middle-income country by increasing access to financial services by its citizens and improving financial services (the Republic of Kenya, 2008). MFIs contribute significantly to Kenya's economic growth by offering financial services to the lower cadre members of society and people unable to attain commercial bank services (CBK, 2017). Reforms towards this important role of MFIs like Micro Finance Act of 2006; MFI Regulations 2008; Credit Reference Bureau (CRB) regulations of 2009; Guidance Note on Cybersecurity in 2017; interest rates caps of 2015 and recent interest rate uncapping regulations of 2019 have seen ripple effects in the MFIs. Customer relationship management reforms have also increased as part of the reform agendas in Kenya's financial industry (CBK, 2017).

Despite these reforms and initiatives, Kenya's MFIs have declined in their overall performance with a combined loss before tax of Kshs. 622 Million in 2017, Kshs. 1.4

Billion in 2018, 0.7 billion in 2019, and 1 Billion as of June 2020 (CBK, 2020). Further, negative Return on, high employee dissatisacftion and reduction in number of customers banking with MFIs have been reported. These effects on performance can be improved through the adoption of strategic innovation orientation by MFIs (Theodosiou *et al*, 2012; Ferraresi, Quandt, dos Santos, & Frega, 2012).

Talke *et al*.(2011), Theodosiou *et al*.(2012), Ferraresi *et al*.(2012), Lily and Juma (2014) and Ionescu *et al*. (2015) established a nexus between strategic innovation orientation and performance in different contexts both geographically and industry; American, European or Asian countries and in the macro-finance institutions, educational, technological industries, manufacturing, pharmaceutical, aviation, insurance, and multinational enterprises. To improve their performance, MFIs in Kenya can consider adopting strategic innovation orientation.

Extant studies have not focused on the strategic innovation orientation aspects extensively, yet they lead to firm performance. The conceptualization of only two aspects of strategic innovation orientation; product and process, calls for more in-depth analysis on the holistic sub-constructs of strategic innovation orientation (Talke *et al*., 2011; Le Bas & Poussing, 2014). The study considers the four sub-constructs of strategic innovation orientation; product innovation orientation; organizational innovation orientation, financial innovation orientation, and market innovation orientation as key determinants of firm performance.

Further, empirical studies have found out that strategic innovation orientation has varied effects on performance; direct, indirect, significant, and non – significant effects on

(Bouncken *et al*., 2007; Anokhin & Schulze 2009; Rosenbusch, Brinckmann & Bausch 2011; Rosli and Sidek,2013). Strategic innovation orientation's temporal nature also calls for further study (Damanpour, 2010; Cieslik & Qu, 2018). These variations create a need for knowledge advancement on strategic innovation orientation variables.

Moreover, customer satisfaction has been considered as an independent and dependent variable for the relationship with firm performance in extant studies (Galbreath & Shum, 2012; El-Garaihy, Mobarak & Albahussain, 2014; Murugiah & Akgam 2015; Saeidi *et al*.,2015; Eklof *et al*., 2018). This creates conceptual gaps that need to be addressed. Prajogo *et al*.,(2006); Terziovski, (2010), and Gemici *et al*.(2015) used only quantitative data and self-reports in data analysis. Besides, Danneels (2002) used only five firms for analysis while Nuryakin, (2018) used the purposive sampling method. Mutuku *et al*.(2019) used explanatory research design alone while Junejo *et al*. (2019) used purposive sampling which is biased. These methods were weak and hence this study mitigated such weakness by using a non-purposive proportionate stratified and simple random sampling method.

Researches by Mbogo and Ashika, (2011); Harash *et al*. (2014); Mugo, Muathe and Waithaka (2017), and Musau *et al*.(2017) discovered the legal environment was one of the factors that had great importance in influencing MFIs innovation and performance. Ndegwa *et al*.(2020) found out that the intermediary; external environment resulted in a non-significant effect. Research on using the regulatory framework as a moderator between strategic innovation orientation and firm performance has been scant. The

research provided more insights on the regulatory framework moderating effect in the realm of MFIs, thus validating theoretical studies done using the same variables.

Based on the benefits of leveraging on strategic innovation orientation in addressing firm performance, the study hypothesized a more integrated and compositional approach to strategic innovation orientation and firm performance in MFIs by including moderating variable;regulatory framework and mediating variable; customer satisfaction in the study.

1.3 Objectives of the Study

1.3.1 General Objective

The research's main aim was to establish the effect of Strategic Innovation Orientation on the performance of MFIs in Nairobi City County, Kenya.

1.3.2 Specific Objectives

Specifically the study was;

i. To determine the effect of product innovation orientation on performance of MFIs in Nairobi City County, Kenya.

ii. To investigate the effect of organizational innovation orientation on the performance of MFIs in Nairobi City County, Kenya.

iii. To establish the effect of financial innovation orientation on the performance of MFIs in Nairobi City County, Kenya.

iv. To establish the effect of market innovation orientation on performance of MFIs in Nairobi City County, Kenya.

v. To assess the mediating effect of customer satisfaction on the relationship between strategic innovation orientation and performance of MFIs in Nairobi City County, Kenya.

vi. To establish the moderating effect of regulatory framework on the relationship between strategic innovation orientation and performance of MFIs in Nairobi City County, Kenya.

1.4 Research Hypotheses

The following null hypotheses were used in conducting the research;

H_{01}: Product innovation orientation has no significant effect on the performance of MFIs in Nairobi City County, Kenya.

H_{02}: Organizational innovation orientation has no significant effect on the performance of MFIs in Nairobi City County, Kenya.

H_{03}: Financial innovation orientation has no significant effect on the performance of MFIs in Nairobi City County, Kenya.

H_{04}: Market innovation orientation has no significant effect on the performance of MFIs in Nairobi City County, Kenya.

H_{05}: Customer satisfaction has no significant mediating effect on the relationship between strategic innovation orientation and performance of MFIs in Nairobi City County, Kenya.

H_{06}: Regulatory framework has no significant moderating effect on the relationship between strategic innovation orientation and performance of MFIs in Nairobi City County, Kenya.

1.5 Significance of the Study

The current research outcome is of value to the government because it aids in making policies that bring about a permissive and conducive environment for the expansion of microfinance institutions and address their vulnerabilities in the ever-changing contemporary operating environment. The government as the key regulator of MFIs needs to come up with legal policies that continue protecting innovation capabilities through intellectual rights. The study benefits AMFI when making decisions on policy advocacy, capacity building, networking, research, and knowledge development which are part of the AMFI mission statement.

The study provides an insight on the effect of strategic innovation orientation on firm performance in the realm of MFIs in Kenya. It also provides knowledge base on how customer satisfaction impacts the firm and presents a regulatory framework that controls the relationship. The study offers an advancement in strategic management theory as it seeks to explain why individual firms or institutions out-perform others, and further, it provides scholarly advancement in the field of strategic management academics since it was empirical. It is a foundation for future research on strategic innovation orientation and firm performance since strategic innovation orientation concept has been on the rise. The study also helps validate theoretical underpinnings of the Resource-Based View,

dynamic capabilities, Theory of Innovation, Institutional Theory and Unified Theory of Acceptance and Use of Technology (UTAUT).

The research informs the management practices within various firms. Benefits to training institutions and academics in finance, economics, and sociology can also be realized. The study benefits MFIs top leadership and owners when making strategic decisions or policies on their institutions or firms' sustainable growth. The management team needs to have a solid basis for their decision-making on integrating the various strategic innovation orientations for the success of the MFIs. This leads to having efficient and effective MFIs. Practitioners at the senior and middle management levels gain more tools to analyze the institution's innovation management processes, hence improving performance. Continuous improvement in implementing strategic decisions by firm marketing is realized since they have the ability to examine the ecosystem for prospects or risks and respond effectively. Moreover, the study underscores the importance of strategic innovation orientation, customer satisfaction, and regulatory framework in the performance of the firm**.**

1.6 Scope of the Study

The research was based on 13 MFIs, regulated by CBK within Nairobi City County in Kenya between 2017 and 2020 . The data for 2017 to 2020 is available hence the reason for the selection of this period. Further, the performance of MFIs during this period was underwhelming. The basis for conducting the research based on regulated MFIs is because they are obligated to state their records or statement of accounts. The study encompassed product innovation orientation, organizational innovation orientation,

financial innovation orientation, and market innovation orientation as the explanatory variables, MFI performance as a dependent variable, with customer satisfaction being the mediating variable. The regulatory framework was used as the moderating variable. MFI performance was measured by using both financial and non-financial metrics. The employees of the MFIs were the target population who formed the unit of observation since they are vital to the MFI's performance.

1.7 Limitations of the Study

The researcher experienced a myriad of challenges while trying to access the management team of the MFIs due to their positions, policy requirements, and Corona Virus Disease-19 (COVID-19). Use of google online forms mitigated this challenge. The study further experienced challenges due to the sensitivity of the data to be provided by respondents. Seeking prior warrant from the National Commission for Science, Technology and Innovation (NACOSTI) reassured the participating respondents on confidentiality in handling the research data consequentially mitigating this challenge. This was supported through execution of codes in place of respondents' identities and MFIs.

1.8 Organization of the Study

The thesis is organised into five chapters. The first chapter the introduction and presents the background and conceptualization of the study identified variables namely strategic innovation orientation, customer satisfaction, MFI performance, and regulatory framework. The chapter further presents the problem statement, key research objectives and hypotheses, importanceof the study as well as the limitations.

The second chapter presented literature review of the key study variables, namely strategic innovation orientation, customer satisfaction, performance and regulatory framework, and the theoretical literature that supports the study variables was reviewed and empirical gaps of past research studies. A conceptual framework on the connection between different variables wrapped up the chapter.

The third chapter expounded on the methodology, research design, procedures, operationalization of the study variables, the analytical models for testing the hypotheses, and various ethical considerations. The fourth chapter gave a detailed analysis of the research findings, while the fifth chapter provided a concise summary of major findings, conclusion,key recommendations and suggested areas for future study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter the both the theoretical and empirical reviews in relevance to the study were covered. Further, the chapter provided a key conceptual framework indicating the general direction of the hypothesized relationships in the studied variables.

2.2 Theoretical Literature Review

Resource Based View, Unified Theory of Acceptance and Use of Technology (UTAUT), Dynamic Capabilities, Institutional Theory, Theory of innovation, Balanced Score Card (BSC) were reviewed in detail and how they relate to the three constructs of the study.

2.2.1 Balanced Score Card

This model came up as a critique of how performance was earlier conceptualized; which was traditionally measured in financial terms like profitability, ROI, and ROA. Kaplan and Norton (1992) who were the proponents of the Balanced Score Card (BSC) paradigm came up with this tool which measured performance holistically: both financially and non-financially. The balanced score card has oftenly been used as performance measurement and strategic management tool (Saleheen *et al*.,2018; Zandieh *et al*., 2020).

It brings a balanced approach to measuring performance using financial and non-financial metrics (Zandieh *et al*., 2020). Non-financial measures encompass the satisfaction of those with a stake or interest in the firm and customers, existence and

progress of the enterprise, and increase in efficiency and quality (Kaplan & Norton, 1996). The paradigm argues that institution performance should go beyond understanding the financial gains to include those who interact with the business whether they are satisfied. Hubbard (2009) improved BSC to include Sustainable Balanced Score Card (SBSC) with its six pillars, namely: customer, financial, internal business, learning, social and environmental performance.

The BSC helps align the business activities of any organization towards its vision and mission (Lakshmi and Rao, 2017). It further helps in the evaluation of the strategic goals of the firm. The customer perspective involves selling new products, maintaining customer loyalty, and improving customer satisfaction. The internal business or process perspective aims to reduce costs, build new products, improve the reliability of products, and ensure that customers get the best out of the products and services. The learning and growth perspective includes improving design and skills.

Oketch *et al*.(2020) used effectiveness, efficiency, relevance, and financial viability to measure performance amongst independent state agencies. These indicators cover four dimensions of the BSC. Banabakova and Georgiev (2018) also conceptualized BSC as having four main thematic areas; financial, internal business process, customer and organizational growth perspectives. Study by Dambatta (2016) used BSC as a tool to provide quantitative feedback on whether the strategy was generating value, leveraging core competencies, meeting the firm’s customers' needs, and creating financial rewards for its shareholders. The study established that the BSC adoption significantly influenced

Masara flour mills' performance in Kano, Nigeria. The BSC links the MFI performance to the overall strategy (Cooper *et al*., 2017).

Empirical investigation was conducted by Mungai and Moturi (2015)on the ramification of IT outsourcing on banks' performance in Kenya. Their study applied BSC in analyzing all its four perspectives. However, some aspects had an inconsistent relationship with performance, like customer perspective. The study used customer gratification, customer loyalty, and service availability as the key indicators of the customer perspective. The BSC model informs this study since the performance variable is the ultimate factor in this study and is paramount to having theoretical underpinning relating to MFIs performance. In assessing the operations and progress of Islamic Banks in Malaysia, Baber (2019) used the point of views of the customer only which aided in a better comprehension of the customer's perspective that the study adopted as one of the indicators.

Demands by firms to gain an in-depth understanding of what hides behind their profitability demands a look into the non-financial performance metrics. These non-financial performance metrics include the qualitative measures of performance that enhance the evaluation of the performance concept (Hedrik, 2008). Mashovic (2018) study on the critical financial and non-financial performance evaluation methods argued for adopting both non-financial performance and financial performance metrics.

Mashovic (2018) study on foreign subsidiaries performance found out that profitability was a key indicator for financial performance. Financial performance is a lagging measure that involves past actions. On non-financial performance indicators, the study further established that customer satisfaction, and product/service quality was

fundamental. In advancing the balanced scorecard theory, adopting the two perspectives in the study was essential as it helped in MFIs comprehensive performance evaluation.

Thus the BSC forms a good foundation for measuring performance in the current study with financial perspectives; ROA, and non-financial perspectives; the number of customers and employee satisfaction, so as to achieve a complete overview of MFIs performance. This brings more insight into performance measures in the strategic management field and a balanced score card as performance measurement and strategic management tool (Saleheen *et al*.,2018). Further, it provided a foundation for normative and descriptive theory building.

2.2.2 Resource Based View

Resource-Based View (RBV) principal proponent is Edith Penrose (Penrose, 1959). The theory emphasized the constructs of a firm's resources. Assets and dynamic capabilities are crucial determinants of competitiveness and advantage in performance.|Funds are the contributing drivers for a firm's leading competitive advantage. The RBV describes a firm as an amalgamation of assets; tangible and intangible, resources, or competencies associated with the institution and is tedious to duplicate. The RBV has been advanced by researchers such as Barney (1991), Wernerfelt (1984) and Teece, *et al*. (1997).

The RBV focuses on the assumption that resources must be heterogeneous, immobile, inimitable, and non-substitutable. Heterogeneity implies that the skills, expertise, capabilities, and other assets that institutions possess vary from one firm to another and immobility means that resources are not versatile and do not move from one firm to another, at least in the short run. Resources are critical to any institution's growth. The

resources must present value to the firm and deliver an idiosyncratic strategy in contrast to other organisations in the industry. Besides, inimitability of resources by other firms is fundamental (Bowman & Ambrosini, 2003). These characteristics bear a competitive advantage, which is vital for survival.

Surroca, Tribo and Waddock (2010), relate corporate responsibility success as a catalyst to the growth of intangibles such as creativity, human resources, credibility, and culture, resulting in improved corporate financial performance. The improvement in financial performance leads to firm growth. Strategic managers make decisions or strategic choices that affect the firm's operating levels and overall firm performance. Strategic innovation orientation can be viewed as one of the firm resources that it can use for its improved performance.

Firms must cultivate unique non-imitated and highly differentiated resources in order to build core competencies and competitive edge (Barney 1991; Wernerfelt, 1984; Eisenhardt & Martin, 2000). RBV focuses more on the heterogeneity of assets and capabilities as sources of competitive advantage. Hesterly and Barney (2010) posited that a firm’s resources and abilities with VRIN characteristics are imperative for a competitive edge. The key input to competitive advantage is the strategic manager who grasps the future value created by resources and capabilities and not the resources or capabilities themselves. The firm is a conglomerate involving resources and capabilities. A firm has strategic innovation orientation as one of its dynamic potentials. RBV helped in understanding the sub - constructs of strategic innovation orientation that enables firms

to attain customer satisfaction, hence improving firm performance (Shabbir, 2015). RBV supports the essence of utilizing strategic innovation orientation.

Innovation capabilities fall under the firm's capabilities that need to be VRIN (Prahalad & Hamel, 1990; Barney, 1991; Morgan *et al*., 2012; Yu, Ramanathan, & Nath, 2014). Firm capabilities based on the RBV lens are the abilities of a firm to perform tasks in a well-coordinated manner, utilize firm resources effectively to achieve the firm end state (Winter, 2003; Helfat & Peteraf, 2003; Gruber *et al*., 2010; Helfat & Winter, 2011; Gebaur 2011; Yu *et al*., 2014).

Racela (2014) in his research on customer orientation, innovation competencies, and firm performance used RBV and dynamic capabilities to explain the various variables' relationship. RBV did not address how to sustain knowledge; an intangible resource, for the firm's sustainable competitive advantage despite it being the most non-frivolousness resource. Nair and Bhattacharyya, (2019) research on the CSR impact on the financial performance among Indiafirms used a resource-based view in anchoring the resource capital variable that included research and development. On the contrary, a study that assessed the influence of VRIN resources on competitive advantage had contradictory empirical results since value did not significantly affect competitive advantage or performance among Portuguese knowledge-intensive business firms (Baia *et al*., 2019). This inconsistency calls for more empirical research on the validation of the RBV theory.

The RBV anchored strategic innovation orientation; product innovation orientation, organizational innovation orientation, and market innovation orientation since they are part of the firm resources in the realm of MFIs in Kenya. Thus, the study contributed to

RBV knowledge coupled with practice by developing, refining, and validating strategic innovation orientation, customer satisfaction, and regulatory framework.

2.2.3 Dynamic Capabilities Theory

Dynamic capabilities are an organization's ability to achieve novel and unique competitive advantages despite path dependencies and key constraints in its organizational and technical operations (Teece *et al.* 1997). The dynamic capabilities theory borrows from RBV which found out that firm-specific resources are the foundation for dynamic capabilities. This inspired other scholars to come up with the dynamic capabilities theory. Studies by Narayannan, Colwell, and Douglas (2009) found out that dynamic capabilities are necessary to the competitiveness and driving of firm adaptability and innovativeness by creating, improving, and accruing a firm's resources as inputs into the value chain for sustainable advantage.

Organizations operate in an environment with varying degrees of variability, uncertainty, complexity, and ambiguity (Bourne *et al*., 2018). MFIs operate in this environment as well and thus they need to have a response or strategy towards the environment. Dynamic capabilities enable this sound response. Dynamic capabilities are associated with entrepreneurial actions aimed at competitive advantage contrary to operational or ordinary capabilities involved in the firm's routine activities (Eisenhardt & Martin, 2000). Ambrosini, Bowman and Collier (2009) provides the three divisions or classification of dynamic capabilities as: incremental, renewing, and regenerative. Incremental dynamic capabilities focus on the firm's resource base's continuous development, while renewing dynamic capabilities revisit, adjust, and augment the resource base. Internal or external

effects on the firm's existing range of dynamic capabilities by changing how the firm chooses its resource base are termedas regenerative capabilities.

An exploratory study by Muithya and Muathe (2020) found out that dynamic capabilities influences performance of MFIs. Dynamic capabilities theory anchored the study and it linked dynamic capabilities to strategic choice and performance of MFIs. Strategic innovation orientation is perceived as a dynamic capability of the organisation. This study supported the dynamic capabilities view in expounding on the independent variable of strategic innovation orientation.

2.2.4 Institutional Theory

Meyer and Rowan are the main defenders of institutional theory (Meyer, Rowan & DiMaggio, 1991). Through the institutional theory, firms are geared towards legitimacy in the sector they are operating in. This involves having regulations, rules, and policies that shape firms' behavior in a specific environment (Meyer, Rowan & DiMaggio, 1991; Scott, 2007). Legitimacy is practiced through rules and regulations enacted by legal and authoritative bodies like government, professional bodies, cultural practices, and law courts. These bodies bring about pressure towards conformance to norms, also called isomorphism (DiMaggio & Powell 1983, 1991).

The institutional theory looks at firms as social institutions that need to be regulated. MFIs are social institutions that are in constant competition and thus need regulations and guidelines (Scott, 2007; Covin & Miller 2014). External agencies such as professional organizations, state, regulatory authorities, and other sector firms create business and institutional demands, which the firm responds to (Greenwood & Hinings, 1996).

Economic conditions and the decision-making of the firm's main managers have an effect on these institutional demands. Firms move toward practices that are in line with the law, even though they are not proficient, to ensure the firm's external stakeholders' trustworthiness. McKay (2001) went on to say that organizations' rigid adherence to external laws and standards is what keeps them alive.

The institutional theory among firms is based on the social structure within which firms operate (Malika & James 2016). Wanjiru, *et al*. (2019); Nair and Bhattacharyya (2019) used the institutional theory to anchor the external operating environment that controls firms' economic behavior. Social desires ensure that firms behave responsibly. This thus guides the behavior of firm managers at all times. The firm's TMT must possess innovation skills in order to keep the company afloat in the market by making rational and robust decisions. The study used the institutional theory in anchoring the regulatory framework which moderates the behavior of MFIs.

2.2.5 Unified Theory of Acceptance and Use of Technology

This theory integrates several models includingTechnology Acceptance Model, Theory of Reasoned Action, Motivational Model, Theory of Planned Behaviour, Innovation Diffusion Theory,Personal Computer Utilization Model and and Social Cognitive Theory (Lai, 2017; Venkatesh & Morris, 2000). The proponents of UTAUT are Venkatesh, Morris and Davis in 2003. Most scholars have used the technology acceptance model and pleasure arousal dominance as the two key models.

To impart insights about adoption of technology by consumers, the technology acceptance model is helpful. It assumes that acceptance of technology is based on

consumer attitude, which has a relative advantage in terms of ease of use and usefulness. These are based on cognition and not affect. The theory has not fully incorporated other aspects like perceived risks and trust; a shortcoming in the theory (Ghosh, 2019).

A study by Al Aufa, Renindra, Putri and Nurmansyah (2020) on acceptance of the use of mobile hospital application among 148 respondents in Indonesia utilised the Unified Theory of Acceptance and Use of Technology (UTAUT) model for an in-depth comprehension of patient perceptions and satisfaction on adopting the application. The current study adopted the same UTUAT theory in explaining the customer satisfaction construct.

Mehrabian –Russel (1974) pleasure arousal dominance paradigm of effect posits that all emotional responses are entailed in the three domains of affect; pleasure, arousal, and dominance. Pleasure arousal dominance has been used widely in marketing to measure response to environmental stimuli. Studies by Wang and Wang (2010) on acceptance of mobile and internet-based technology among Taiwanese adopted UTUAT. UTUAT has been used to explain technology's use (Aliano *et al*., 2019; Anouze & Alamro, 2019). To support the mediating variable of the study the theory was adopted.

2.2.6 Theory of Innovation

Joseph Schumpeter invented the theory in 1934 (Schumpeter, 1934). The theory upholds that the motivating force for the development of any institution is innovation. According to Vyas (2009), innovation involves the novel products development or improvement of existing goods and services, the use of innovative work practice, new opportunities in

markets, expansion of raw materials and other progressive methods and inputs. Organizational innovation includes improving workplace satisfaction; organizational restructure and gaining access to non-tradable assets (Nakamori, 2020). Peter Drucker integrated marketing and innovation in furthering the theory of innovation to include both technology and economic fields (Nakamori, 2020).

Performance of institutions is improved when there is value addition in products. This further increases the market size of the institution or firm products. Schumpeter is mentioned as key in the spread of effective innovation practices in the early 1800s (Schumpeter, 1934). Kilika *et al*. (2018) in the application of the theory of innovation, argued that innovation strategies lead to first-mover advantage, which is based on the strategic choices that the institution makes. This theory was relevant in anchoring the strategic innovation orientation and customer satisfaction variables in the realm of MFI.

Innovation should be in a continuum, from the inception of an idea to its implementation. If the continuum is not thoroughly followed, there is a likely decrease in the outcome. Thus, innovation is perceived as an enabler of economic progress in the current globalization times (Welfens *et al*., 1999; Suh, 2010). Innovation should create a blue ocean strategy (Kim & Mauborgne, 2017; Nakamori, 2020). Strategic innovation orientation and customer satisfaction variables were anchored on this theory as well.

2.3 Empirical Literature Review

Summary of empirical literature studies reviewed focusing on the study variables was presented in this section.

2.3.1 Product Innovation Orientation and Firm Performance

Schumpeter argued that innovative firms enjoy monopolistic rents which diminish as the other competing firms imitate their products or processes (Schumpeter, 1934). This calls for creative destruction that aims at bringing in new products and processes. Banking and insurance services tailored to the low-income clientele in the banking ecosystem are some of the MFI products. These products vary in a short time depending on the firm's product innovation orientation (Hoque &Chisty, 2011).

Product innovation involves introducing new products in a market and increasing market size (Kapoor & Sinha, 2013). Strategic managers, therefore, need to have an orientation towards the innovation of new products for the firms. Product innovation orientation brings about a focus on the firm products that are aimed at improved performance. It involves having different products, products of superior quality, and modified products (Gunday, *et al*., 2011; Jimenez- Jimenez & Sanz-Valle, 2011; Protogerou *et al*.,2011; Piening & Salge, 2015; Kalay & Lynn,2015; Hoe & Mansori 2018; AlQershi *et al*.,2018).

Research on the effect of innovation orientation on the financial performance of Kenyan Commercial Banks by Koech and Makori (2014) using qualitative analysis of both descriptive and inferential statistics reported that process, market, technology and value innovations influenced their financial performance to a significant extent. The study used process innovations, technology innovations, market innovations, and value innovations as innovation orientations. The study adopted and adapted some of these innovation orientations sub-constructs.

Kiveu *et al*.(2019) study on how innovation influenced firm competitiveness that was conducted on 284 manufacturing SMEs in Nairobi between 2012 and 2014 established that there was positive and insignificant effect on SMEs' competitiveness by product innovation. Process, market, and organizational innovation had significant effect. However, the explanatory powers were low and moderate. The research adopted a descriptive-explanatory research design, with a cross-sectional survey based on a structured questionnaires to collect primary data. Multiple linear regression was applied in analysing The study's gap was conceptual and contextual since the significant concept was innovation and not strategic innovation orientation. The study was also conducted in the manufacturing sector.

Green innovation has been researched as a hybrid of myriad innovations. A study by Tang, Walsh, Lerner, Fitza, and Li (2018) assessed firm performance of 188 manufacturing firms in China established that innovations in product and process has positive and significance effect financial performance. The two sub-constructs were the only used variables of green innovation. The study was conducted in China and within the manufacturing sector thus a contextual gap. Diagnostic tests were conducted. The generalization of the study findings is affected by the 188 samples taken. The study used the two sub-constructs under strategic innovation orientation in MFIs in Nairobi City County.

Research conducted on SMEs in the manufacturing sector in Yemen by Al-Qershi *et al* (2018) established that innovation in firms can only take place when there is adequate human resource capability. Strategic innovation was found to be lacking among

manufacturing SMEs in Yemen. This was due to the inadequate capacity of human resources that required training. The study's various types of innovation were, namely: product, R&D, corporate financial, material, marketing, inbound logistics, outbound logistics, operations, sales and technology innovation which are based on Yang (2014) concept.

A study conducted by Kibugo (2016) on financial innovations influence on Nakuru town MFIs performance discovered that both product innovation and process innovation, combined with institutional innovation had a more considerable influence on the improved performance of MFIs. Improved organisation success and customer loyalty are the results of innovation. Institutional and process innovation had a greater significant effect than product innovation. The study operationalized financial innovation into institutional, product, and process innovation. The inconsistency in the operationalization is a gap that requires to be addressed efficiently. Multiple regression analysis and variance analysis (ANOVA)were adopted. The study was in the realm of MFIs in Nairobi City County and it operationalized strategic innovation orientation using some of the indicators used in the current study.

Strategic innovation orientation have been reported to exhibits significance effect on Safaricom Limited, a telecommunications company, performance in Kenya.The company focused on the product, process, organization, and market innovations that led to its customer satisfaction and hence improved performance (Ibrahim 2016). The indicators for strategic innovation orientation were the design of goods and services, process structure using software to order products at specific times, process and capacity design,

market need. All these influenced customer satisfactions. The study was in telecommunications in a well-established company and thus not generalizable to other sectors. The study addressed this gap by being conducted in the MFI sectors.

Al-Shuaibi *et al*. (2016) study on performance indicators for quality, innovation, and competitiveness among Saudi manufacturing sectors established that quality positively and significantly influenced firms' competitiveness, significantly influencing financial performance. Performance indicators were average sales increase, average profit growth, average ROI, average ROA, the average increase in intrest for products/ services, the average growth in exports, and average growth in the number of employees. Innovation indicators were; latest technology, product/ services, operations improvement. The data through an electronic questionnaire was sent to CEO/ Operations managers in each of the 223 companies. The study used SEM approach to validate the hypotheses. The contextual gap was in the Saudi realm of the study and manufacturing sector. The study addressed this gap by being conducted in the MFI sector and adopted some indicators for the product innovation orientation variable.

Innovation orientation relationship with performance among 106 companies in the finance, fast-moving consumer goods, and banking service sector in Romania was found to have a strong and direct relationship (Ionescu *et al*, 2015). Cronbach alpha for reliability was good at 0.908, and thus reliability was achieved. Convergent validity and discriminant validity were both measured using the Pearson correlation. Data were analyzed using linear regression. The study was conducted in Romania hence a contextual gap. The methodological gap was that not all diagnostic tests were conducted.

New products were some of the indicators for the product innovation orientation. The study also used bothnon-financial and financial indicators of performance measuring. Thiscurrent study addressed the contextual gap by being conducted in the MFI sector and adopted some indicators for the product innovation orientation variable.

Research by Altindag and Zehir (2012) on the various levels of strategic orientations among Turkish family firms found out that strategic innovation orientation provided a substantial positive effect on the firms' performance. The strategic innovation orientation subsets were innovation orientation, market orientation, and entrepreneurial orientation. The study conceptualized innovation orientation as having novel products. The research was on 143 family-owned firms. A questionnaire survey having a Likert scale was administered for collection of primary data. Regression analysis was adopted as the method for hypothesis testing. Cronbach alpha helped to test and determine reliability of instruments. The performance was by use of growth and profitability only. The study was in the Turkish and family-owned firms' context, and conceptually innovation orientation was analyzed as a subset of strategic orientation. The study addressed this gap by being conducted in the MFI sector and adopted some indicators for the product innovation orientation variable.

Financial innovation through reducing costs, risks, or offering improved products, tool or service that satisfies participants' demands better was reported to exhibitsa meaningful impact on deposit taking MFI's performance in Kenya (Ombachi 2013). The research focused mostly on product innovation as the main type of innovation. The study argued that product diversification and product development are as well the major success

factors in product innovation strategies since improved products greatly impact the future of deposit taking MFI's in Kenya. The research however, was not based on other aspects of innovation that firms need to strategically orient themselves toward; process, organizational, and market innovation. Further, the study only looked at the financial perspective of performance.

Mwangi (2013) argued that financial innovation through product, process, and institutional innovations is important in Deposit Taking Microfinance Institutions in Kenya. The study grouped all three innovations under financial innovation. This offers differences from other researchers who view the various innovation orientations as stand-alone. The grouping of the innovations into one leaves out other innovations like market innovation which is vital for performance.

The study used new products, improved products, quality products, and differentiated products as product innovation indicators. Business structure, supervisory and legal regulations, and staff performance measured institutional innovation. The use of a legal framework which is an external factor under organizational innovation is a shortcoming. Process innovation included new channels, responses to customers, and marketing innovation. The study focused on few variables for innovation and only looked at the financial perspective of performance. The study adopted and adapted some of these indicators in the context of strategic innovation orientation.

Chan and Lin (2015) found that MFIs offer different financial products; loan type, loan limit, loan term, loan guarantee/ collateral, loan repayment period. The differentiation of these products brings about product innovation. Study on the effect of service quality and

government role on customer satisfaction among MFIs by Bashir *et al*. (2012) found out that the government role was insignificant while service quality was significant. The service quality or product quality is an end product of innovation. The study used only primary data and the study was in Mombasa County and among two MFIs only thus a contextual gap. Analysis was by regression. The study used service quality or product quality as an indicator of product innovation orientation in the realm of MFIs in Nairobi City County.

Research by Talke *et al*.(2011) on TMT diversity and strategic innovation orientation conceptualized strategic innovation orientation as a proactive market orientation or proactive technology orientation. These two orientations affected the institutional innovativeness thus significantly influenced performance. This brought about a conceptual gap since the research was based on two orientation types only; market and technology or process orientations. The study focused on the manufacturing industry. Strategic innovation orientation was a mediating variable in the study with TMT diversity as the antecedent. The analysis was by use of a cross-national sample of a manufacturing firm that is publicly listed and in big businesses. This further brings about a contextual gap since the focus is on big firms. The study addressed this gap by being conducted in the MFI sector and had product innovation orientation as one of the sub-constructs of strategic innovation orientation.

A study on service quality and customer loyalty among banks in Penang, Malaysia was conducted by Kheng *et al*. (2010). They found out that service qualities related to reliability, empathy, and assurance had a remarkable role on customer loyalty. The

aspects of reliability, empathy, and assurance of a product had ripple effect on customer satisfaction leading to loyalty. Customer satisfaction was conceptualized as a mediator in the study. The study used the quality product as an indicator of product innovation orientation since firms aim at ensuring their products meet reliability, empathy, and assurance aspects. Based on the above empirical studies reviewed, the study adopted new products, improved products, and quality products as indicators of product innovation orientation among MFIs in Nairobi City County.

2.3.2 Organizational Innovation Orientation and Firm Performance

Organizational innovation orientation as a subset of strategic innovation orientation brings about openness to innovation aspects of renewing organizational procedures, mechanisms, systems, routines and networks with the purpose of renewing teamwork, learning, sharing of information, coordination, collaboration, and innovation (Gunday *et al*., 2011; Lilly & Juma 2014; Rajapathirana & Hui 2018; Bustinza *et al*., 2019; Maldonado-Guzmán *et al*., 2019). Lee, Spanjol and Sun (2019) argued that social innovation entails interconnection between institutions. Networking among firms is an aspect of social innovation hence good for organizational innovation orientation.

Research on the determinant of commercial banks' financial performance using descriptive and econometric models found out that number of branches significantly affected the commercial banks in Ethiopia (Sime, Lemmie& Gutu 2020). The number of branches is an indication of networking. The study only focused on the financial aspect of performance; ROA and ROE. The study was in the realm of MFIs, with networking as one of the indicators for organizational innovation orientation.

The study anchored on RBV by Kiende *et al*. (2019) on strategic innovation orientation impact on Kenyan SMEs owned by women performance established that organizational innovation influenced performance positively. The data which was collected data through cross-sectional survey was analysed by use of linear regression. All diagnostic tests were not done thus a problem in reliability. Contextually, the study was in the realm of manufacturing SMEs. Organizational innovation was operationalized as new routines, new procedures, and new capabilities. The study was in the realm of MFIs with indicators for organizational innovation orientation being new organization structure, new routines, and networking.

Research by Maldonado-Guzmán *et al*.(2019) on innovation capabilities among SMEs in Mexico found out that the four sub-constructs of innovation capabilities; marketing and management, product, and the process influenced the SMEs productivity significantly. The research was in realm of SMEs in Mexico while the current study was in MFIs in Nairobi City County. The study had management innovation as one of the sub-constructs of innovation capabilities with the indicators of procedures and organizational structures. The study used organizational innovation orientation as one of the sub-constructs of strategic innovation orientation and adopted procedures and organizational structures as some of the indicators.

Collaborative partnerships through concentric strategic partnerships benefit manufacturing firms significantly by providing opportunities for downsizing, externalizing risks, and sharing knowledge (Bustinza *et al*, 2019). The empirical study was on the effect of collaborative partnerships and Research and Development intensity

on product-service innovation and performance. The study was focused on a cross-sectional study of North American, European, and Asia firms, which brings about the challenge in generalizing the results to other contexts. The research was based on MFIs in Kenya. Networking and innovative capabilities help firms enhance performance. Networking formed part of the indicators for organizational innovation orientation.

Using a survey research design business networking was established to have a significant effect on the performance of SMEs in Nigeria (Adudu, Terlumun & Kabiru 2021). Business networking was operationalized as network governance, network content, and network structure, which brought about the base upon which SMEs connect with their surroundings. The study was based on business networking which is a variable of Organizational Innovation Orientation. Data collection was by use of questionnaires and analysis was byuse of regression analysis.

The study by Anzola-Roman *et al*. (2018) found out that organizational innovation influenced technological innovation outcomes. The study used product and process innovations as the sub-elements of technological innovation. The study analyzed product and process innovation aspects separately. The study used organizational innovation and technological innovations as the independent and dependent variable respectively. The study applied panel data methodology and was in the realms of Spanish firms between 2008 and 2013. The study used the various aspects of strategic innovation orientation (product, financial, organizational, and market) and MFI performance as independent variables and dependent variable respectively.

Organizational innovation mediating effecton the nexus between practices of personnel management and organizational performancewas reported by Farouk *et al*,(2016). The study used organizational innovation as a mediator. The study was conducted amongst various banks in the United Arab Emirates. The conceptual use of organizational innovation as a mediator provided a conceptual gap that this study addressed using organizational innovation orientation as a sub construct of strategic innovation orientation. The study used cross-sectional data which has limitations and it focused on established banks while the current research was in MFIs.

Research by Zaied *et al*. (2015) on organizational innovation influence on firm performance concluded that organizational innovation provided insignificant effect on firm performance. Data was collected from 200 Tunisian firms through questionnaires and email surveys. The topical research explored at the effect of organizational innovation orientation on Kenya's MFIs thus addressing the contextual gap of the research being conducted among Tunisian firms.

A study by Mata and Woerter (2013) on innovation risks, found out that smaller firms are mostly affected by external innovation strategies. In the study, innovation was divided into external and internal innovation. The impact was varied depending on the firm. External innovation includes both strategy and collaboration with other firms on research and development. Internal innovation included the conduct of in-house research and development. Organizational innovation orientation in the study looked at external relations which form part of external relations. This study brings about a conceptual and contextual gap because the concept of strategic innovation orientation is supported on

internal and external innovation, and the context is based in Switzerland. Quantile regression was used in the analysis. The study assessed the effect of organizational innovation orientation and whether the effect is positive among Kenya's MFIs. Networking was adopted as one of the indicators for organizational innovation orientation.

Different innovation types were found to influence the performance of firms positively (Gunday *et al*, 2011). The research was on 184 manufacturing firms in Turkey. Innovation capabilities indicators were; process, market, product, and organizational innovations indicators. The innovative performance was found to mediate between the various innovation types implemented and performance aspects. The link between organizational and product innovation and process innovation and innovative performance was found not to be significant. Face-to-face interviews augmented by questionnaires were used to gather data. SEM approach was used in testing the hypotheses. The contextual gap was in the Turkish realm of the study.

Research by Terziovski (2010) on innovative practices and how it bears on performance among SMEs in Australia's manufacturing sector found out that innovation culture and strategy facilitate the innovation process. They are crucial drivers to performance yet are not used in a strategic and structured manner. RBV was used to anchor the study and the sample was 600 Australian SMEs. The study's independent variables were innovation strategy, innovation culture, formal structures, customer and supplier relationships, and technological capabilities. These aspects form part of the institutional or organizational innovation orientation. SME performance was the dependent variable with product and

process and market aspects as the indicators. Hypothesis testing was by use of Multiple regression analysis and it was found out that innovation strategy and formal structure provided a positive and a remarkable impact on performance. Innovation culture, customer and supplier relationships, and technological capabilities were not significant. Quantitative data was collected from one respondent in each SME and was in SMEs' context in Australia. This makes its generalization difficult to other sectors and countries.

Research by Dobni (2010), supports that innovation orientation is directly linked to the competitiveness advantage and thus improved firm performance. The study grouped the innovation orientation aspects into high innovation orientation and low innovation orientation. Innovation orientation was seen through: intention to innovate, influence, infrastructure, and implementation innovations. Organizational learning and constituency are geared towards organizational innovation orientation through organizational structures. Innovation influence through market orientation and value orientation is linked to a product, market, and process innovation orientation. The study was on a sample of Canadian organizations. New products, new markets, market segmentation, brand reputation, and cooperation were the main indicators. The study adopted and adapted some of the indicators from this study.

Based on the above empirical studies, the study adopted routines, procedures, networking, and organization structure as indicators of organizational innovation orientation in the realm of MFIs in Nairobi City County Kenya.

2.3.3 Financial Innovation Orientation and Firm Performance

Financial innovation through internet banking was established to have a substantial satisfaction effect on the customer, leading to improved performance (Firdous &Farooqi 2017). Further, process innovation has been a source of competitive advantage (Piening & Salge, 2015). It brings about openness to innovation aspects of having automation and process design (Jimenez- Jimenez & Sanz-Valle, 2011). Rajapathirana and Hui (2018) argued that the process innovation within insurance firms can be through ideas like underwriting, call center speeding, claim handling process, and product delivery process. Process innovation involves having the appropriate processing technologies that satisfy future needs. Atakli and Asiedu (2020) research on the consequences of financial upheaval on Bank Depositors in Africa used secondary data and found out that technological processes; ATM, internet, mobile banking reported positive but insignificant effect on the number of bank deposits. The study used financial innovation orientation as one of the sub-constructs of strategic innovation orientation and adopted ATM, internet, mobile banking usage as some of the indicators.

Research by Odhiambo and Ngaba (2019) on e-banking services and Kenyan commercial banks' performance established that mobile, agency and internet banking together with the use of automated cards significantly influenced financial performance. The research depended on descriptive and inferential statistics for its analysis. A census of 43 Kenyan commercial banks formed the target population for the research. The research was premised on the technology acceptance theory and diffusion innovation theory which the current research also adopted. The study was focused on the financial performance

indicators only, yet there are non–financial indicators of performance. Contextually, the research was on established commercial banks. Besides, agency banking, mobile banking, internet banking, and automated cards formed part of the indicators for process innovation indicators of the financial innovation orientation.

Financial innovation through the use of automated cards significantly affected Kenyan Deposit-taking SACCOs' financial performance (Muchangi, Muathe & Titus 2019). The research utilized descriptive and explanatory research designs and multiple linear regression for analysis of data. ROA was the only measure of financial performance utilized, yet there are varied indicators like ROE and profitability. The study was in the realm of Deposit –taking SACCOs while the study was in the realm of MFIs. The study relied on holistic performance indicators for both financial and non-financial. Further, the study adopted an adapted use of automated cards as an indicator for financial innovation orientation.

Moki *et al.* (2019) research on the financial innovation strategy among deposit-taking SACCOs found out that mobile transactions were a measure of financial innovation that was significant in influencing the output of the SACCOs in Nairobi City County. Mobile transactions were considered as one of the indicators for financial innovation orientation. The study was in the realm of deposit-taking SACCOs while the study was in the realm of MFIs.

Further, Junejo *et al.*(2019) study on financial technology impact on customer satisfaction amongPakistani banks established that safety reliability and service security significantly affected customer satisfaction while on the contrary a positive and

insignificant influence was reported for the ease of use. Safety reliability, easiness in usage and service security were some of the indicators of financial innovation orientation in the MFIs. A sample data of 183 participants who were conveniently selected formed the sample size. This brings about a methodological gap. Contextually, the study was conducted in highly established Pakistan banks. The research applied proportionate stratified and simple random technique to determine the sample which obviated biases. Safety reliability, ease of use, and service security formed part of the indicators under the process innovation indicators of financial innovation orientation.

Using descriptive research design, technological innovation was found to have varied effects on Zambia's commercial banks finance performance(Haabazoka 2018). The various innovative financial solutions included mobile, ATMs and internet banking. ATMs and mobile banking had a strong and positive relationship while internet banking provided a weaker performance index financially. The research was in commercial banks realm, which are better established compared to MFIs. In addition, the research design used was weak and the study focused on financial performance only. Further, the research adopted indicators of financial innovations; ATMs, mobile and internet banking as used in the study.

A study by Muthinja and Chipeta (2018) on financial innovation used ATMs, agency banking, internet banking, and mobile banking as indicators of financial innovation. Further, Kemboi (2018) study on influence of automation on Kenyan commercial banks' performance using a descriptive approach research design found out that automation's effect on the performance of banks was significant. Automation included the use of

Automated Teller Machines (ATM) and deposit machines in the banks' operations. The study adopted and adapted some of these indicators in the context of strategic innovation orientation and financial innovations were contextually part of financial innovation orientation. The study used automation as one of the indicators of financial innovation orientation in the realm of MFIs.

Research to analyse the effect of credit risk management practicesandcommercial banks' performance in Kenya by Muigai and Maina (2018) established that loan appraisal had a significant impact on commercial banks' performance. The use of efficient loan appraisal procedures through the use of technology accounts for financial innovation orientation. Focus was on ROA, ROE, and net income only. The study was on these financial measures of performance, in the realm of MFIs with loan appraisal efficiency as one of the indicators for financial innovation orientation.

Product innovation was determined to positively and significantly effect on the financial performance of Saccos in the County of Kirinyaga (Ngure *et al*, 2017). Product innovation was conceptualized as a new deposit account, debit card, credit card, and electronic funds transfer like in the current study. These were adopted and adapted as indicators of financial innovation orientation. Product innovation was conceptualized as a sub construct of financial innovation.

Ahmed and Malik (2015) research on credit risk management and loan performance established that loan appraisal was significant in influencing Pakistan's microfinance banks performance. Data were collected from primary sources and hypotheses testing was by use of multiple regression. The use of efficient loan appraisal procedures through

the use of technology accounts for financial innovation orientation. The study was narrowed down to the finance based pefomance measures only. The study was in the realm of MFIs with loan appraisal efficiency as one of the indicators for financial innovation orientation.

Katula and Kiriinya (2018) research on loan appraisal and Deposit-Taking SACCOs' financial performance found out that loan appraisal was significant in mitigating loan repayment. An efficient means of loan appraisal ensures that customers get their loans on time. The study which was solely on financial measures of performance was conducted in Embu County and among Deposit-Taking SACCOs. The use of efficient loan appraisal procedures through the use of technology accounts for financial innovation orientation. The study was in the realm of MFIs with loan appraisal efficiency as one of the indicators for financial innovation orientation.

Research by Jahan, Ali and Al Asheq (2020) on fundamental determinants of customer satisfaction on internet banking services found out internet banking services effect on customer satisfaction among Bangladesh banks was significant. Abdullai and Micheni (2018) study on how internet banking affected the conduct of operations among commercial banks in Nakuru County, used internet banking as a pointer of financial innovation orientation. The use of internet banking services forms part of financial innovation orientation. Based on these two kinds of research, it has a significant effect on the customer's satisfaction. The studies were in the realm of established banks in Bangladesh and Kenya respectively. The current research used internet banking as one of the indicators for financial innovation orientation and customer satisfaction as a mediator.

Technological innovations using the indicators of customer independence, customer–assisted technology, and customer transparent technology were reported to exhibits positive outcome on the financial performance of Kenyan Commercial Banks (Wachira & Ondigo 2016). The technology innovation orientation was used interchangeably with financial innovation orientation and these types of technological innovations were adopted as some of the indicators for financial innovation. The study used only financial perspectives of measuring performance; profitability. The research relied on financial and non-financial perspectives to determine the performance of MFIs. A census of Kenyan commercial was conducted in the research while the topical research conducted a proportionate stratified and simple random sampling of the MFIs.

Kibugo (2016) investigated the impact of financial innovations on the performance of MFIs within Nakuru town and found out that there was a progressive and significant influence of institutional, product and process innovations on the MFI performance. The research reported insignificanct mediating and moderating effects. The operationalization of process innovation was using process design, cost-effectiveness process, improvement in provision of services, delivery process, and process automation. Data analysis was by application of inferential statistics methods. The study used some of the indicators in the realm of MFIs in Nairobi City County, Kenya.

Research by Hervas-Olivier *et al*.(2014) on process innovation strategy, organizational innovation, and performance of SMEs in Spain established that production process performance is not positively related to research and development efforts. However, it can be improved by synchronous co-adoption of organizational and technological

innovation. Process innovation indicators; cost reduction, flexibility, and capacity improvement, were used. The research sample of 2,412 firms was based on RBV. Questionnaires were used for data collection. The ordinary least squares method is used for hypotheses testing. The contextual gap was in the Spanish realm of the study. The study used automation and process design as indicators of financial innovation orientation.

Financial innovationthrough the value of Electronic Fund Transfers (EFT), cheques, and Real-Time Gross Settlement (RTGS) indicators significantly and positively influenced the financial performance of banks (Cherotich *et al*. 2015). The study was biased on the financial performance indicators only, yet there are non – financial indicators of performance. Contextually, the research was on established commercial banks. The current research was in the realm of MFIs and it used all the indicators of performance; financial and non-financial.

Kahandawa and Wijayanayake (2014) research on mobile banking impact on customer satisfaction among public commercial banks in Sri Lanka, using Spearman correlation found that mobile banking services usefulness which encompassed the ease in usage, relative advantage, risk perception and lifestyle of bank clients had a significant influenceat varied levels of customer satsifaction. Mobile as a banking service provision are an indicator of financial innovation orientation. The study adopted mobile banking as an indicator of financial innovation orientation on the association between strategic innovation orientation and performance in the realm of MFIs.

Financial innovations which were operationalized as cards, internet, mobile, and agency banking were found to significantly affect the financial performance (Ngari & Muiruri 2014). Commercial banks, which are well established formed the realm of the study. The researchwas biased on financial performance perspective only. The current research was in the realm of MFIs and it used both financial and non – financial indicators of performance. The research adopted the use of digital financial services as indicators of financial innovation orientation.

Research by Lilly and Juma (2014) on innovation influence on commercial banks used product innovation, market innovation, process innovation, and organizational innovation as the indicators of innovation. The study found out that advances in technological improvement help in the process and product innovation, leading to improved performance. Multiple hierarchical regression model was dopted for analsing the data. Further, the research did not have any moderator or mediator and thus a research gap that was tackled by the current study.

The study did not adequately address the concept of strategic innovation orientation but looked at the four innovation types. Besides, the context of the study was on one commercial bank only and thus not fully representative. The current study was on the realm of MFIs in Kenya. In addition, Florin (2014) found out that loan appraisal efficiency as a process enhances the firm reputation and hence its improved performance. The study was conducted among private Bangladesh commercial banks. The current research focused on MFIs in Kenya and adopted loan appraisal efficiency as one of the indicators of organizational innovation orientation.

Ngumi (2014) research on banking innovations within commercial banks in Kenya established that product and process innovation substantially affected commercial banks' performance. Automation, mobile banking, internet banking, debit and credit cards, and electronic funds transfer were some of the financial innovations indicators used. The study used the financial perspective of performance only; ROA, customer deposit, total income, and profitability were performance indicators. The study was in the realm of commercial banks which are more established. The current study adopted and adapted some of these indicators for financial innovation orientation variable and firm performance variable in the realm of MFIs.

Muriungi (2014) study assessed financial innovation and financial performance of micro-finance taking deposits and found out that innovation in product, process, market, and technological positively and significantly influence financial performance index measured using profitability, ROA, growth in deposits accounts, and balanced sheet strength. The study used both product and technological innovation with the same indicators. The current study mitigated this by using product innovation orientation, organizational innovation orientation, financial innovation orientation, and market innovation orientation as the sub-constructs of strategic innovation orientation.

Innovations through automated teller machines, debit cards, electronic funds transfer, Real Time Gross Settlement (RTGS)and credit cardswere found to significantly influence organizational effectiveness and operational efficiency by reducing costs and risks (Malik, 2014).The fact that the study was among commercial banks creates a contextual gap even though the innovation indicators resonate well with the processes of banks

under the financial innovation orientation. The current study was in the realm of MFIs and adopted and adapted some of the financial innovation orientation variable indicators.

Research by Ergun and Kuscu (2013) on innovation orientation, market orientation, and e-loyalty among Turkish e-commerce clients established that market focus drives exploration on customer needs leading to innovation orientation. E-commerce is a form of financial innovation that can be measured through e-loyalty. The study used hierarchical regression analysis and established that innovation orientation had substantial positive impacts on e-loyalty. The study used convenience sampling and thus was not fully representative. This was a methodological gap that needs to be addressed. Automation and process design were some of the indicators for financial innovation orientation.

Financial innovation through product, process, and institutional innovations is essential in Deposit-Taking Microfinance Institutions in Kenya (Mwangi, 2013). The study grouped all three innovations under financial innovation. Process innovation included new channels, responses to customers, and marketing innovation. The study was conducted focusing on few variables for innovation and only looked at the financial perspective of performance. The current study adopted and adapted some of these indicators in the context of financial innovation orientation.

Research by Talke *et al*. (2011) on TMT diversity influence on strategic innovation orientation conceptualized strategic innovation orientation as having both market and technology proactive orientations. These two orientations affected institutional innovativeness and significantly influenced performance. This brings about a conceptual

gap since the research was based on two orientation types only; market and technology or process orientations. The study was focused on the manufacturing industry. Strategic innovation orientation, mediating variable, with TMT diversity as the antecedent. The analysis was based on cross-sectional sampled publicly listed manufacturingfirm. This further brings about a contextual gap since the focus is on big firms.

Kislingerova (2008) posited that process innovation entails the introduction of novice production and delivery methods that include changes in technology, software, or equipment to improve firm performance. Processing entails related activities like key implementations or value creation geared towards the end state of performance (Papulova, Papula & Oborilova, 2014). The difference between the current and final state is the process function that deeply needs to be thought about. This forms a reasonable basis for financial innovation orientation. Based on the above empirical studies, the study adopted automation, mobile banking, internet banking, and loan appraisal efficiency as indicators of financial innovation orientation in MFIs.

2.3.4 Market Innovation Orientation and Firm Performance

Organisation orientation towards the market innovation brings about openness to innovation in expanding markets, product promotion, and market diversification. This subset of strategic innovation orientation has the customer needs in mind all the time (Zhang & Duan, 2010; Gemici & Alpkan, 2015; Lilly & Juma 2014; Rajapathirana & Hui 2018). Market orientation leads to market innovation that brings about the sustainable competitive advantage that influences performance. An empirical study by Na *et al*(2019) and Udriyah *et al (*2019) separately assessed market orientation on performance. Through

introduction of new markets that render the initial markets irrelevant, the blue ocean strategy of value innovation is supported by the blue ocean strategy (Lilly & Juma, 2014; Udriyah *et al*.,2019).

The firm's new approach generates and increases brand demand while also decreasing or removing features or services that the current or potential market finds less valuable (Lilly & Juma, 2014). The marketing capability influences the rate of intensity in innovation and sustained competitive advantage. Marketing innovation has varied effects on performance. Marketing capability had an insignificant effect on market performance in Nuryakin (2018) research on competitive advantage, product innovation, and Batik SMEs' marketing performance. This is contradictory to other studies that marketing capabilities influence performance significantly (Morgan *et al*., 2012).

Research by Maldonado-Guzmán *et al*.(2019) on innovation capabilities among SMEs in Mexico found out that the four sub-constructs of innovation capabilities; product, process, market, and management contributed significant positive effects on SMEs output. This study was undertaken in the SMEs realm in Mexico, while the current study was among MFIs. Marketing was one of the sub-constructs of innovation capabilities used in the research. The current study used market innovation orientation as one of the sub-constructs of strategic innovation orientation.

Innovation capability led to innovation types that led to Sri Lankan insurance companies' firm performance. The innovation types were the product, process, organizational, and market innovation (Rajapathirana & Hui 2018). The organizational innovation had a less significant effect on the companies' performance; contrary to other innovations had

which reported significant effects. Cronbach Alpha was applied in the testing reliability coefficient. The study used only financial measures of performance; ROI, Return on sales, and profitability. Besides, the study used only qualitative data which is subject to biases. Market innovation was operationalized as new media or technique, new sales channels, and new delivery channels in the current research. The topical research was in the realm of MFIs in Nairobi City County.

Marketing innovation had both direct and indirect relationships with competitiveness (Gupta *et al*, 2016). The study was based on Indian information technology companies and structured survey questionnaires wasadopted for collection of data. The research used approach to the market, communication channel, product delivery, and service delivery as marketing innovation indicators. The current study used product promotion as one of the indicators of market innovation orientation, and it was conducted in the realm of MFIs in Kenya.

Research by Rosli and Sidek (2013) titled “Impact of innovation and performance” assessed 284 Malaysian SMEs operating in food and beverage, textile, clothing, and wood industries and established that product innovation had more significant influence than market and process innovation. Market innovation was operationalized as promoting online transactions and innovative marketing. These indicators are similar to those by Otero-Neira, Lindman, and Fernandez (2009). The study used hierarchical regression analysis for analyzing data. The current study adopted some of these indicators. Contextually, the study was conducted in Malaysia, and thus a gap. The study did not

focus on all the four strategic innovation orientation types. The current study was in the realm of MFIs and tested all four aspects.

Innovative orientation and timely strategic choices played a significant role in influencing the Turkish Air transport industry's performance since it increased competitive advantage and market size (Gemici *et al*, 2015). In response to the competition, the Turkish airline came up with two innovative conflicting positions at the same time that enabled it to operate in the domestic and global markets while maintaining its focus on the customers. This innovation of expanding its market with a focus on its customers made it have a competitive advantage. The study focus was limited to the aviation industry and thus not easy to generalize in other industries. Only one strategic innovation orientation, market innovation orientation, was focused on in the research. The study further was limited to the domestic market only and relied on quantitative data only. The study focused on innovation theory only.

Research by Zhang and Duan (2010) analysedeffect of market orientation with strategic innovation orientation in performance of novel products among manufacturing firms in China. The research established that market orientation, strategic innovation orientation had a substantial and positive impact. In addition, a significant moderating effect was reported for strategic innovation orientation and technological turbulence on the association between market orientation and performance relationship of new products. The study had a contextual gap since it was among Chinese manufacturing firms, while the topical study focused on Kenya's MFIs. The topicalresearch used new media or techniques, sales channels, and delivery channels as market innovation orientation

indicators. Financial as well as the nonfinancial indicators were adopted as the dependent variables while strategic innovation orientation was the independent variable.

2.3.5 Strategic Innovation Orientation, Customer Satisfaction and Firm Performance

Research by Kanten and Darma (2017) on consumer behavior, marketing strategy, customer satisfaction, and business performance used the SEM analysis method and found out that customer satisfaction positively impacted hotel business performance in Indonesia. The study used a combined purposive and accidental sampling method that is weak due to biases. The current study mitigated bias by adopting a proportionate stratified and simple random sampling method. Customer satisfaction was as well adopted as a mediator of the association between strategic innovation orientation and performance in the realm of MFIs.

Product innovation significantly affected customer satisfaction of the Nigerian service market. Customer satisfaction was operationalized as meeting the customer expectations and surpassing their needs (Ayodele & Oginni2019). The current study adopted the customer satisfaction index as the customer satisfaction indicator on the correlation between strategic innovation orientation and performance in the realm of MFIs.

Hoe and Mansori (2018) research assessed influence of product quality and customer satisfaction, and loyalty as a moderating variable. Using multiple regression analysis for hypothesis testing found out fully, satisfaction of customers mediated the association between product quality and loyalty among the Malaysian engineering industry. Product quality is an aspect of product innovation that influenced customer satisfaction. The

current study adopted customer satisfaction as a mediator and quality product as an indicator of product innovation orientation in the nexus between strategic innovation orientation and performance in MFIs realm.

Xie *et al*. (2017) research on CSR, customer satisfaction, and financial performance among 238 firms in China and Vietnam found that customer contentment has full medication effect on the correlation between CSR and the fiscal performance. Customer satisfaction was determined through a customer satisfaction index that included product quality, quality of service, perceived quality and value customer choice intention, and customer loyalty. To measure financial performance, ROA and Return on Sales (ROS) were used.

Research by Ngo and Nguyen (2016) on the quality of service, customer devotion and customer satisfaction relationship among Vietnamese retail banking segments found out that customer satisfaction indicated significance mediation effect on service quality and customer loyalty. The study used a sample size of 261 conveniently sampled respondents. The current research used customer satisfaction as a mediator.

The interdependency among customer satisfactionand financial performance as possibly moderated by loyalty among Czech commercial bankswas analysed using multiple regression. The study established that customer satisfaction led to loyalty that was associated with firm financial performance (Belás & Gabčová2016). The study used customer satisfaction as an antecedent of financial performance. This supports customer satisfaction as a process rather than an end product hence a mediating variable. Thus, the

current study adopted customer satisfaction as mediating between strategic innovation orientation and performance in the realm of MFIs.

Ali and Raza (2017) research on customer satisfaction and perception of service quality among, Pakistan Islamic banks, using regression analysis found out that the quality of service perception significantly affected the satisfaction of customers Customer satisfaction was evidenced to be a function of service quality which is similar to product quality; an indicator of product innovation orientation in the current study. Data was captured through use of questionnaires. Customer satisfaction was measured as an index, and thus the current study adopted the customer satisfaction index as the indicator for customer satisfaction in the interdependency between strategic innovation orientation and performance in the context of MFIs.

Study on customer satisfaction influence on Libyan banking sector, using multiple regression analysis found out that customer loyalty and service quality had a positive and significant at 95% level of significance effecton customer satisfaction while security on the contrary showed a negative but significant influence (Murugiah & Akgam 2015). Service quality, loyalty of the customer and security were the antecedents of customer satisfaction which was measured as an index. Thus the current study adopted the customer satisfaction index as the indicator for customer satisfaction. The reversal relationship exhibited and reported between satisfaction and loyalty of customers calls for further research as echoed by Otto *et al*. (2020) recent meta-analysis on customer satisfaction and firm performance, emphasizing that customer satisfaction is a strategic

lever for performance. The current study adopted this relationship of customer satisfaction as a mediating variable in the realm of MFIs.

Empirical research on the effect of electronic banking on customer satisfaction among Islamic banks in Nigeria found out that there was a significant effect on the relationship (Dasuki, 2019). The study adopted customer satisfaction as a dependent variable. Electronic banking, which is similar to the current study financial innovation orientation, was the independent variable in the study. The current study adopted customer satisfaction as a mediating variable in the realm of MFIs.

Good quality of internet banking servicespositively and significantly affected the satisfaction of bank customers in New Delhi (Firdous & Farooqi 2017). Customer satisfaction was measured as a rating of the expectation level using a Likert scale and data analysed using correlation and regression analysis. The study was conducted on wellestablished banks in New Delhi, while the topical study was in the realm of MFIs which are not well established. Besides, the current study adopted the customer satisfaction index as the mediating factor between strategic innovation orientation and performance.

Eklof *et al*. (2018) research on association of customer satisfaction and financial performance using panel data between 2004 and 2014 established significance influence on financial performance attributable to customer satisfaction amongst Scandinavian banks. Customer satisfaction index was used as the measure of customer satisfaction. The

study used ROA, ROE, profit margin, and operating income as measures of financial performance. The current study adopted the customer satisfaction index as a mediator of the relationship between strategic innovation orientation and performance.

Research on mobile banking services' impact on customer satisfaction among Sri Lankan state commercial banks using Spearman correlation by Kahandawa and Wijayanayake (2014) found that the different aspects of usefulness of mobile banking services and the lifestyle of bank users effect on customer satisfaction was significant. Likert scale was employed in measuring customer satisfaction. The current study adopted the customer satisfaction index as an indicator of customer satisfaction.

Research by Galbreath and Shum (2012) on the interceding effect of customer satisfaction between CSR and financial performance found that customer satisfaction mediated the relationship. The study was among Australian business firms and it embraced a survey method to gather data from managers. The current study adopted the customer satisfaction index as an indicator of customer satisfaction.

Shanka (2012) research Ethiopian banking sector to establish the association between bank service quality, customer satisfaction, and loyalty. The study reported that customer satisfaction significantly affected loyalty. The study was conducted among commercial banks by use of purposive probability sampling to identify respondents. This method is weak for data collection. The collection of primary data was through the application of questionnaires. The study used customer satisfaction as the mediator between service quality and loyalty. The current study adopted the customer satisfaction index as an

indicator of customer satisfaction on the nexus between strategic innovation orientation and performance in MFIs.

Based on above empirical studies, the current study adopted customer satisfaction index as an indicator of customer satisfaction; mediating variable, on the nexus between strategic innovation orientation and performance among MFIs.

2.3.6 Strategic Innovation Orientation, Regulatory Framework and Firm Performance

Regulatory framework as a moderating variable directly influences the direction of the dependency between strategic innovation orientation and business performance (Harsh *et al*., 2014). Research by Oketch *et al*. (2020) on the top management's psychological characteristics and organizational performance used the legal environment as the relationship's moderator. The indicators of the legal environment were sector policies, acts of parliaments, and regulations. The legal environment established a moderating impression on the relationship. The current study employed regulatory framework as the moderator of the link between the independent and dependent variable among MFIs in Nairobi City County, Kenya with Acts of parliaments as one of the indicators.

Research by Ndegwa *et al*. (2020) on the resource isolating mechanisms and sustainable competitive advantage examinedremote environment as a moderator. The external environment indicators were as provided by Porter's model namely political, social-cultural, technological, legal and economic factors. The current study used government laws and regulations as an indicator for a regulatory framework which was the

moderating variable. They reported external environment exhibits significant moderating effect within the commercial banks in Kenya.

Chepkutwo *et al*. (2019) research examined CBK prudential guidelines influence on MFI operations, and found out that MFIs have not fully implemented CBK prudential guidelines and thus it affects the attainment of their objective. The prudential guidelines are aimed at increasing the source of funds of MFIs, ensure MFIs maintain a liquidity ratio of 20% of all their liabilities. The current study used prudential guidelines as an indicator of the regulatory framework in the realm of MFIs in Nairobi City County.

Mugo, Muathe and Waithaka (2017) established if government policies hadmoderating impact on mobile technology services and this contributes to performance of SACCOs in Kenya. Applying explanatory research design, theyestablished that policies moderately affected the relationship between the two entities. Data were collected from 86 Deposit-Taking SACCOs by use of questionnaires. The dimensions for the policies et by government were; policies on data security, policies on mobile banking, and Sacco Societies Regulatory Authority (SASRA) policies. The research adopted a positivist philosophy. Performance indicators were; ROA, liquidity ratio, and membership. A contextual gap exists because the study was based on deposit-taking SACCOsonly.

Prudential regulatory framework was established to have a meaningfuleffect on the performance of deposit-taking SACCOs in Kenya (Mutinda, 2016). The study used minimum liquidity, minimum capital, loan provisioning and minimum investment requirements as the indicators of a prudential regulatory framework. Evaluation of performance was undertaken using Return on Equity. The current study adopted a

prudential regulatory framework as one of the regulatory framework indicators and was in the realm of MFIs since the study was limited in scope because it dealt with SACCOs only.

Gemici *et al*.(2015) on disruptive innovation application in creating competitive strategy within the Turkish Airline industry found out that government deregulation policies can lead to an influx of new entrants in the market and this calls for a response by the firms in the industry. The study focus was limited to the aviation industry and thus not easy to generalize in other industries like the MFI industry and the regulations affecting the aviation industry are different from those in the MFI industry. The current study focused on MFIs.

The external environment was found to moderate the nexus between stability of the commercial banks in Kenya with financial inclusion (Musau *et al*,2017). The indicators for the operating environment were inflation and gross domestic product. It was established by the research that the operating environment significantly moderated the two variables under study while using panel multiple regression for analysis. The study conducted all the diagnostic tests and was thus reliable. The study was in the realm of commercial banks which are primarily developed and stable. The current study was in the realm of MFIs and used the term regulatory framework interchangeably with the operating environment.

An empirical research by Harash *et al*.(2014) on contingence factors and performance of R&D among universities in higher education in Iraq found out that government policy moderately affected the two. Government policy is part of the regulation, which might

also affect MFIs. The existence of a legal framework through microfinance laws and regulations in Morocco has helped in fostering the growth of Moroccan MFIs (Allaire *et al*.,2009). A case study approach combined with correlation analysis was used in identifying controllable institutional factors that could be used in the regulation of MFIs in Morocco. The use of a small sample size was a challenge. The contextual challenge was that the research was in Morocco and North Africa countries which have different political systems and stability. The MFIs were also not financially related.

Bashir *et al*. (2012) in examine service quality, government role and customer satisfaction among MFIs found out that the government role was insignificant while service quality was significant. The study used only primary data and the study was in Mombasa County and among two MFIs only thus a contextual gap. Analysis was by regression. The current study used customer satisfaction as an indicator of non –financial performance and government role as an index for the regulatory framework.

Analysis on effect of regulation on MFIs performance in India found out that the effect was significant. The regulations included government regulationson lending, customer protection lending (Amma *et al*.(2019). The current study adopted and adapted some of these regulations in the regulatory framework. The regulatory framework variable was an independent variable in the study and yet it is an external factor that should be considered as a moderating variable. The regulatory framework was hypothesized as a moderating variable in the topical study.

The legal framework provides the enabling environment for the growth of MFIs. Armendariz and Szafarz (2011) found out that MFIs suffer from mission drift challenges

in that they deviate from their initial mission of alleviating poverty. The study by Okibo and Makanga(2014) assessed micro-finance effect on poverty reduction using the regulatory framework as the intervention variable of the link between credit facilities and poverty reduction. The indicators for the regulatory framework were CBK regulations and supervision guidelines on MFIs. Data analysis was by the use of linear regression. The research had conceptual gaps since it had different dependent and independent variables from those that this study looked at.

Based on the reviewed literature, the topical study adopted government laws, prudential and non-prudential guidelines as indicators of the regulatory framework in the realm of MFIs.

2.4 Summary of Literature Review and research gaps

Literature review on the various variables; strategic innovation orientation, customer satisfaction, regulatory framework, and firm performance used in the topical study were reviewed. The major findings from the studies were brought out, research gaps identified and application in the current study suggested. This is summarized in table 2.1 below.

Table 2.1: Summary of Research gaps

Thematic area	Author & Year	The focus of the Study	Findings of the Study	Research Gaps	The focus of the current study
Product Innovation orientation	Ayodele and Oginni (2019)	Effect of product innovation on customer satisfaction.	Product innovation had a significant effect on customer satisfaction.	The contextual gap was on the Saudi realm of the research.	The current research was focused on MFIs in Nairobi City County, Kenya and it used product innovation orientation and customer satisfaction as the variables of the study.

Product Innovation Orientation	Kiveu *et al*. (2019)	Innovation impact on firm competitiveness.	The effect of innovation on competitiveness was positive while product innovation had a non-significant effect. Process, market, and organizational innovation had a significant effect but with low and moderate explanatory powers.	The gap in the study was both conceptual and contextual since the significant concept in the study was innovation and not innovation orientation. The research was biased to the manufacturing sector.	The topical study was focused on the realm of MFIs and it used product innovation as a sub construct of strategic innovation orientation.
Product Innovation Orientation	Ibrahim (2016)	Strategic innovation orientation effect on the performance of Safaricom Limited	Product, process, organizational, and market innovations led to the company's competitive advantage. All these influenced the competitive advantage which was measured by costs of product or service delivery.	The context of the study was in telecommunications in of well-established company and thus not generalizable to other sectors.	The current study addressed this gap by being conducted in the MFI sectors.
Product Innovation orientation	Al-Shuaibi *et al*., (2016).	Innovation and competitiveness.	Quality innovation positively and significantly influenced the competitiveness of firms. Innovation positively and significantly influenced performance and	The contextual gap was in the Saudi realm of the study and manufacturing sector.	The current study focused on strategic innovation orientations; products, market, and organizational and their influence on performance in the realm of MFIs.

			competitiveness.		
Product Innovation orientation	Hoe and Mansori (2018).	Product quality effect on customer satisfaction and loyalty.	The effect on customer satisfaction by Product quality was significant and that influenced loyalty.	The contextual gap was in the Malaysian engineering industry realm of the study.	The current study focused on product quality as a product innovation orientation indicator.
Product Innovation Orientation	Theodosiou *et al*. (2012)	Strategic orientations, marketing capabilities and firm performance.	The focus was on the customer, internal/cost, innovation, and competitor orientations.	The study was focused on banks in Greece. Innovation orientation effect on the bank's performance was significant.	Current research centered on MFIs.
Product Innovation Orientation	Ionescu and Ionescu (2015)	Strategic innovation orientation and relationship with organizational performance.	Strategic innovation orientation aspects share a solid relationship with organizational performance.	The study had a contextual gap in that it was conducted in Romania, and the methodological gap was that other diagnostic tests were not conducted.	The current study was on strategic innovation orientation in the realm of MFIs in Nairobi City County, Kenya, which are not at the global level.
Product Innovation Orientation	Gemici and Alpkan, (2015)	Disruptive innovation application in creating a competitive strategy.	Innovative orientation plays a big role in influencing the performance of Turkish air transport industry.	The study was in the realm of the aviation industry, and it used only quantitative data. The data was limited to the domestic market only.	MFI can respond to their rivals in the industry by use of different strategic innovation orientations in coming up with timely innovative responses.

Product Innovation Orientation	Altindag and Zehir, (2012)	Strategic orientations effect on performance.	Performance was positively and significantly influenced by strategic innovation orientation	The contextual gap was on the Turkish and family-owned firms' realm of the study. Conceptual gap since innovation orientation was one of the subsets of strategic orientation. Innovation orientation was conceptualized as having novel products.	The current study focused on strategic innovation orientation as the independent variable. New products were one of the indicators of product innovation orientation.
Product Innovation orientation	Dobni, (2010).	Strategic innovation orientation relationship with a competitive advantage.	Strategic innovation orientation was divided into high and low innovation orientation. Competitive advantage is attributed to innovation orientation.	The contextual gap was that the study was in Canadian businesses. The study did not look into environmental factors moderation. Innovation orientation was based on the degree and not the various elements.	The current study focused on strategic innovation orientation in the realm of MFIs in Nairobi City County, Kenya.
Product Innovation Orientation	Rosenbusch, Brinckmann and Bausch, (2011).	Innovation and performance in SMEs.	The influence of innovation on performance is dependent on the context. Other factors; the age of the firm, innovation type, and cultural context plays a part in the impact of innovation orientation of firms.	The research was based on established SMEs and thus offers a good foundation for MFIs.	The current study was on MFIs in Nairobi City County, Kenya.
Product Innovation Orientation	Salavou, Baltas and Lioukas, (2004).	The concept of innovativeness in manufacturing firms.	The number of new products was used as a measure of product innovation.	Contextual gap since it was conducted in Greece.	The topical study focused on MFIs in Nairobi City County, Kenya.

					A number of new products were used as a measure of product innovation orientation.
Organizational Innovation Orientation	Sime, Lemmie and Gutu (2020)	Determinant of commercial banks financial performance	The number of branches significantly affected the commercial banks' performance.	The study emphasis was the financial measures - ROA and ROE. It was conducted in Ethiopia.	The current study used networking as one of the indicators for organizational innovation orientation.
Organizational Innovation Orientation	Adudu, *et al* (2021).	Business networking and SME performance.	Business networking was established to have a significant effect on the performance of SMEs	The study was in the realm of licensed SMEs	The current research used networking as one of the indicators for organizational innovation orientation.
Organizational Innovation Orientation	Moki *et al*. (2019)	Financial innovation strategy among deposit-taking SACCOs.	Mobile transactions were a measure of financial innovation that was significant.	The study was in the realm of deposit-taking SACCOs.	The current study used mobile transactions as one of the indicators for organizational innovation orientation.
Organizational Innovation Orientation	Terziovski, (2010).	Innovation practice and its performance implications in SMEs.	Innovation strategy and formal structure had a positive and significant influence on performance. Innovation culture and strategy are closely aligned throughout the innovation process, and they are vital	Lack of vigour since the research gathered quantitative data from one respondent in each SME. The context was on SMEs in Australia. This makes its generalization difficult to other sectors and countries.	The research was on influence of strategic innovation orientation on firm performance with strategic innovation orientation as the independent variable among MFIs in Nairobi City County, Kenya.

			drivers to performance, yet they are not used in a strategic and structured manner.		
Organizational innovation orientation	Kibugo (2016).	Influence of financial innovations on performance of MFIs in Nakuru town.	Process innovation significantly influences performance of MFIs. Process design, change in provision of services, cost effectiveness process, delivery process and process automation were indicators of process innovation.	The contextual gap was on the Nakuru town and not on the CBK MFIs.	The study focused on CBK MFIs in Nairobi City County, Kenya. Process innovation was one of the indicators of organizational innovation orientation.
Organizational innovation orientation	Hervas-Olivier, Sempere-Ripoll and Boronat-Moll, (2014).	Process innovation strategy, organizational innovation and performance of SMEs in Spain.	Production process performance is not positively influenced by research and development, but it is improved by synchronizing co-adoption of both organizational and technological innovation.	The contextual gap was on the Spanish realm of the study.	The current study focused on process innovation as an indicator of organizational innovation in the realm of MFIs.
Organizational innovation orientation	Kicova, (2019)	Enterprises process innovations effect on performance of Slovak producing enterprise.	Process innovations significantly influenced performance. The study used process design in operationalizing process innovation.	The study was based on Slovak producing enterprises and thus a contextual gap.	The current study used automation and process design as indicators of organizational innovation orientation.

Organizational Innovation Orientation	Kiende *et al*. (2019).	Effect of strategic innovation orientation on the performance of SMEs owned by women in Kenya.	Organizational innovation was operationalized as new routines, new procedures and new capabilities.	Contextually, the study was in the realm of manufacturing SMEs.	Current study was in realm of MFIs with indicators for organizational innovation orientation being new organisation structure, new routines, new procedures and networking.
Organizational Innovation Orientation	Zaied *et al*. (2015)	Organizational innovation effect on firm performance	Firm performance was not positively influenced by organizational innovation.	Contextually, the study was in the realm of Tunisian companies.	The current study was in the realm of MFIs with organizational innovation orientation as an independent variable.
Organizational Innovation Orientation	Maldonado-Guzmán, Garza-Reyes, Pinzón-Castro and Kumar, (2019)	Innovation capabilities among SMEs in Mexico.	Organizational innovation had positive influence on SME performance. Procedures and organizational structures were indicators of organizational Innovation.	The contextual gap was on the Mexican realm of the study.	The current study was in the realm of MFIs with organizational innovation orientation as an independent variable. Procedures and organizational structures were some of the indicators for organizational innovation orientation.

Organizational Innovation Orientation	Gunday, Ulusoy, Kilic and Alpkan, (2011)	Strategic innovation types effects on firm performance of manufacturing firms in Turkey.	Product, process, market and organizational innovations as indicators of innovative capabilities have an influence on firm performance.	The contextual gap was on the Turkish realm of the study.	The current research focused on product, market and organizational innovations as indicators of innovation orientation in the realm of MFIs in Nairobi City County, Kenya.
Organizational Innovation Orientation	Mata and Woerter (2013).	Internal and external innovation strategies.	Innovation was divided into external and internal innovation.	The context is based in Switzerland.	Organizational innovation orientation in the current study looked at external relations which form part of external relations.
Organizational Innovation Orientation	Bustinza *et al*. (2019)	The role of R&D intensity and collaborative partnerships on product-service innovation and performance.	Collaborative partnerships through concentric strategic partnerships benefit manufacturing firms in a significant way by providing opportunities for downsizing, externalizing risks and sharing knowledge.	The study was based on a cross-sectional study of North America, Europe and Asia firms and this brings about a challenge in generalizing the results to other contexts.	The current study was based on MFIs in Nairobi City County, Kenya. Networking and innovative capabilities help firms enhance performance.
Organizational Innovation Orientation	Wachira and Ondigo (2016)	Technological innovation impact on commercial banks' financial performance in	Technological innovations exhibited positive impacts on performance. The indicators for	The research was based on commercial banks.	Current research was based on the realm of MFIs and used organizational innovation

		Kenya.	technological innovations were customer independence, customer-assisted technology, and customer transparent technology.		orientation as one of the sub-constructs of strategic innovation orientation.
Organizational Innovation Orientation	Junejo *et al*. (2019)	Financial technology influence on customer satisfaction.	Safety reliability and service security had substantial ascendancy on customer satisfaction while ease of use had positive but insignificant influence on customer satisfaction.	The study was contingent on respondents conveniently sampled. Contextually, the study was conducted in Pakistan and in highly established banks.	The current research applied proportionate stratified and simple random sampling technique and thus avoided biasness and it was conducted in the realm of MFIs. Safety reliability, ease of use and service security formed part of the indicators of process innovation under organizational innovation orientation.
Organizational Innovation orientation	Ergun and Kuscu, (2013).	Strategic innovation orientation, market orientation and e-loyalty among Turkish e-commerce customers.	Strategic innovation orientation had positive impacts on e-loyalty.	The study used convenience sampling and thus was not fully representative. This was a methodological gap that needs to be addressed.	The current study used proportionate stratified and simple random sampling technique and thus representative.

Organizational Innovation Orientation	Cherotich *et al*. (2015)	Financial innovation effect on financial performance of commercial banks.	Innovativeness through value of Electronic Fund Transfers (EFT), cheques and Real-Time Gross settlement (RTGS) indicators had a positive and significant influence on financial performance.	The research focused on the financial performance indicators only yet there are non – financial indicators of performance. Contextually, the research was on established commercial banks.	The current study was in the realm of MFIs, it had organizational innovation orientation as a variable and it used both financial and non – financial metrics.
Financial Innovation orientation	Jahan, Ali and Al Asheq (2020)	Determinants of customer satisfaction on internet banking services.	Internet banking services had a significant effect on customer satisfaction.	The study was in the realm of Bangladesh banks.	Internet banking services was one of the indicators for financial innovation orientation.
Financial Innovation Orientation	Odhiambo and Ngaba (2019	E-banking services and performance of commercial banks in Kenya.	Mobile banking, agency banking, internet banking and use of automated cards had a significant effect on the financial performance.	The study focused on the financial performance indicators only yet there are non – financial indicators of performance. Contextually, the research was on focused commercial banks.	Current research was in the realm of MFIs and it used both financial and non – financial indicators of performance. Automation, internet and mobile banking were some of the indicators for organizational innovation orientation.
Financial Innovation orientation	Atakli and Asiedu (2020)	Financial innovation impact on bank depositors in Africa.	Usage of technological processes; ATM, internet, mobile	The study was on established banks.	ATM, internet, mobile banking were the indicators of financial

			banking had a positive but insignificant effect on the amount of bank deposits.		innovation orientation among MFIs.
Financial Innovation orientation	Odhiambo and Ngaba (2019)	E-banking services and performance of commercial banks in Kenya	The impact of e-banking services on the financial performance was significant.	The study was on Kenyan commercial banks. The study was focused on the financial performance indicators only yet there are non-financial indicators of performance.	Both financial and non-financial metrics were used. Agency, Mobile and internet banking and automated cards were some of the adopted indicators for financial performance.
Financial innovation orientation	Kemboi (2018)	Automation effects on performance of commercial banks.	The effect of automation on banks performance was significant. Automation included use of Automated Teller Machines (ATM) and deposit machines in the banks operations.	The research was focused on commercial banks.	The current research used automation and process design as indicators of financial and organizational innovation orientation In the realm of MFIs in Nairobi City County, Kenya.
Financial Innovation orientation	Muchangi, Muathe and Titus (2019)	Performance analysis of debit card services.	Use of automated cards had a significant effect on performance of Deposit-taking SACCOs .	The research was in the realm of deposit taking SACCOs.	The topical study focused on MFIs. Automation was an indicator of financial innovation orientation.

Financial Innovation orientation	Moki *et al*. (2019)	Financial innovation strategy among deposit taking SACCOs	Mobile transactions were a measure of financial innovation that were significant in influencing the output of deposit taking SACCOs.	The research was based on deposit taking SACCOs. There are other indicators of financial innovation orientation.	The study focused on MFIs. Mobile transactions were an indicator of financial innovation orientation.
Financial Innovation orientation	Muigai and Maina (2018)	Influence of credit risk management practices on commercial banks performance.	Performance of commercial banks was significantly influenced by loan appraisal.	Commercial banks were the focus of the research.	Efficient loan appraisal procedures through the use of technology accounts for financial innovation orientation.
Financial Innovation orientation	Haabazoka (2018)	Technological innovation effects on finacial performance of Zambian commercial banks.	Mobile banking and ATMs had a strong and positive relationship while internet banking had a weak relationship with financial performance.	The study was in the realm of commercial banks and focused on financial performance only	ATMs, mobile and internet banking were usedas indicators of financial innovation.
Financial Innovation orientation	Muthinja and Chipeta (2018)	Financial innovation, firm performance and the speeds of adjustment.	ATMs, internet banking, agency banking and mobile banking as indicators of financial innovation orientation.	The study domain was commercial banks.	The study focused on MFIs. Mobile transactions were an indicator of financial innovation orientation.
Financial Innovation orientation	Katula and Kiriinya (2018)	Loan appraisal and financial performance of Deposit Taking SACCOs.	Loan appraisal significantly affected financial performance.	The research was conducted in Embu County and among Deposit Taking SACCOs.	Efficient loan appraisal procedures through the use of technology accounts for financial innovation

					orientation.
Financial Innovation orientation	Ahmed and Malik (2015)	Credit risk management and loan performance.	Loan performance was significantly affected by loan appraisal.	The research was conducted on micro finance banks of Pakistan. The study focused on financial measures of performance only	Efficient loan appraisal procedures through the use of technology accounts for financial innovation orientation.
Financial Innovation orientation	Wachira and Ondigo (2016)	Technological innovation effect on financial performance.	Technological innovations had effect on performance.	The study realm was that of commercial banks in Kenya.	Technological innovations was adopted as financial innovation orientation indicators.
Financial Innovation orientation	Cherotich *et al*. (2015)	Financial innovation impact on financial performance of banks.	EFT, cheques and RTGS indicators positively and significantly influenced the financial performance.	Focus was on financial performance indicators only.	EFT, cheques and RTGS indicators were adopted as financial innovation orientation indicators.
Financial Innovation orientation	Ngumi (2014)	Banking innovations within commercial banks.	Automation, mobile banking, internet banking, debit and credit cards and electronic funds transfer as some of the financial innovations.	The study used financial perspective of performance only. The study was in the realm of commercial banks which are more established.	Automation, mobile banking, internet banking, debit and credit cards and electronic funds transfer were adopted as financial innovation orientation indicators.

Financial Innovation orientation	Muriungi (2014)	Financial innovation on financial performance of deposit taking micro-finance.	Product, process, market and technological innovations significantly affected financial performance.	Product, process, market and technological innovations formed part of financial innovations.	The current study used financial innovation orientation as a distinct variable.
Financial Innovation orientation	Florin (2014)	Credit Appraisal Procedure of SME Loan.	Loan appraisal efficiency as a process improves the firm reputation and hence it's improved performance.	The study was conducted among private commercial banks in Bangladesh	Loan appraisal efficiency was an indicator of financial innovation orientation.
Financial Innovation orientation	Malik (2014)	Technological innovations on Indian banks.	Automated teller machine, debit card, credit card, National Electronic Funds Transfer (NEFT), Real Time Gross Settlement (RTGS).	The study was conducted on Indian banks.	Automated teller machine, debit card, credit card, National Electronic Funds Transfer (NEFT), Real Time Gross Settlement (RTGS) was adopted as financial innovation orientation indicators.
Financial Innovation orientation	Ergun and Kuscu, (2013).	Innovation orientation, market orientation and e-loyalty among Turkish e-commerce customers.	E-commerce is a form of financial innovation that can be measured through e-loyalty.	The study used convenience sampling and thus was not fully representative.	E-commerce was adopted as financial innovation orientation indicator.

Financial Innovation orientation	Abdullai and Micheni, (2018)	Internet banking impact on operational performance.	Internet banking is a form of financial innovation that can be measured through e-loyalty.	The study was conducted in the realm of commercial banks which are better established.	Internet banking was adopted as financial innovation orientation indicator.
Financial Innovation orientation	Ngure *et al*. (2017)	Impact of Product innovations and financial performance of SACCOs in Kirinyaga County.	Product innovations significantly influenced financial performance	The research was focused on SACCOs which are better established.	Financial innovation orientation. S was measured by New deposit account, credit card, debit card and electronic funds transfer
Financial Innovation orientation	Ngari and Muiruri (2014)	Impacts of financial innovations on financial performance.	Credit cards, mobile, internet and agency banking had significant effect on financial performance.	The study was conducted on commercial banks.	Credit cards, mobile, internet and agency banking were adopted as financial innovation orientation.
Financial Innovation orientation	Kahandawa and Wijayanayake (2014)	Effect of mobile banking services on customer satisfaction.	Effect of mobile banking services on customer satisfaction was significant effect.	The study was focused on Sri Lankan state commercial banks. The dependent variable was customer satisfaction.	The current study focused on MFIs in Nairobi City County, Kenya and used mobile banking services as indicators of financial innovation orientation.
Market Innovation Orientation	Zhang and Duan (2010).	Influence of market and innovation orientation on novel product performance among Chinese manufacturing firms.	Market orientation and innovation orientation had a significant and positive impact, while innovation orientation and technological turbulence had	The study had a contextual gap since it was carried out in Chinese and manufacturing firms.	The topical study study was based on MFIs and it used market innovation orientation as a sub construct.

			positive moderating effect on market orientation-new product performance relationship.		
Market Innovation Orientation	Maldonado-Guzmán, Garza-Reyes, Pinzón-Castro and Kumar, (2019)	Innovation capabilities among SMEs in Mexico	Product, process, marketing and management had positive and significant effect on the performance of SMEs.	The contextual gap was on the Mexican and SMEs realm of the study.	The current study focused on market innovation orientation in the realm of MFIs in Nairobi City County, Kenya.
Market Innovation Orientation	Rajapathirana and Hui (2018)	Innovation capability and firm performance.	Market innovation was operationalized as new media or technique, new sales channels and new delivery channels.	The contextual gap was on the Sri Lankan insurance firms realm of the study.	The current study adopted some of these indicators for market innovation orientation.
Market Innovation Orientation	Rosli and Sidek (2013)	Effect of innovation on the performance of SMEs.	Product innovation had greater influence than market and process innovation.	Market innovation was operationalized as the application of online transactions, innovative marketing and promotion.	The current study adopted some of these indicators.
Market Innovation Orientation	Zhang and Duan (2010)	Market orientation and innovation orientation in new product performance	Market orientation and innovation orientation had a significant and positive impact, while innovation orientation and technological turbulence had a positive moderating effect on market orientation-new	The contextual gap was on the Chinese and manufacturing firms realm of the study.	The current study focused on market innovation orientation in the realm of MFIs in Nairobi City County, Kenya.

			product performance relationship.		
Market Innovation Orientation	Gupta *et al*. (2016)	Marketing innovation and relationship with competitiveness.	Marketing innovation had both direct and indirect relationship with competitiveness.	The contextual gap was on the Indian and information technology firms realm of the study. The study used marketing innovation same as market innovation.	The current study focused on market innovation orientation in the realm of MFIs in Nairobi City County, Kenya.
Market Innovation Orientation	Gemici and Alpkan, (2015).	Performance of Turkish Air transport industry.	Turkish airline, in response to the competition, came up with two innovative conflicting positions at the same time that enabled it to operate in the domestic and global market while maintaining its focus on the customers.	The research focus was limited to the Turkish aviation industry and thus not easy to generalize in other industries or MFIs.	The current study was based on MFIs in Nairobi City County, Kenya and used new media or technique, sales channels and delivery channels market innovation orientation.
Customer Satisfaction	Kanten and Darma, (2017)	Consumer behaviour, marketing strategy, customer satisfaction, and business performance.	Effect of customer satisfaction had a on business performance was positive but insignificant.	The research focused on hotels in Indonesia. Customer satisfaction was used as the antecedent of business performance. A combined purposive and accidental sampling method that is weak due to biasness was used.	The current research focused on MFIs in Nairobi City County, Kenya and used customer satisfaction as the mediator of the relationship. The current study conducted a proportionate stratified and simple random sampling.
Customer	Belás and	Customer	Customer satisfaction	The research was based	The topical study

Satisfaction	Gabčová, (2016)	satisfaction, loyalty and financial performance.	led to loyalty that was associated with firm financial performance.	on Czech commercial banks. The antecedent of financial performance was customer satisfaction.	used customer satisfaction as the mediator of the relationship.
Customer Satisfaction	Ali and Raza (2017)	Service quality perception and customer satisfaction.	Service quality perception had significant effect on customer satisfaction. Customer satisfaction was measured as an index.	Customer satisfaction was used as a dependent variable.	The topical study used customer satisfaction as the mediator of the relationship and adopt customer satisfaction index as the indicator for customer satisfaction
Customer Satisfaction	Murugiah and Akgam (2015)	Customer satisfaction in the banking sector.	Customer satisfaction was measured as an index. The effect of customer loyalty and service quality was positive and significant on customer satisfaction while security had a negative and significant influence on customer satisfaction.	The research was focused on banking sector in Libya.	The topical research was based on MFIs in Nairobi City County, Kenya and used customer satisfaction as the mediator of the relationship. The current study adopted customer satisfaction index as the indicator for customer satisfaction.
Customer Satisfaction	Firdous and Farooqi (2017)	Impact of internet banking service quality on customer satisfaction.	The effect on customer satisfaction among banks in New Delhi by internet	Research was biased on banks in New Delhi.	The current study was based on MFIs in Nairobi City County, Kenya and

			banking service quality was positive and significant.		used customer satisfaction as the mediator of the relationship.
Customer Satisfaction	Eklof, Podkorytova and Malova (2018)	Linking customer satisfaction with financial performance.	The effect of customer satisfaction on Scandinavian banks financial performance was significant.	Scandinavian banks were the sector of focus.	The current study was based on MFIs in Nairobi City County, Kenya and used customer satisfaction as the mediator of the relationship.
Customer Satisfaction	Ayodele and Oginni (2019)	Effect of product innovation on customer satisfaction.	Effect on customer satisfaction by product innovation was significant.	The study was focused on Nigerian service market.	The current study used customer satisfaction as the mediator of the relationship.
Customer Satisfaction	Ngo and Nguyen (2016)	Service quality, customer satisfaction and customer loyalty.	Customer satisfaction mediated the association between service quality and customer loyalty.	The 261 respondents were conveniently sampled.	The current study used customer satisfaction as the mediator of the relationship.
Customer Satisfaction	Kahandawa and Wijayanayake (2014)	Effect of mobile banking services on customer satisfaction.	Mobile banking services had a meaningful effect on customer satisfaction.	The study was focused on Sri Lankan state commercial banks. Customer satisfaction was used as a dependent variable.	The current research used customer satisfaction as the mediator of the relationship.
Customer Satisfaction	Xie, Jia, Meng and Li (2017)	Corporate social responsibility, customer satisfaction, and financial performance.	Customer satisfaction fully mediated the association between corporate social responsibility and financial performance.	Customer satisfaction was measured using customer satisfaction index.	The current study used customer satisfaction as the mediator of the relationship.

Customer Satisfaction	Galbreath and Shum (2012)	Mediating effect of customer satisfaction between corporate social responsibility and financial performance.	Customer satisfaction mediated the relationship.	The research was among Australian business firms.	The current study was based on MFIs in Nairobi City County, Kenya and used customer satisfaction as the mediator of the relationship.
Customer Satisfaction	Shanka (2012)	Service quality, customer satisfaction and loyalty in Ethiopian banking sector	Customer satisfaction led to loyalty that was associated with firm financial performance.	The research was biased on Ethiopian commercial banks.	The current research was based on MFIs in Nairobi City County, Kenya and used customer satisfaction as the mediator of the relationship.
Regulatory framework	Oketch *et al*. (2020)	Top Management Team psychological characteristics and organizational performance	The legal status moderated the kind and type of relationship with performance.	Contextual gap exists because the study was based on independent regulatory agencies in Kenya.	Current study used regulatory framework as a moderating variable with Acts of parliaments, and prudential and non – prudential guidelines as indicators in the realm of MFIs in Nairobi city County, Kenya.
Regulatory framework	Ndegwa *et al*. (2020).	The relationship between resource isolating mechanisms and sustainable competitive advantage.	The moderating effect of external environment on the relationship was not significant.	Contextual gap exists because the research was focused on commercial banks in Kenya. Insignificant effect of external environment.	Current study used regulatory framework as a moderating variable.

Regulatory framework	Mugo, Muathe and Waithaka (2017).	Government policies and performance of deposit-taking SACCOs.	The association between mobile technology services and performance of deposit-taking SACCOs was significantly moderated by government policies.	Contextual gap exists because the study was based on deposit-taking SACCOs.	Current study used regulatory framework as a moderating variable.
Regulatory framework	Musau *et al*. (2017)	Commercial banks' financial inclusion and stability.	The operating environment significantly moderated the nexus between financial inclusion and stability.	The study was on the commercial banks realm hence a contextual gap.	The current study was in the realm of MFIs.
Regulatory framework	Mutinda (2016)	Prudential regulatory framework impact on financial performance.	The effect of prudential regulatory frameworkon the performance of deposit taking SACCOs was significant.	Contextual gap exists because the study was based deposit taking SACCOs in Kenya. There are other indicators of regulatory framework apart from prudential regulatory.	The current study was in the realm of MFIs. The current study adopted prudential regulatory framework as one of the indicators of the regulatory framework.
Regulatory framework	Harash, Al-Timimi, Alsaad, Al-Badran and Ahmed, (2014).	Contingency factors and performance of research and development among universities in higher education in Iraq.	Government policy has a moderating effect on the association between contingency factors and performance.	The study was based in Iraq hence the contextual gap.	Impact of regulatory framework in enabling MFIs performance.
Regulatory framework	Bashir *et al*. (2012).	Impact of service quality and government	Government role was insignificant.	The study was in Mombasa County and among two MFIs only.	Government role was used as an indicator of the

		function on customer satisfaction.			regulatory framework. Customer satisfaction was an indicator of performance in the current study.
Regulatory framework	Allaire *et al*. (2009).	Success of Moroccan MFIs through institutional analysis.	The existence of legal framework through micro finance laws and regulations in Morocco has helped in fostering the growth of MFIs.	The use of small sample size was a challenge. The contextual challenge was that the research was in Morocco and North Africa countries which have different political systems and stability. The MFIs were also not in the finance sector.	The legal framework provides the enabling environment for the growth of MFIs.
Regulatory framework	Gemici and Alpkan, (2015).	Disruptive innovation application in creating a competitive strategy.	Deregulation in the industry leads to new entrants and new competition.	Only policies that encouraged new entrants were considered.	MFIs need to plan for deregulation as well in the industry.
Regulatory framework	Okibo and Makanga (2014).	Microfinance effect on poverty reduction.	The study used regulatory environment as the intervening variable of the relation between credit facilities and poverty reduction.	Conceptual gap because of different dependent and independent variables.	The current study used regulations and supervision guidelines as part of the business regulatory indicators.

Firm Performance	Oketch *et al*. (2020)	Top Management Team's psychological characteristics and organizational performance.	Effectiveness, efficiency, relevance and financial viability were indicators of firm performance amongst independent state agencies.	Effectiveness, efficiency, relevance and financial viability were used as indicators of firm performance.	The topical study used both financial and non –financial perspectives of measuring performance in the realm of MFIs.
Firm Performance	Mutuku, Muathe and James (2019).	E-commerce capability and performance of commercial banks	Competitive advantage had partial mediating effect on the relationship between e-commerce capability and performance of commercial banks.	ROA was the indicator for financial performance. Focused on financial perspective only.	The current study used both financial and non –financial perspectives of measuring performance in the realm of MFIs.
Firm Performance	Wanjiru *et al*. (2019)	Effect of corporate strategies on manufacturing firms performance.	External operating environment significantly influenced performance.	The research used financial and non - financial perspectives; ROA, net profit, sales growth and customer retention, to measure performance.	The topical study used both financial and non –financial perspectives of measuring performance in the realm of MFIs.
Firm Performance	Kilika *et al*. (2019)	Financial determinants of deposit taking MFIs in Kenya.	PAR, ROE, ROA and cost per client as measures of financial performance.	Focused on financial perspective only. The realm was on deposit taking MFIs in Kenya.	The topical study used financial and non –financial perspectives of measuring performance in the realm of MFIs.
Firm Performance	Mbogo (2019)	Determinants of strategy implementation and financial performance of Kenyan commercial	ROA and ROE as metrics of financial performance.	Focused on financial perspective only. The realm was on Kenya's commercial banks.	The current study used both financial and non –financial perspectives of measuring performance in the

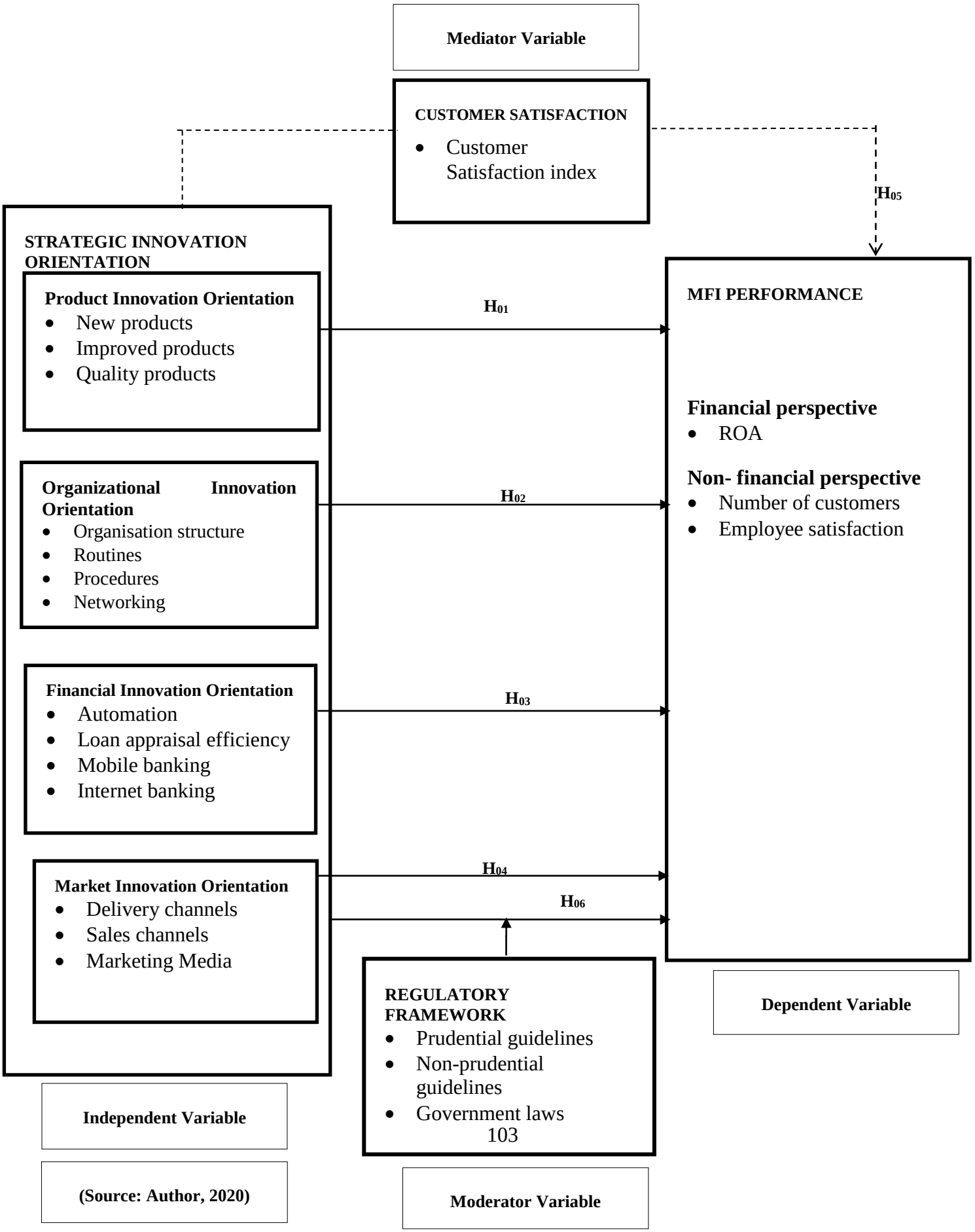
		banks.			realm of MFIs.
Firm Performance	Githaiga *et al*. (2019)	Diversification and firm performance of Kenyan commercial banks between 2008 and 2017.	ROA as the only measure of firm performance among banks.	Focused on financial perspective only. The study was on commercial banks.	The current study used both financial and non –financial perspectives of measuring performance in the realm of MFIs.
Firm Performance	Mugo *et al*. (2018)	Mobile communication services effect on performance of SACCOs in Kenya.	ROA, liquidity ratio, efficiency and membership as indicators of performance.	The study was in the realm of SACCOs. Focused on both financial and non –financial perspectives. Sampling was purposive and thus likelihood of biasness.	The topical study used both financial and non –financial perspectives of measuring performance in the realm of MFIs.
Firm Performance	Muchangi, Muathe and Titus (2019)	Deposit –taking SACCOs' in Kenya financial performance.	The measure of financial performance was ROA.	The study was in the realm of Deposit –taking SACCOs. ROA as the only measure of financial performance.	The current study used both financial and non –financial perspectives of measuring performance in the realm of MFIs.
Firm Performance	Lelgo and Obwogi (2018)	Financial risk and Kenyan MFIs performance.	ROA as the only measure of firm performance among banks.	There are other measures of performance among MFIs. The research was based on commercial banks.	The current study used non-financial perspectives of measuring MFIs performance.
Firm Performance	Kibugo (2016)	Financial innovations impact on performance of MFIs in Nakuru town.	ROA, ROI, ROE loan performance and profitability as measures of performance.	There are other measures of performance among MFIs. The study was on Nakuru MFIs.	The current study used non- financial perspectives of measuring performance in the realm of MFIs.

Firm Performance	Dissanayake, (2012)	Determinants of microfinance profitability; Sri Lankan MFIs.	ROE, ROA, profit margin ratio were used as measures of MFIs profitability.	There are other measures of performance among MFIs.	The current study used non- financial perspectives of measuring performance in the realm of MFIs.
Firm Performance	Wachira and Ondigo (2016)	Technological innovation effect on commercial banks performance.	The study used only profitability; financial perspective as the only measure.	There are other measures of performance among MFIs.	The current study used non- financial perspectives of measuring performance in the realm of MFIs.
Firm Performance	Omran *et al*. (2019)	Non-financial performance measures disclosure, quality strategy, and organizational financial performance.	The research used Non-financial performance measures which had link to organizational financial performance.	Non-financial performance metrics used only.	Current study used number of customers, and employee satisfaction as non-financial perspectives in measuring performance in the realm of MFIs.

Source: Researcher (2020).

2.5 Conceptual Framework

The schematization of the relationships of the current study main variables was represented in the conceptual framework. The variables entailstrategic innovation orientation, customer satisfaction, regulatory framework and MFI performance.


Mediator Variable
CUSTOMER SATISFACTION
Customer Satisfaction index
H05
STRATEGIC INNOVATION ORIENTATION
Product Innovation Orientation
New products
Improved products
Quality products
H01
MFI PERFORMANCE
Financial perspective
ROA
Non- financial perspective
Number of customers
Employee satisfaction
Organizational Innovation Orientation
Organisation structure
Routines
Procedures
Networking
H02
Financial Innovation Orientation
Automation
Loan appraisal efficiency
Mobile banking
Internet banking
H03
Market Innovation Orientation
Delivery channels
Sales channels
Marketing Media
H04
H06
REGULATORY FRAMEWORK
Prudential guidelines
Non-prudential guidelines
Government laws
Dependent Variable
Independent Variable
(Source: Author, 2020)
Moderator Variable

The study hypothesized that strategic innovation orientation affects the performance of MFIs. There are four sub capabilities of strategic innovation orientation; product innovation orientation, organizational innovation orientation, financial innovation orientation, and market innovation orientation. These are the explanatory variables. Product innovation orientation has been conceptualized as new products, improved products, and quality products.

Financial innovation orientation has been conceptualized as mobile banking, agency banking, internet banking, loan appraisal efficiency, and automated cards. Routines, procedures, networking, and organization structure have been conceptualized as organizational innovation orientation. New media, sales channels, and delivery channels have been conceptualized as indicators of market innovation orientation. The current study adopted these indicators for the various strategic innovation orientations.

MFI performance is the outcome variable measured by both financial perspective aspect; ROA and non-financial perspective aspects; employee satisfaction and the number of customers. Customer satisfaction; customer satisfaction index, was hypothesized as the mediating variable and regulatory framework; prudential, non-prudential, and government laws, as the moderating variable.

The study hypothesized that strategic innovation orientation affects the performance of MFIs in Nairobi City County, Kenya. There are four sub capabilities of strategic innovation orientation; product innovation orientation, organizational innovation orientation, financial innovation orientation, and market innovation orientation. These are the explanatory variables. Product innovation orientation has been conceptualized as new products, improved products, and quality products.

Financial innovation orientation has been conceptualized as mobile banking, agency banking, internet banking, loan appraisal efficiency, and automated cards. Routines, procedures, networking, and organization structure have been conceptualized as organizational innovation orientation. New media, sales channels, and delivery channels have been conceptualized as indicators of market innovation orientation. The current study adopted these indicators for the various strategic innovation orientations.

MFI performance is the outcome variable measured by both financial perspective aspect; ROA and non-financial perspective aspects; employee satisfaction and the number of customers. Customer satisfaction; customer satisfaction index, was hypothesized as the mediating variable and regulatory framework; prudential, non-prudential, and government laws, as the moderating variable. Hence the study derived the following hypotheses based on the four sub capabilities of strategic innovation orientation and the two perspectives of MFI performance;

(a) Product innovation orientation and performance of MFIs

$H_{01\ (a)}$: Product innovation orientation has no significant effect on the financial performance of MFIs in Nairobi City County, Kenya.

$H_{01(b)}$: Product innovation orientation has no significant effect on the non-financial performance of MFIs in Nairobi City County, Kenya.

(b) Organizational innovation orientation and performance of MFIs

$H_{02\ (a)}$: Organizational innovation orientation has no significant effect on the financial performance of MFIs in Nairobi City County, Kenya.

$H_{02(b)}$: Organizational innovation orientation has no significant effect on the non-financial performance of MFIs in Nairobi City County, Kenya.

(c) Financial innovation orientation and performance of MFIs

$H_{03(a)}$: Financial innovation orientation has no significant effect on the financial performance of MFIs in Nairobi City County, Kenya.

$H_{03(b)}$: Financial innovation orientation has no significant effect on the non-financial performance of MFIs in Nairobi City County, Kenya.

(d) Market innovation orientation and performance of MFIs

$H_{04(a)}$: Market innovation orientation has no significant effect on the financial performance of MFIs in Nairobi City County, Kenya.

$H_{04(b)}$: Market innovation orientation has no significant effect on the non-financial performance of MFIs in Nairobi City County, Kenya.

(e) Mediation effect of customer satisfaction

H_{05a}: Customer satisfaction has no significant mediating effect on the relationship between strategic innovation orientation and financial performance of MFIs in Nairobi City County, Kenya.

H_{05b}: Customer satisfaction has no significant mediating effect on the relationship between strategic innovation orientation and non-financial performance of MFIs in Nairobi City County, Kenya.

(f) Moderation effect of Regulatory Framework

H_{06a}: Regulatory framework has no significant moderating effect on the relationship between strategic innovation orientation and financial performance of MFIs in Nairobi City County, Kenya.

H_{06b}: Regulatory framework has no significant moderating effect on the relationship between strategic innovation orientation and non –financial performance of MFIs in Nairobi City County, Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research philosophy and design, empirical models, target population and procedure for sampling. Further, it presents the data gathering procedure coupled with types of equipment implored, test instruments' accuracy and integrity, interpretation of data, diagnostic tests, and presentation of the analyzed data. It highlights ethical considerations.

3.2 Research Philosophy

The study adopted positivism philosophy as it aimed at establishing the relationship and strength between various variables in the study. The study was deductive as it tested the hypotheses (Mugenda & Mugenda, 2003; Furrer *et al*., 2008; Mack, 2010; Scotland, 2012; Muchemi, 2013). Positivism posits that the researcher remains independent, impartial, consistent, and objective in the research's conduct (Saunders, *et al*.,2012). This study's basis was facts, quantitative techniques, and empirical statistics resulting in the acquisition of helpful knowledge. The study adopted positivism philosophy since it assessed strategic innovation orientation and how it influences the performance of MFIs in Nairobi City County, Kenya through testing several hypotheses.

3.3 Research Design

Kothari (2004) posited that research design expounds on the framework used to solve the study under investigation. Saunders *et al*. (2012) categorized research design into; descriptive and explanatory design. Descriptive research design which helps the researcher identify and describe a research problem's actual characteristics in-depth without manipulation of research variables. Explanatory design that helps in establishing a causal relationship between variables and exploratory research design which deals with a new problem that has not been fully defined yet.

Based on the hypotheses, the research used both descriptive and explanatory research design as reflected from recommendations by Niglas (2009), Creswell (2009), Sekeran and Bougie (2009), Babbie (2011), and Saunders *et al*.(2012). Other studies taht have used the same design include Mwirigi *et al*.(2018) and Wanjiru *et al*. (2019). Adoption of two research desighns helped in reducing likelyhood of conducting type I and type II errors.

3.4 Empirical Model

Performance, the dependent variable of the research, was computed on a continuous scale. For that reason, a linear multiple regression model was used in determining the explanatory power of individual explanatory variables (Field, 2009). The interrelation existing between predictor variables (strategic innovation orientation), performance (experimental variable), moderator variable (regulatory environment) and customer satisfaction (mediating variable) were tested. The conduct of the research was by use of a multiple regression model because the dependent variable was on a continuous scale and

the researcher wanted to establish the relation of the variables and the direction as well as strength of relationships. To test the study's significance hypotheses, the following direct relationship regression models 3.1a and 3.1b were used. Model 3.1a was used for financial performance; ROA, while model 3.1b was used for non-financial performance; the number of customers and employee satisfaction. These two different equations are used to measure the significance on financial and non-financial performance separately.

$$\textbf{Financial Performance} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \quad \textbf{.....3.1a}$$

$$\textbf{Non-Financial Performance} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \quad \textbf{.....3.1b}$$

Where;

Y =MFI performance composite index (Calculated using harmonic mean formula)

$\mathbf{X_1}$= Product Innovation Orientation

$\mathbf{X_2}$ = Organizational Innovation Orientation

$\mathbf{X_3}$ = Financial Innovation Orientation

$\mathbf{X_4}$ = Market Innovation Orientation

$\boldsymbol{\beta_0}$= Constant or intercept

$\boldsymbol{\beta_i}$= Beta Coefficient for relevant variables

$\boldsymbol{\varepsilon}$= Error Term (residual or disturbance factor or values not captured in within the regression model)

3.4.1 Generating Variable Composite indices

Composite indices are required in testing hypotheses. They are computed to remodel categorical data on the study variables gotten from the Likert scale. The harmonic mean

formula was conducted to get the indices (Gupta, 2008). The formula below was used to get the harmonic mean value;

$$C_i = \sum_{i=1}^{N} \left(\left(\frac{n}{\sum_{i=1}^{n} \frac{1}{x_i}} \right) W_i \right)$$

Where,

Ci = Composite index for variable i (Strategic innovation orientation, customer satisfaction, regulatory framework and performance).

N= Total number of components that comprised the specific variable.

n= Total number of respondents who responded to the respective section of the questionnaire.

x_i = Percentage mean score for each component for each MFI, computed as a ratio of the actual score to the maximum possible score on the statements for each variable.

Wi = The weight of the mean score for each variable for each MFI calculated as the ratio of the mean score for each variable to the sum of all the mean scores.

3.4.2 Test of Mediation

The hypothesis of customer satisfaction mediating the nexus between strategic innovation orientation and performance; financial and non-financial of microfinance institutions was based on the test of mediation. Mediation can be total, partial, or no mediation at all. The

exogenous variable significantly influences both the mediating variable and endogenous variable. The influence of the exogenous variable is reduced whenever the mediating variable is included in the calculation. Research by Oketch *et al*. (2020) used Baron and Kenny steps for the test of mediation. Baron and Kenny (1986) test of mediation steps was as follows;

For financial performance;

$$\mathbf{FP = \beta_0 + \beta_5 X_5 + \varepsilon} \quad \textbf{3.2a}$$

$$\mathbf{M = \beta_0 + \beta_6 X_5 + \varepsilon} \quad \textbf{3.3a}$$

$$\mathbf{FP = \beta_0 + \beta_7 X_6 + \varepsilon} \quad \textbf{3.4a}$$

$$\mathbf{FP = \beta_0 + \beta_8 X_5 + \beta_9 X_6 + \varepsilon} \quad \textbf{3.5a}$$

For non-financial performance;

$$\mathbf{Non\text{-}FP = \beta_0 + \beta_5 X_5 + \varepsilon} \quad \textbf{3.2b}$$

$$\mathbf{M = \beta_0 + \beta_6 X_5 + \varepsilon} \quad \textbf{3.3b}$$

$$\mathbf{Non\text{-}FP = \beta_0 + \beta_7 X_6 + \varepsilon} \quad \textbf{3.4b}$$

$$\mathbf{Non\text{-}FP = \beta_0 + \beta_8 X_5 + \beta_9 X_6 + \varepsilon} \quad \textbf{3.5b}$$

Where;

FP =Financial Performance

Non-FP=Non- Financial Performance

$\mathbf{X_5}$= Strategic Innovation Orientation

M= Mediating variable

$\mathbf{X_6}$= Mediating variable (customer satisfaction)

$\mathbf{\beta_o}$= Constant or intercept

$\mathbf{\beta_i}$= Beta Coefficient for the appropriate variables

ε= Error Term (residual or disturbance factor or values not captured in within the regression model)

The four-step approach for testing the mediation effect is as illustrated below:

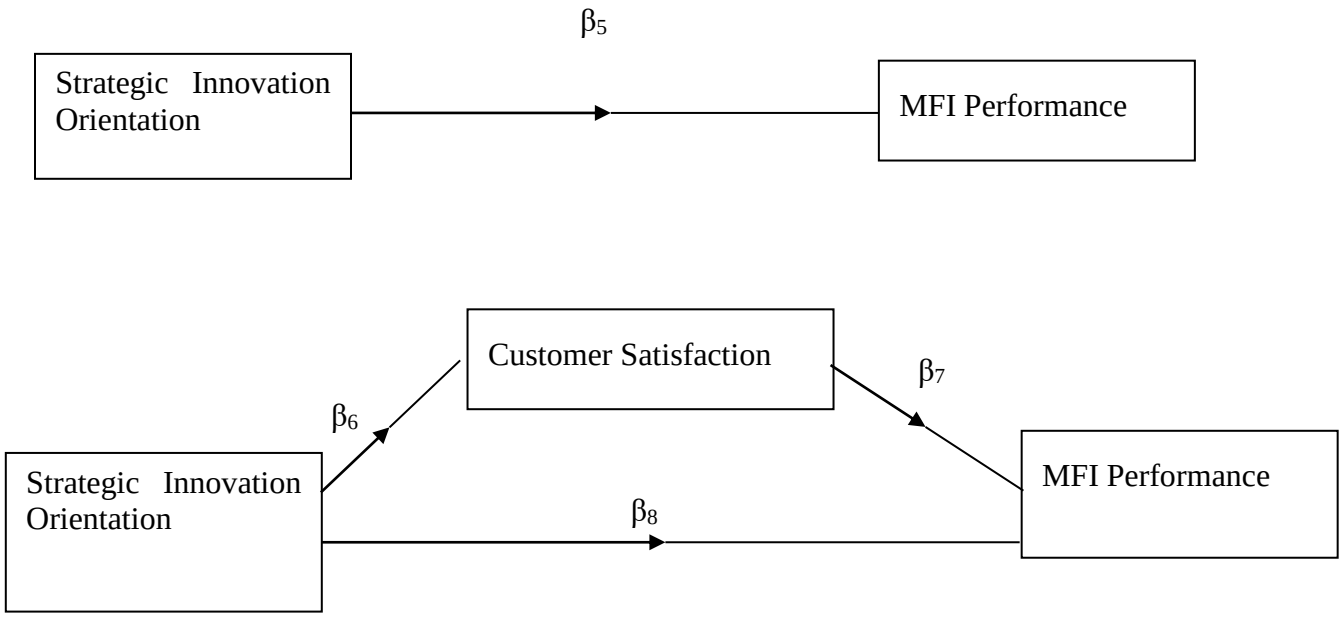


Figure 3.1 Mediation Model

(Source: Researcher, 2021)

Table 3.1 from Baron and Kenny (1986) was consulted on the decision on existing intervention.

Table 3.1 Decision Criteria for Mediation

	Outcomes	**Conclusions**
1.	If β_5 is significant If β_6 is significant If β_7 is not significant and β_8 is significant	Total Mediation
2.	If β_5 is significant If β_6 is significant If β_7 is significant but less than β_5 and β_6 is significant	Partial Mediation
3.	If β_5 is significant If β_6 is not significant If β_7 is significant and equal to β_5 and β_8 is not significant	No Mediation

Source: Baron and Kenny (1986)

3.4.3 Test of Moderation

The investigation of the moderating effect of the regulatory framework was one of the objectives of the study. Regulatory framework as a moderator variable affected the strength and/or direction of the interconnection between a indepedent and depedent variable. The moderation effect happens when one variable's effects rely on the other variable's level when they interact during analysis (Keppel & Zedeck 1989; Fairchild & Mackinnon, 2008).

Baron and Kenny (1986) two-step approach was applied. This approach involves a statistical determination of whether the interaction term's coefficient is zero or not. Figure 3.2 was set up as the base model to evaluate if a significant link exists between the explanatory variable (strategic innovation orientation) and the depedent variable (MFI performance). Model 3.6 facilitated estimating the outcome variable (MFI performance) after introducing the moderating variable (Regulatory framework).

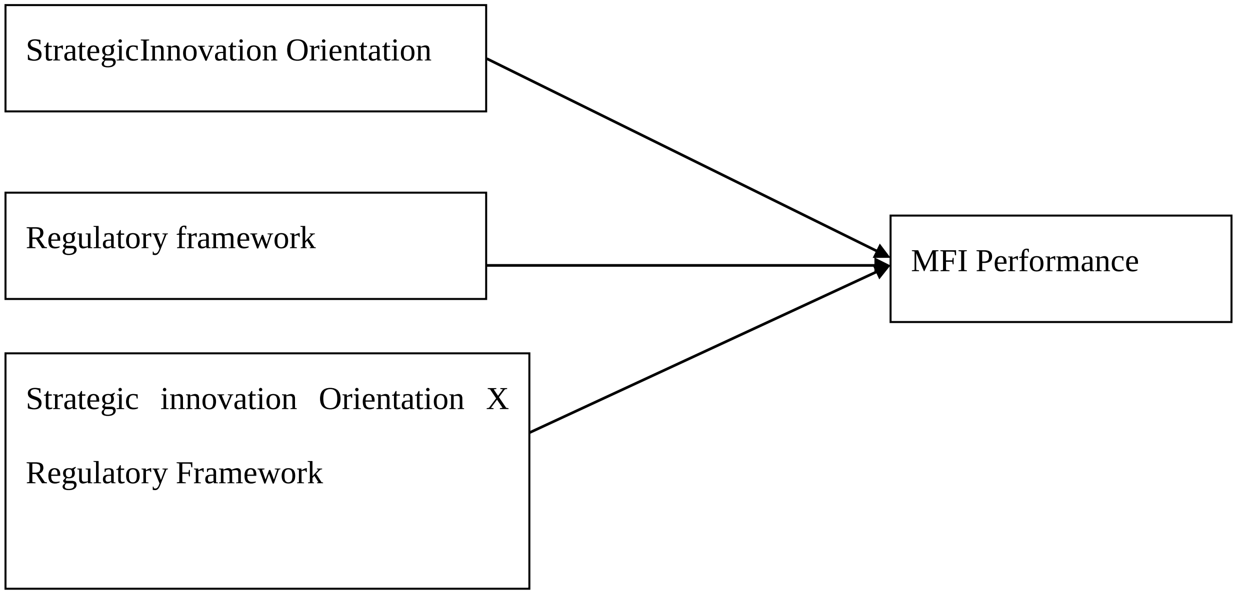


Figure 3.2 Moderation Model

(Source: Researcher, 2021)

Financial Performance = $\beta_0 + \beta_{10} X_5 + \beta_{11} X_7 + \varepsilon$……..**3.5a**

Financial Performance = $\beta_0 + \beta_{12} X_5 + \beta_{13} X_7 + \beta_{14} X_5 * X_7 + \varepsilon$……......................**3.5b**

Non-Financial Performance = $\beta_0 + \beta_{10} X_5 + \beta_{11} X_7 + \varepsilon$……..................................**3.6a**

Non-Financial Performance = $\beta_0 + \beta_{12} X_5 + \beta_{13} X_7 + \beta_{14} X_5 * X_7 + \varepsilon$…….............**3.6b**

Where;

Financial Performance =MFI performance (ROA)

Non-Financial Performance =MFI performance (number of customers and employee satisfaction)

$\mathbf{X_5}$= Strategic Innovation Orientation, $\mathbf{X_7}$ = Regulatory framework

β_o= Constant or intercept

β_i= Beta Coefficient for the relevant variables

ε= Error Term (residual or disturbance factor or values not captured in within the regression model)

Model 3.6 gives the direction on the relevance of the interaction term. The criteria decision for moderation as posited by Baron and Kenny (1986) was used as indicated in table 3.2.

Table 3.2 Summary of Moderation Decision

	Outcomes	**Remarks**
1.	If β_{10} is not significant	No overall effect to moderate
2.	If β_{10} is significant If β_{11} is not significant	Regulatory framework is an explanatory variable
3.	If β_{12} is significant If β_{13} is significant If β_{14} is significant	Regulatory framework has a moderating effect * β_{14} yields the strength and direction of the moderating effect

Source: Baron and Kenny (1986)

3.5 Target Population

The 13 MFIs had a total of 1740 employees based on the CBK Annual Report, (2018) who formed the target population of this study. The MFIs have a common observable characteristic in that they tender their services to the lower cadre people in society and are thus relevant to the current study, as Zikmund (2003) posited. The MFIs are divided into large, medium, and small peer groups based on market share. Large MFI has a market share of 5% and above, medium MFI has a market share between 1% and 5%, while a small MFI has a market share of less than 1% (CBK, 2018) as indicated in Table 3.3.

Table 3.3 List of licensed MFIs in Nairobi City County, Kenya

S.No	MFI	Classification	Frequency	Percentage
1.	Kenya Women Finance Trust (KWFT) Micro Finance Bank PLC	Large	3	23%
2.	Rafiki Micro Finance Bank Limited	Large		
3.	Faulu Kenya Micro Finance Bank Limited	Large		
4.	Small and Micro Enterprise Programme (SMEP) Micro Finance Bank Ltd	Medium	3	23%
5.	Caritas Micro Finance Bank Limited	Medium		
6.	Sumac Micro Finance Bank Limited	Medium		
7.	Century Micro Finance Bank Limited	Small	7	54%
8.	U&I Micro Finance Bank Limited	Small		
9.	Daraja Micro Finance Bank Limited	Small		
10.	Maisha Micro Finance Bank Limited	Small		
11.	Key Micro Finance Bank Limited	Small		
12.	Choice Micro Finance Bank Limited	Small		
13.	UWEZO Micro Finance Bank Limited	Small		
TOTAL			13	100%

(Source: CBK Report 2018)

The 13 MFIs are as shown in Table 3.3 above with large peer MFIs comprising 23%, medium peer MFIs comprising 23% and small peer MFIs comprising 54%. There are more MFIs under small peer classification compared to the large and medium peer classifications.

3.6 Sampling Design and Procedure

The13 MFIs formed the unit of analysis. Since the target population was small, a census of all the MFIs was used. As acclaimed by Mugenda and Mugenda (2003), a census provides comprehensive information of all the units of analysis. Furthermore, the 13 MFIs had a total of 1740 respondents as per CBK Annual Report,(2018). These 1740 respondents formed the unit of observation. To ensure a representative sample, a proportionate stratified and simple random sampling technique was implored. Proportionate stratified and random sampling avoids similarity in responses and thus high precision (Sabodin & Adeleke, 2018; Gopinath & Kalpana, 2019).

According to Gay (1992), a sample size of 10% meets the requirements for a big accessible population. The current study adopted 20% to reduce likelyhood of type I and type II errors. The higher the sample size the lower the likelyhood of committing errors. Further, this offers a bigger chance for selection of respondents from each of the peer groups leading to increased confidence as argued in the study by Muathe (2010). Thus a sample of 352 respondents was used based on 20% of total of 1740 respondents as per CBK Annual Report, (2018). This was divided as; large peer group 228, medium peer group 68, and small peer group 56 as shown in Table 3.4. below.

Table 3.4 Distribution of Sample Size

S.No	MFI	Classification	Frequency	No. of employees	Total per classification	N *20% of N*	Percentage	% Per classification
1.	Kenya Women Finance Trust (KWFT) Micro Finance Bank PLC	Large	3	**438**	**1108**	**88**	**25.0**	**63.68%**
2.	Rafiki Micro Finance Bank Limited	Large		**375**		**75**	**21.30**	
3.	Faulu Kenya Micro Finance Bank Limited	Large		**325**		**65**	**18.50**	
4.	Small and Micro Enterprise Programme (SMEP) Micro Finance Bank Ltd	Medium	3	**260**	**338**	**52**	**14.90**	**19.43%**
5.	Caritas Micro Finance Bank Limited	Medium		**48**		**10**	**2.84**	
6.	Sumac Micro Finance Bank Limited	Medium		**30**		**6**	**1.70**	
7.	Century Micro Finance Bank Limited	Small	7	**50**	**294**	**10**	**2.80**	**16.89%**
8.	U&I Micro Finance Bank Limited	Small		**43**		**9**	**2.56**	
9.	Daraja Micro Finance Bank Limited	Small		**69**		**15**	**4.27**	
10.	Maisha Micro Finance Bank Limited	Small		**21**		**5**	**1.43**	
11.	Key Micro Finance Bank Limited	Small		**29**		**6**	**1.70**	
12.	Choice Micro Finance Bank Limited	Small		**19**		**4**	**1.10**	
13.	UWEZO Micro Finance Bank Limited	Small		**33**		**7**	**1.90**	
TOTAL			**13**	**1740**	**1740**	**352**	**100%**	**100%**

(Source: CBK Report,2019)

From the above table, three MFIs under large peer groups have the highest population of 63.68%. There are three MFIs under the medium peer group with 19.43% and six small peer groups which have a population of 16.89%. Kenya Women Finance Trust (KWFT) Micro Finance Bank PLC has the highest number of employees;25.0%, while Choice Micro Finance Bank Limited has the smallest number of employees; 1.1%. From the above, the greater the peer group the greater the size of the population.

3.7 Data Collection Instruments and Data Collection Procedure

Both primary and secondary data were collected for the study. Primary data collection was by use of a Likert scale questionnaire that was filled by the respondents. Secondary data was from credible AMFI and CBK reports. The use of multiple sources of data ensures data complementation and detailed data gathering as recommended by Saunders *et al*. (2012). The questionnaires used the Likert scale which is considered to be a fundamental psychometric tool that measures the opinions and attitudes of respondents. The variables were affective and thus a Likert scale questionnaire was the best instrument of adoption. Further, questionnaires help researchers collect large amounts of data with ease (Nemoto & Beglar, 2014).

The secondary data amplified the information available and it was authentic since it was published by reputable and credible associations. Table 3.5 below highlights the operationalization of the variables;

Data collection was carried out by sending questionnaires to the 13 regulated MFIs. Secondary data was from published documents, as per Appendix III. This provided data

for the dependent variable indicators. An introduction letter from Kenyatta University was sought first, then a warrant letter from National Commission for Science, Technology, and Innovation (NACOSTI). At the MFIs, consent and permission were sought from the management before data collection from all the respondents. The filled questionnaires were collected using online google forms within five weeks. They were arranged accordingly and collated for presentation and analysis.

Table 3. 5 Operationalization and measurement of study variables table

Variable	Nature	Operational definition	Indicators	Scale of Measurement	Questions covering the variable
MFI performance	Dependent variable	The measure of microfinance institutions' success through ROA, employee satisfaction, and a number of customers.	ROA Employee satisfaction Number of customers	Interval and Ratio scale , Nominal	Section H Question 16
Product Innovation Orientation.	Independent variable	Activities involving new products, improved products, and quality products among microfinance institutions leading to customer satisfaction and improved firm performance.	New products Improved products Quality products	Interval and Ratio scale	Section B Question 4&5
Organizational Innovation Orientation.	Independent variable	Activities involving routines, procedures, networking, automation, mobile banking, internet banking, loan appraisal efficiency, and organization structure that offer efficient operations of the micro finance institutions leading to customer satisfaction and improved firm performance.	Routines Procedures Networking Organisation Structure	Interval and Ratio scale	Section C Question 6 & 7
Financial Innovation Orientation.	Independent variable	Activities involving automation, mobile banking, internet banking and loan appraisal efficiency that offer efficient operations of the microfinance institutions leading to customer satisfaction and improved	Automation Mobile Banking Internet Banking Loan Appraisal Efficiency	Interval and Ratio scale	Section D Question 8 & 9

		firm performance.			
Market Innovation Orientation.	Independent variable	Openness to new media or techniques, sales channels and delivery channels leading to customer satisfaction and improved firm performance.	New marketing media or technique New sales channels New delivery channels	Interval and Ratio scale	Section E Question 10 & 11
Customer Satisfaction	Mediating variable	The fulfillment of customer expectations leading to improved firm performance.	Customer satisfaction index.	Interval and Ratio scale	Section F Question 12 &13
Regulatory Framework	Moderating variable	Activities involving prudential, non -prudential guidelines and government laws that affect MFIs.	Prudential guidelines Non-prudential guidelines Government laws	Interval and Ratio scale	Section G Question 14 & 15

Source: (Author &Literature Review, 2020)

3.8 Validity and Reliability of Research Instruments

Tools of data collection were analyzed for validity and reliability before being adopted in the study.

3.8.1 Validity of Research Instruments

An instrument's validity relates to its ability to measure the constructs as purported (Mugenda & Mugenda, 2003). Validity is in three types: content validity, face validity and construct validity. Validity needs assessment before an instrument is used for data collection. The measuring instrument's face validity was subjectively evaluated by the researcher and subject experts. Content validity was ensured by subjecting questionnaires to double checks and experts cross-checking to ensure that they covered all the variables within the study (Wanjiru *et al.,* 2019).

Construct validity was through correct operationalization of terms for each of the variables to ensure that they reflected the theories underpinning the conceptual framework for the study through the use of Confirmatory Factor Analysis (CFA). CFA investigated the instrument's construct validity by testing the correlation of variables by a smaller amount of latent variables as factors that enabled grouping variables with similar characteristics together, as recommended by Patton (2002) and Kinyua *et al*. (2015). Squared factor loading indicated the difference in the percentage of the original variables' variance as explained by a factor (Field, 2009; Hair *et al*.,2014). Eigen values higher than 1.0 and loadings larger than 0.4, as recommended by Rahim and Magner (2005), were adopted. Factor analysis offered the possibility of gaining a clear view of the data and using the subsequent analysis output. However, before conducting CFA, a sampling

adequacy test was conducted to establish a CFA's suitability. Kaiser-Meyer-Olkin measure (KMO) was accustomed to test for sample acceptability at a threshold index of 0.6.

Piloting of the research instrument was done on unregulated MFIs in Kiambu and Machakos Counties. It provided appropriateness of the questions and thus helped generate data and clarify the questions. Besides, it helped indicate the time required to fill in the questionnaire, which formed a basis for a time estimate for questionnaire completion to five weeks.

3.8.2 Reliability of Research Instruments

Reliability reviews how compatibly similar measures induce almost identical outcomes (Crano & Brewer, 2002). The instrument's reliability was done by piloting the questionnaire in 5 unregulated MFIs in Kiambu and Machakos Counties, and then adjustments were done. Cronbach Alpha score at the level of 0.7 confirmed the questionnaire's reliability (Field, 2009; Fatoki, & Asah, 2011; Blandford 2013). As noted, the threshold of 0.7 was adopted as recommended by Field (2009), Fatoki and Asah (2011), and Blandford (2013).

3.9 Data Analysis and Presentation

Description of variables' characteristics was by use of descriptive statistics (Mugenda & Mugenda, 2003; Muathe, 2010). Descriptive statistics include average scores, standard deviations, percentages, and frequency distribution. It shed light on the connection or link between the variables. Quantitative data were further used to achieve the inferential

analysis of the hypothesis using multiple regression analysis. The coefficient of determination (R^2) was used to denote the statistical significance of the regression models. A significance level of 0.05 was used in testing the hypotheses as recommended by Mugenda and Mugenda, (2003).

Qualitative data were categorized, coded, and grouped into themes and then triangulated with quantitative data and presented in narrative form (Waithaka *et al*., 2016). Both qualitative and quantitative measures were used in increasing the research findings' credibility, as echoed by Silverman (2019). The likelihood of committing Type I and Type II errors was reduced to have conclusive and reliable results as well (Muathe, 2010). According to Akobeng, (2016), a Type I error happens when H_0 is rejected on the condition that it's true. In comparison, Type II error happens when H_0 is not rejected when, in fact, it's false. Conducting a proportionate stratified and simple random sampling technique enabled reducing both types of errors. Field (2005) argues that increasing sample size and using a significant level of 5% minimizes the likelihood of committing Type I and Type II errors.

Table 3.6 below summarizes the various hypotheses put in the study, the suitable statistical test (s), and their comparable interpretations. Once data was analyzed, presentation was by use of table for ease of comprehending and interpretation.

Table 3.6 Hypotheses Testing

Hypotheses	Statistical Approach	Interpretation
H_{01}.	Multiple regression analysis **$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$.....3.1** **$FP = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$.....3.1a** **Non-$FP = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$...3.1b** **Y** =MFI performance composite index (Calculated using harmonic mean formula) **FP** = Financial Performance **Non-FP** = Non Financial Performance **X_1**= Product Innovation Orientation **X_2** = Organizational Innovation 0rientation **X_3** = Financial Innovation Orientation **X_4** = Market Innovation Orientation β_o= Constant or intercept β_i= Beta Coefficient for the respective variables ε= Residual factor or values not captured in within the regression model	**F- Statistics**-Significance of the overall model **R**- Strength of the association between strategic innovation orientation and the performance of MFIs **R^2**- Extent to which variations in the performance of MFIs is explained by strategic innovation orientation P =0.05 P≤0.05 reject null hypotheses
H_{02}.		
H_{03}.		
H_{04}.		
H_{05}.	Stepwise regression analysis **Step 1a: $FP = \beta_0 + \beta_5 X_5 + \varepsilon$** **Step 2a: $M = \beta_0 + \beta_6 X_5 + \varepsilon$** **Step 3a: $FP = \beta_0 + \beta_7 X_6 + \varepsilon$** **Step 4a: $FP = \beta_0 + \beta_8 X_5 + \beta_9 X_6 + \varepsilon$** **Step 1b: Non-$FP = \beta_0 + \beta_5 X_5 + \varepsilon$** **Step 2b: $M = \beta_0 + \beta_6 X_5 + \varepsilon$** **Step 3b: Non-$FP = \beta_0 + \beta_7 X_6 + \varepsilon$** **Step 4b: Non-$FP = \beta_0 + \beta_8 X_5 + \beta_9 X_6 + \varepsilon$** **FP**=MFI financial performance (ROA) **Non-FP**=MFI non-financial performance (Number of customers and employee satisfaction) **X_5**= Strategic Innovation Orientation **M**= Mediating variable **X_6**= Mediating variable (Customer satisfaction) **β_o**= Constant or intercept **β_i**= Beta Coefficient for the respective variables	**F- Statistics**-Significance of the overall model. Changes in: (i) **R** (ii) **R^2** (iii) P =0.05 P≤0.05 reject null hypotheses

	ε= Residual factor or values not captured in within the regression model	
H_{06}.	Stepwise regression analysis **Step 1a**: **FP = $\beta_0 + \beta_{10}X_5 + \beta_{11} X_7 + \varepsilon$** **Step 2a: FP= $\beta_0 + \beta_{12} X_5 + \beta_{13} X_7 + \beta_{14} X_5 * X_7 + \varepsilon$** **Step 1b**: **Non-FP = $\beta_0 + \beta_{10}X_5 + \beta_{11} X_7 + \varepsilon$** **Step 2b: Non-FP = $\beta_0 + \beta_{12} X_5 + \beta_{13} X_7 + \beta_{14} X_5 * X_7 + \varepsilon$** **FP** =MFI financial performance (ROA) **Non -FP** =MFI non-financial performance (Number of customers and employee satisfaction) X_5= Strategic Innovation Orientation X_7 = Regulatory framework β_o= Constant or intercept β_i= Beta Coefficient for the respective variables **ε**= Residual factor or values not captured in within the regression model	**F- Statistics**-Significance of overall model. Changes in: (i) **R** (ii) $\mathbf{R^2}$ (iii) P =0.05 P≤0.05 reject null hypotheses

Source: Researcher (2020)

3.10 Diagnostic Tests

Normality tests, linearity tests, autocorrelation tests, multicollinearity tests, and heteroscedasticity tests were run on the assumptions about the study population before testing the hypotheses. These tests ensured the authenticity of the result obtained from multiple linear regression analysis.

3.10.1Sample Adequacy Test

Keiser-Meyer-Olkin (KMO) test was carried out to attain adequacy in sampling data collected from research variables. KMO is the ratio of the squared tie-in between variables to the squared partial association between variables and it ranges from 0 to 1 (Field, 2009). It's used in determining the sampling adequacy of data that is used for factor analysis. Values greater than 0.5 reflect acceptable sampling adequacy while values below 0.5 require the collection of more data or reconsidering the variables to include in a study as advised by Malhotra and Dash (2011) and Brown and Onsman (2012). The study adopted a similar threshold of greater than 0.5 as was adopted by Kinyua *et al*.(2015).

3.10.2 Normality Test

Kothari (2004) defines normality in statistics as the possibility for normal distribution of a random variable over a population sample. Shapiro – Wilk test assumptions are that data should be well distributed and fit in a bell-shaped curve. This helps detect differences from normality due to its higher power than other tests (Field, 2013). Shapiro-Wilk statistic spans from zero to one. Probabilities (Sig value) larger than 0.05 means

there is a normal distribution of data while data significantly deviates from normal probabilities when (Sig value) is < 0.05 (Razali & Wah, 2011). This study adopted similar decision criteria. The data was of a continuous variable and thus the applicability of the Shapiro-Wilk test. Myoung (2008) recommends that data should be normally distributed, and the study echoed this recommendation. Any violation of the normality test would lead to the transformation of the data to fit.

3.10.3 Linearity Test

Linear regression analysis is performed to assess if one or more manipulator variables explain the dependent variable. When linearity exists, it means that each increase by one unit in an explanatory variable leads to a similar increase in the outcome variable (Field, 2013). The linearity test is contingent on five assumptions; multivariate, normality, no or little multicollinearity, linear relationship, no auto-correlation, and homoscedasticity.

The linear bond between the variables was experimented using Pearson's correlation coefficient as recommended by Field (2009). Correlation can either be positive or negative where apositive correlation indicates an increase in one variable results in a rise in the other variable while a negative correlation denotes a reversed association where a surge in one variable results in a decline in the other and zero indicates there is no correlation (Field, 2013). Research by Wanjiru *et al*.(2019) conducted a linearity test, and this study echoed the same test.

3.10.4 Autocorrelation Test

Autocorrelation refers to the non-independence of error terms and leads to invalid confidence intervals and significance tests (Field, 2013). Durbin-Watson (DW) test was used for autocorrelation in the residual of the model. Scores ranging from 1.5 to 2.5 indicated the absence of autocorrelation between error terms (Garson, 2012). Any violation of the assumption of no autocorrelation was corrected by expanding the confidence interval. The study by Kinyua *et al*. (2015) used the same threshold, and the study adopted the same.

3.10.5 Multicollinearity Test

Multicollinearity is the existence of linear correlation among variables leading to parameter estimation problems (Hair *et al*.,2014). This test assumes there is no multicollinearity, multiple regression assumes no correlation in the explanatory variables. Perfect multicollinearity exists if the link between two exposure variables in a regression model is equal to 1 or -1 even though the correlation coefficient between any two predictor variables normally lies between 1 and -1.

Variance Inflation Factor (VIF) was used to test the multicollinearity among variables. VIF gauges the implications of multicollinearity among the regression model variables. Multicollinearity reduces reliability as it increases the standard error of coefficients (Kim, 2019). A VIF value greater than 10 and a tolerance lesser than 0.1 validates the presence of multicollinearity (Hair *et al*., 2014). This study used this threshold.

Field (2009) recommended correlation coefficients greater than or equal to 0.9 be corrected. The research ensured that careful consideration was done before the inclusion of any two variables with a correlation coefficient of 0.7 or more as postulated by Tabachnick and Fidell (1996).

3.10.6 Heteroscedasticity Test

An unequal variance of the error terms across observations; the violation of homoscedasticity, is called heteroscedasticity (Williams, 2015). This test assumes that heteroscedasticity exists when the error term size varies across values of an exposure variable. The repercussions of going against the assumption of homoscedasticity come down to a matter of degree, rising as heteroscedasticity rises.

Williams (2015) argued that regression is suboptimal in the presence of heteroscedasticity because the examination outputs similar weights in all observations while in actual sense the observations having increased disturbance variance contain minimal information than observations having lesser disturbance variance. Heteroscedasticity further expedites prejudiced standard errors, consequently the danger of prejudiced inferences (Machado & Silva, 2013). This study adopted the Levene test in testing for homoscedasticity as suggested by (Field 2013). Where the figures of the Levene test probability statistics are more than P=0.05 which is the significant level, this shows that the variances are equal. P>0.05, accept H_0, the corollary being that the assumption on homoscedasticity is met and the regression model is reusable for future breakdown. The threshold for testing homogeneity of variance was a P-value of 0.5 (Gastwirth *et al*., 2009).

3.11 Reliability Test

The outcomes of the reliability test obtained from the pilot test conducted before actual data collection are presented in this section.

Table 3.7 Reliability statistics

Variables	Items	Reliability (Cronbach score)	Comments
Product Innovation Orientation	9	0.963	Accepted
Organizational Innovation Orientation	9	0.928	Accepted
Financial Innovation Orientation	7	0.912	Accepted
Market Innovation Orientation	7	0.781	Accepted
Regulatory Framework	13	0.747	Accepted
Firm Performance	8	0.872	Accepted
Overall	**53**	**0.867**	**Accepted**

Source: Pilot Test Data, (2020)

From the findings presented in Table 3.7 above, it was established that the 9 questions used to measure Product Innovation Orientation had an overall Cronbach's Alpha of 0.963, the 9 questions used to measure Organizational Innovation Orientation had an overall Cronbach's Alpha of 0.928, the 7 questions used to measure Financial Innovation Orientation had an overall Cronbach's Alpha of 0.912, the 7 questions used to measure Market Innovation Orientation had an overall Cronbach's Alpha of 0.781, the 13 questions used to measure Regulatory Framework had an overall Cronbach's Alpha of 0.747 and the 8 questions used to measure firm financial and non-financial performance had an overall Cronbach's Alpha of 0.872 all of which are above the threshold of 0.7.

Overall, all the 53 questions adopted in the study gave an overall Cronbach Alpha value of 0.867, greater than 0.7. This, according to Blandford (2013), is adequate when a

Cronbach's Alpha value is equal to or greater than 0.7. As a result, the questionnaire was not revised before being used for the main survey.

3.12 Ethical Considerations

Grinyer (2009) argued that the balancing act between the respondents and the researcher is important for a study to be ethically conducted. The researcher undertook various fundamental precautions to ensure ethical standards were adhered to in the research's conduct. The Kenyatta University Graduate School's prior authority was sought (Appendix I) and NACOSTI (Appendix III). Later, consent for collecting information and data was sought from the administration of each MFI and the respondents through the consent form (Appendix II).

Confidentiality of participants was guaranteed throughout the study by proper coding which encouraged a higher response rate. The online questionnaire was well structured to gather information directly associated with the study queries. Further, acknowledgment of textbooks and journals used in the study was prudently done.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter provides results and discussions dependent on the collected and analyzed data. Tables and figures are used for result representation. The discourse on the discoveries is contingent on theoretical and empirical literature reviewed. The study seeks to first and foremost establish the effects of strategic innovation orientation on the performance of MFIs in Nairobi City County, Kenya. Secondly, it sought to assess customer satisfaction's mediating effect on the nexus between strategic innovation orientation and performance of MFIs in Nairobi City County, Kenya. Besides, it sought to assess the moderating effect of the regulatory framework on the nexus between strategic innovation orientation and performance of MFIs in Nairobi City County, Kenya. This chapter comprises the response rate, respondent demographic characteristics, and descriptive statistics on every specific study variable, diagnostic tests, and regression analysis results and discussions.

4.2 Analysis of Response Rates

This section illustrates the number of questionnaires administered and those that were filled and returned. Table 4.1 presents the response rate of the questionnaires.

Table 4.1: Summary of distributed and returned questionnaires

Response	n	%
Questionnaires returned	184	52.27
Questionnairesnot returned	168	47.73
Total	**352**	**100**

Source: Field Data, 2021

The quantity of online questionnaires issued out was 352. 184 of the 352 online questionnaires issued were filled and returned. This depicts a response rate of 52.2%. Mugenda and Mugenda (2003) argued that a 50% response rate satisfied the requirements needed for reporting and analysis. The response rate was on that account considered adequate for drawing inferences and making conclusions.

4.3 Descriptive Analysis

The breakdown of the response rate, attributes of respondents who took part in the study, gender, working duration, and position held in the organization are presented below. A summary of the feedback dependent on the sample mean and sample standard deviation for the research variables incorporated in the study is presented and discussed.

4.3.1 Characteristics of Respondents

The study aimed to ascertain the distribution of the respondents according to gender. The results are summarized in Table 4.2.

Table 4.2 Characteristic of the Respondents

		n	%
Gender	Male	116	63
	Female	68	37
	Total	184	100
Years of work	1-5 Years	57	31
	6-10 Years	76	41.3
	11 Years and Above	51	27.7
	Total	184	100
Position held in the MFI	Operations Manager	84	45.7
	Marketing Manager	37	20.1
	Innovation (R&D) Manager	41	22.3
	Human Resource Manager	22	12
	Total	184	100

Source: Field Data, 2021

The gender of the respondents was compared as male and female. 116 male respondents represented 63% and 68 female respondents represented 37%. This shows that the male respondents exceeded female respondents and the representation of gender had a high gender disparity. This is likely due to the nature of the jobs involved in MFIs. The result further shows that 31% of respondents had worked in the institution for one to five years; 41.3% of respondents had worked in the MFI for six to ten years, while 27.7% of respondents had been employed for more than 11 years. This indicates the suitability of the respondents, based on their experience, as being able to provide credible information relating to the research variables.

The MFIs had 45.7% of the respondents working as operations managers, 20.1% as marketing managers, 22.3% as Innovation (R&D) Manager, and 12% as human resource managers. These findings imply that the distribution of personnel in the four functional

areas was good with most of the respondents being in the operations department that is crucial in the running of MFIs. Further, the respondents could respond to the questions in the questionnaire well since they addressed all the functional areas.

4.3.2 Descriptive Statistics on Research Variables

The study adopted product innovation orientation, organizational innovation orientation, financial innovation orientation, and market innovation orientation as the sub-constructs of strategic innovation orientation. Detailed descriptive statistics are presented and discussed below.

a) Product Innovation Orientation

The study aimed to establish the end result of product innovation orientation on the accomplishments of MFIs in Nairobi City County, Kenya. Accordingly, respondents were required to indicate their level of agreement on various queries regarding product innovation orientation on a scale of 1-5 where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree. The questionnaire was formulated with items that represented a set of actions designed to enhance. The researcher investigated the various elements of product innovation orientation; new products, improved products, and quality products among micro finance institutions and the results of the investigation are presented in Table 4.3 below.

Table 4.3 Descriptive results on Product Innovation Orientation

Statement	Mean	Std. Deviation
The Micro Finance Institution offers quality loan products.	4.5978	0.67037
The Micro Finance Institution offers various loan products.	4.5489	0.77375
The Micro Finance Institution values its loan products.	4.4674	0.88028
The Micro Finance Institution is able to offer new loan products.	4.4783	0.83605
The Micro Finance Institution is flexible in modifying its loan products.	4.3859	0.86081
It is not easy for the Micro Finance Institution customers to change to other Micro Finance Institution.	4.4022	0.83711
The Micro Finance Institution is able to evaluate new ideas from customers, suppliers, etc, and take them into account in product development.	4.3315	0.83887

Source: Field Data, 2021

From Table 4.3 above, most of the respondents agreed that the mean for the responses from the questions on production innovation orientation was above 4. This means that most of the respondents agreed that product innovation orientation plays a crucial role enough to affect performance in the MFIs. The statement Micro Finance Institution offers quality loan products was aimed at finding out the nature of the products offered by the MFIs, whereby the majority of the respondents, as shown by a mean of 4.60 strongly agreed. There was also low variation in the responses to this statement as shown by a standard deviation value of 0.67.

Another statement sought to establish whether the MFIs evaluate new ideas from customers, suppliers and takes their input in product development; the majority agreed and strongly agreed as reflected by the 4.33 mean value. This indicates that there is continuous evaluation of ideas for the MFIs to remain competitive in their product

diversification. A different statement sought to determine whether Micro Finance Institution offers various loan products, whereby majority of the respondents, as shown by mean of 4.55 agreed and strongly agreed. There was also low variation in the responses to this statement as shown by a standard deviation value of 0.77.

Another statement sought to establish whether it was difficult for the Micro Finance Institution customers to change to other Micro Finance Institutions, whereby the majority of the respondents, as shown by a mean of 4.40 strongly agreed. There was also a low variation in the responses to this statement as shown by a standard deviation value of 0.83. This addressed the non-financial performance aspect in that the number of customers didn't reduce.

b) Organizational Innovation Orientation

The study sought to establish the outcome of organizational innovation orientation on the execution of MFIs in Nairobi City County, Kenya. Accordingly, respondents were required to indicate their level of agreement on various assertions regarding product innovation orientation on a scale of 1-5 where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree. The questionnaire was formulated with items that represented a set of actions designed to enhance. The researcher investigated the various elements of organizational innovation orientation; routines, procedures, networking, and organization structure among microfinance institutions. Table 4.4 illustrates the results of the investigation.

Table 4.4 Descriptive Results on Organizational Innovation Orientation

Statement	Mean	Std. Deviation
The Micro Finance Institution organizational structure is balanced and clear.	4.3533	0.81662
The Micro Finance Institution has routines that guide the daily operations.	4.4457	0.75189
The Micro Finance Institution is open to new routines.	4.4728	0.72377
The Micro Finance Institution has processes that guide the daily operations.	4.4837	0.7011
The Micro Finance Institution adapts new process designs.	4.4239	0.75724
The Micro Finance Institution has procedures that guide the daily operations.	4.3261	0.79766
The Micro Finance Institution procedures are neither clear nor easily understood by all.	4.2228	0.72377
The Micro Finance Institution values networking with other Micro Finance Institutions.	4.3424	0.74449
The Micro Finance Institution frequently associates with other Micro Finance Institutions to acquire new knowledge.	4.4348	0.71371
Prudential guidelines help in regulating the conduct of Micro Finance Institutions.	4.3967	0.71685

Source: (Field Data, 2021)

The results in table 4.4 indicate that the mean of the respondents was above 4 designating that the respondents agreed with most of the questions on the Likert scale. The findings imply that organization innovation orientation is important for it is linked to the good performance of the MFI. A statement sought to establish whether the MFIs value networking and the mean from the respondents were 4.34 which implies that the majority of the respondents were in agreement. Another statement sought to establish whether the MFIs have processes that guide the daily operations and a greater number of respondents agreed as depicted by the 4.48 mean. There was also a low variation in the responses to this statement as shown by a standard deviation value of 0.70.

c) Financial Innovation Orientation

The study targets establishing the impacts of financial innovation orientation on the performance of MFIs in Nairobi City County, Kenya. Accordingly, respondents were solicited to highlight their agreement level on various queries with regards to product innovation orientation on a scale of 1-5 where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. The questionnaire was formulated with items that represented a set of actions designed to enhance. The researcher investigated the various elements of financial innovation orientation; automation, mobile banking, internet banking, and loan appraisal efficiency among microfinance institutions, and the investigation outcomes are illustrated in Table 4.5 below.

Table 4.5 Descriptive Results on Financial Innovation Orientation

Statement	Mean	Std. Deviation
The Micro Finance Institution mobile services are reliable.	4.5109	0.63581
Mobile services lead to improved Micro Finance Institution performance.	4.5326	0.6264
The number of customers using mobile services has increased in the last three years.	4.4348	0.62383
The Micro Finance Institution automation services are reliable.	4.3587	0.61104
Automation services lead to improved Micro Finance Institution performance.	4.4783	0.64407
The Micro Finance Institution internet services are reliable.	4.500	0.67751
The number of customers using internet services has increased in the last three years.	4.3967	0.70918
The utilization of internet services has to lead to improved Micro Finance Institution performance.	4.3696	0.67293
The Micro Finance Institution loan appraisal method is customer-friendly.	4.5489	0.62533

Source: (Field Data, 2021)

The findings in table 4.5 stipulate the mean of the respondents was above 4 indicating that the respondents agreed with most of the questions on the Likert scale. The findings imply that financial innovation orientation is important for it is linked to the good performance of the MFI. The automation, mobile banking, internet banking, and loan appraisal efficiency were strongly agreed that they led to customer satisfaction that led to influencing the performance. This might be due to them making the MFIs operate at optimum levels.

The mean was 4.4 suggesting that a high number of the respondents agreed on indicators as influencing the accomplishments of MFIs. The indicators of automation, mobile banking, internet banking, and loan appraisal efficiency among microfinance institutions led to customer satisfaction which enhanced firm performance. The statement on the increase in the number of customers using mobile services for the past three years had an average of 4.43 and a predictable error of 0.62 indicating that the mass of the answerers agreed with the increase in numbers.

d) Market Innovation Orientation

The research sought to institute the consequence of market innovation orientation on MFI achievements in Nairobi City County, Kenya. Accordingly, it was required of participants to highlight their level of consensus on various facts regarding market innovation orientation on a scale of 1-5 where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. The questionnaire was formulated with items that represented a set of actions designed to enhance. The researcher investigated the various elements of market innovation orientation; new marketing media, new sales channel, and

new delivery channelsamong microfinance institutions, and the results of the investigation are presented in Table 4.6 below.

Table 4.6 Descriptive Results on Market Innovation Orientation

Statement	Mean	Std. Deviation
The Micro Finance Institution has a wide market for its products.	4.3261	0.8312
The Micro Finance Institution market for its products is diversified.	4.2609	0.83463
The Micro Finance Institution has robust marketing media.	4.1141	0.8383
The Micro Finance Institution marketing media is effective	4.0326	0.80233
The Micro Finance Institution marketing media is reliable.	4.163	0.80676
The Micro Finance Institution promotes its products through reliable delivery channels.	4.1467	0.78594
The Micro Finance Institution has reliable sales channels.	4.1848	0.80204
The Micro Finance Institution has effective sales channels.	4.2787	0.81466

Source: (Field Data, 2021)

The findings in Table 4.6 show that the mean value of respondents was higher than 4 designating that the respondents agreed with most of the questions on the Likert scale. The findings imply that market innovation orientation is important for it is linked to the good performance of the MFI. The activities involving openness to the introduction of new marketing media, new sales channels, and new delivery channels were strongly agreed that they led to customer satisfaction that led to influencing the performance. This might be due to them making the MFIs operate at optimum levels.

A statement on the diversified market for products of Micro Finance Institutions had an average of 4.26 implying that the greatest number of answerers were in unison that the market is diversified for the MFI products. Another statement on the effectiveness of the marketing media for Micro Finance Institutions had an arithmetic mean of 4.03 meaning that the majority of respondents concurred that the marketing media was effective. This makes the MFI have a wide reach for their products hence an increase in customers leading to improved firm performance. MFIs should invest more in market innovation orientation activities; introduction of new marketing media, new sales channels, and new delivery channels since they influence the performance.

The average was 4.1 implying that a greater number of the respondents admitted to indicators influencing the production of MFIs. The indicators of openness to the introduction of new marketing media, new sales channels, and new delivery channels influenced the output of MFIs.

e) Performance of Micro Finance Institutions

The study looked at establishing the various elements of MFI performance and the investigation output is presented in Table 4.7 below. The performance of MFIs was measured using both primary and secondary data. The source data involved eight questions. The data on Return on Assets (ROA) from 2017 to 2020 was gotten from the banking survey reports of the respective years as illustrated below.

Table 4.7 Comparison of Return on Assets from 2017 to 2020

S/No	Bank	2017	2018	2019	2020
1	U&I Micro Finance Bank Limited	3.90	2.43	-0.03	0.05
2	Sumac Micro Finance Bank Limited	0.89	1.05	0.08	0.05
3	Faulu Kenya Micro Finance Bank Limited	0.65	1.01	0.03	-0.02
4	Kenya Women Finance Trust (KWFT) Micro Finance Bank PLC	0.13	-3.52	0.01	-0.03
5	Small and Micro Enterprise Programme (SMEP) Micro Finance Bank Ltd	-4.40	-0.54	-0.03	-0.01
6	UWEZO Micro Finance Bank Limited	-5.67	-13.78	-0.42	-0.17
7	Key Micro Finance Bank Limited (REMU)	-7.03	-9.70	-0.05	-0.06
8	Caritas Micro Finance Bank Limited	-8.07	-6.83	-0.03	0.01
9	Maisha Micro Finance Bank Limited	-16.69	-41.18	-0.03	0.04
10	Century Micro Finance Bank Limited	-21.96	-5.80	-0.54	-0.20
11	Daraja Micro Finance Bank Limited	-35.62	-25.58	-0.35	0.32
12	Choice Micro Finance Bank Limited	-45.16	-	-0.34	-0.46
13	Rafiki Micro Finance Bank Limited	-	-4.53	0.01	-0.01

(Banking Survey 2017, 2018, 2019, 2020 Reports)

From the banking survey reports, only three MFIs; U&I Micro Finance Bank Limited, Sumac Micro Finance Bank Limited, and Faulu Kenya Micro Finance Bank Limited had a positive ROA both in 2017 and 2018. The ROA of Kenya Women Finance Trust (KWFT) Micro Finance Bank PLC decreased from 0.13% to negative 3.52%. This was due to a fall in net profit after tax. Daraja Micro Finance Bank Limited had the least ROA of negative 35.62% in 2017.

Choice Micro Finance Bank Limited did not declare ROA for 2018 while Rafiki Micro Finance Bank Limited did not declare ROA for 2017. Small and Micro Enterprise Programme (SMEP) Micro Finance Bank Ltd has recorded negative ROA for the four years. However, Sumac Micro Finance Bank Limited recorded positive ROA in all the four years. In the year 2020, Choice Micro Finance Bank Limited recorded the highest negative ROA of negative

0.46% while Daraja Micro Finance Bank Limited recorded the highest positive ROA in 2020 of 0.32%.

The descriptive characteristics of performance indicators are summarized in table 4.8.

Table 4.8 Descriptive Results on Performance

Statement	Mean	Std. Deviation
The Micro Finance Institution enjoys a high customer base.	4.3478	0.76014
The number of customers has increased for the last three years.	4.3424	0.71452
The Micro Finance Institution has few complaints from its employees.	4.2228	0.74608
Employee absenteeism is minimal in our Micro Finance Institution.	4.2500	0.7484
Employees within the Micro Finance Institution are honest.	4.2174	0.83406
The Micro Finance Institution has well-trained and skilled employees.	4.2228	0.69292
The Micro Finance Institution has recorded an increased Return On Assets over the past financial year.	4.2554	0.74289
The Micro Finance Institution has an increased number of non-performing loans.	4.2772	0.74973

Source: (Field Data, 2021)

The results in Table 4.8 designate that the average of the equivocators was above 4 designating that the respondents agreed with most of the questions on the Likert scale. The findings imply that measuring the performance of MFI by both financial and non-financial measures; ROA, number of customers, and employee satisfaction is relevant as it shows the strategic aspects.

Table 4.9 Construct Elements Descriptive Statistics

Construct Indicators	Minimum	Maximum	Mean	Std. Deviation
ROA	3.00	5.00	4.2663	.58183
No of customers	3.00	5.00	4.3451	.55484
Employees satisfaction	3.00	5.00	4.2283	.54215

Source: (Field Data, 2021)

From Table 4.9 above the responses varied from moderate to strongly agree. The mean was 4.2 implying that most of the respondents were of the same opinion that indicators as being measures of financial and non-financial performance among MFIs. The indicators of ROA, number of customers and employees' satisfaction were applied in measuring the dependent variable, performance.

f) Customer Satisfaction Index of MFIs

Customer satisfaction metrics assist in understanding how customers respond to services; happy or unhappy. The aspects of the CSI were customer loyalty, trust, and corporate image, technology, the first point of interaction with the bank, bank personnel, service delivery, product and services, and access. The Bank Trak index was used to come up with the CSI. The weights used in the Bank Trak index were as highlighted in Table 4.10 below;

Table 4.10 Weightage Factor

No	Aspect	Weighting Factor	
1.	Customer Loyalty	0.2	20
2.	Trust & Corporate Image	0.16	16
3.	Technology	0.15	15
4.	First point of Interaction with the Bank	0.12	12
5.	Bank Personnel	0.10	10
6.	Service Delivery	0.01	10
7.	Product and Services	0.09	9
8.	Access	0.08	9
	Total	**1**	**100%**

(Field Data, 2021)

From the Table 4.10 above the aspects of the CSI are all linked to the strategic innovation orientation factors and thus good for usage of CSI as a mediating variable for the study.

The Table 4.11 below shows the MFI Consumer Satisfaction Index 2019 results from the Banking survey report of 2019. The report included thirteen MFIs.

Table 4.11 Consumer Satisfaction Index 2019 results

RANK	MFI	CSI
1.	Caritas Micro Finance Bank Limited	70.94%
2.	Small and Micro Enterprise Programme (SMEP) Micro Finance Bank Ltd	64.74%
3.	Rafiki Micro Finance Bank Limited	60.28%
4.	Maisha Micro Finance Bank Limited	58.35%
5.	U&I Micro Finance Bank Limited	57.97%
6.	Sumac Micro Finance Bank Limited	57.10%
7.	Faulu Kenya Micro Finance Bank Limited	53.87%
8.	Kenya Women Finance Trust (KWFT) Micro Finance Bank PLC	52.82%
9.	Century Micro Finance Bank Limited	49.38%
10.	Choice Micro Finance Bank Limited	48.00%
11.	UWEZO Micro Finance Bank Limited	45.57%
12.	Key Micro Finance Bank Limited	44.86%
13.	Daraja Micro Finance Bank Limited	41.39%
	Average	**60.47%**

(Field Data, 2021)

From the MFI Consumer Satisfaction Index for 2019 Caritas Micro Finance Bank Limited had the highest index of 70.94% while Daraja Micro Finance Bank Limited had the lowest index value of 41.39%.

g) Regulatory Framework

The research aimed at determining the moderating effect of regulatory framework on the nexus between strategic innovation orientation and performance of MFIs in Nairobi City County, Kenya. Accordingly, respondents were inquired to mark the extent of their agreement on various questions regarding regulatory framework based on a scale of 1-5 where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. The questionnaire was formulated with items that represented a set of actions

designed to enhance. The researcher investigated the various elements of the regulatory framework; prudential guidelines, non-prudential guidelines, and government laws. The results are presented in Table 4.12.

Table 4.12Descriptive Statistics of the Regulatory Framework

Statement	Mean	Std. Deviation
Prudential guidelines help in regulating the conduct of Micro Finance Institutions.	4.3967	0.71685
Prudential guidelines regulating the conduct of Micro Finance Institutions are clear.	4.3641	0.71136
The capital thresholds in the Micro Finance Institution sector are set.	4.4076	0.73339
Liquidity thresholds in the Micro Finance Institution sector are set.	4.4022	0.71761
Minimum investment thresholds are set thresholds in the Micro Finance Institution sector.	4.4239	0.68127
Loan provisioning thresholds are set in the Micro Finance Institution sector.	4.4239	0.69712
The Micro Finance Institution asset quality is clear.	4.4565	0.63441
There is a sound level of competition between Micro Finance Institutions in the sector.	4.4674	0.68475
Non - prudential guidelines help in regulating the conduct of Micro Finance Institutions.	4.5380	0.59933
Pricing by CBK for Micro Finance Institutions is clear.	4.5000	0.62725
Moral suasion tools (threats) by the Central Bank of Kenya have been effective in Micro Finance Institution's behavior control.	4.5272	0.64386
Government laws help in regulating the conduct of your Micro Finance Institution.	4.5217	0.63553
Government laws on the regulation of Micro Finance Institutions are rigid.	4.5652	0.64958
Government laws on the regulation of Micro Finance Institutions ensure enforcement of Micro Finance Institution behavior.	4.4239	0.65676
Adherence to Government laws on the regulation of Micro Finance Institutions has led to an increase in the number of customers in our Micro Finance Institutions.	4.4837	0.63569
Average	**4.4600**	**0.6683**

Source: Field Data (2021)

The findings in Table 4.12 designate that the mean of the respondents was above 4 signifying that the respondents agreed with most of the questions on the Likert scale. The findings imply that the regulatory framework is important for it arbitrates the bond existing between strategic innovation orientation and MFI execution. The prudential guidelines, non-prudential guidelines, and government laws were strongly agreed that they influenced the performance of MFIs. This might be due to regulating the conduct of MFIs in the sector.

The arithmetic average was 4.4 implying that most of the interviewees agreed with the indicators as having a regulating effect on the conduct of MFIs. The indicators of prudential guidelines, non-prudential guidelines and government laws were a control that moderated the nexus between strategic innovation orientation and performance of MFIs.

4.4 Diagnostic Tests

4.4.1 Sample Adequacy Test

The sampling adequacy of the data collected for the research variables was tested using Keiser-Meyer-Olkin (KMO). The KMO statistics range from 0 to 1 (Field, 2009). Brown and Onsman (2012) observed that values greater than 0.5 reflect acceptable sampling adequacy. On the other hand, values below 0.5 require the acquisition of more information or rethinking the variables to incorporate in the study.

Table 4.13 KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.779
Bartlett's Test of Sphericity	Approx. Chi-Square	194.167
	Df	15
	Sig.	0.000

Source: Field Data (2021)

Table 4.13 depicts that the KMO test done on the variables in this study produced a satisfactory value of 0.779 which proved that the sample size was sufficient for further examination as it was higher than the recommended 0.7. Bartlett's test of sphericity that was conducted resulted in a chi-square value of 194.167 with a p-value of 0.000 which is lower than 0.05. This confirmed the former deduction that a p-value less than 0.05 indicates that there is a sturdy correlation between the study variables resulting in Bartlett's test being highly significant. The results justified the validity of constructs and the data was hence cleared for further regression analysis as was argued by Brown and Onsman (2012).

4.4.2 Normality Test

The study used Shapiro-Wilk's test to test for normality as shown in Table 4.14 below.

Table 4.14 Shapiro Wilk Test for Normality

Tests of Normality	Shapiro-Wilk-Statistics	Df	Sig.
Product Innovation Orientation	0.875	184	0.120
Organizational Innovation Orientation	0.941	184	0.098
Financial Innovation Orientation	0.971	184	0.067
Market Innovation Orientation	0.831	184	0.077
Customer Satisfaction	0.841	184	0.074
Regulatory Framework	0.971	184	0.193
Firm Performance	0.904	184	0.109

a Lilliefors Significance Correction

Source: Field Data (2021)

The results presented in Table 4.14 show that the Shapiro-Wilk-Statistics for every variable with a p-value greater than 0.05. The study used a significance level of p is greater than or equal to 0.05 to mark the abnormality in the distribution of exposure variables. Therefore, the null hypothesis that data is not significantly different from normal distribution was not rejected implying the data for all the variables were normally distributed with no outliers. The data, therefore, met the regression assumption of normal distribution. Garson, (2012) proposes that Shapiro-Wilk's test should be insignificant if the assumption of normality is reached. This was achieved and thus the data was fit for further regression analysis.

4.4.3 Linearity Test

In this study, Pearson's correlation coefficient was used to prove compliance on the linearity assumption as recommended by (Wooldridge, 2000).The findings for the linearity test are shown in Table 4.15 below.

Table 4.15 Correlation Matrix

		PIO	OIO	FIO	MIO	CS	RF	ROA	NFP
PIO	Pearson Correlation	1							
OIO	Pearson Correlation	.338**	1						
FIO	Pearson Correlation	.413**	.295**	1					
MIO	Pearson Correlation	.325**	.284**	.299**	1				
CS	Pearson Correlation	.264**	.252**	.302**	.349**	1			
RF	Pearson Correlation	.238**	.459**	.379**	.308**	.283**	1		
ROA	Pearson Correlation	.370**	.285**	.376**	.480**	.243**	.298**	1	
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.001	0.000		
	N	184	184	184	184	184	184	184	
NFP	Pearson Correlation	.413**	.308**	.380**	.396**	.356**	.312**	.277**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	N	184	184	184	184	184	184	184	184

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

PIO-Product Innovation Orientation, OIO-organizational Innovation orientation, FIO-Financial Innovation Orientation, MIO-Market Innovation Orientation, RF-regulatory Framework, CS-Customer Satisfaction, ROA-Return of Asset, NFP-Non-financial Performance

Source: Field Data (2021)

The findings confirmed there was an undeviating interrelation between all the manipulated variables and experimental variables as indicated by a correlation of 1. The outcomes illustrated that data cohered to the linearity assumption of the regression. Hence, the data could be used to carry out regression analysis.

4.4.4 Autocorrelation Test

The study tested for autocorrelation using Durbin-Watson. Table 4.16 below shows the Durbin-Watson results.

Table 4.16 Durbin-Watson Test Results for Autocorrelation

Model	Durbin-Watson
1	1.86

a Predictors: (Constant), Product Innovation Orientation, Market Innovation Orientation, Financial Innovation Orientation, Organizational Innovation Orientation,
b Responding Variable: MFI Performance

Source: Field Data (2021)

The results in Table 4.16 show the Durbin-Watson statistics score of 1.86 which indicates there was no autocorrelation in the data since the score was between 1.5 and 2.5. The study used a threshold of $1.5 < d < 2.5$ scores to mean that there is no autocorrelation between error terms as recommended by (Garson, 2012). Presence of auto correlation could affect the usage of the data in further analysis. Thus, the current data could be used to carry out regression analysis because it did not violate this assumption.

4.4.5 Multicollinearity Test

Variance Inflation Factor (VIF) was used to test for multicollinearity across variables.

Table 4.17 Variance Inflation Factor (VIF) Results for Multicollinearity

	Collinearity Statistics	
	Tolerance	VIF
Product Innovation Orientation	0.745	1.343
Organizational Innovation Orientation	0.722	1.386
Financial Innovation Orientation	0.721	1.387
Market Innovation Orientation	0.777	1.287
Regulatory Framework	0.7	1.429
Customer Satisfaction	0.809	1.237

a Dependent Variable: MFI Performance

Source: Field Data (2021)

The results in Table 4.17 show that there was no subsequent threat of multicollinearity as all the variables had a VIF of less than 10. Product Innovation Orientation had a VIF of 1.343 which is fewer than 10, Organizational Innovation Orientation had a VIF of 1.386 which is less than 10, Financial Innovation Orientation had a VIF of 1.387 which is less than 10, Market Innovation Orientation had a VIF of 1.287 which is less than 10, Regulatory Framework had a VIF of 1.429 which is less than 10 and customer satisfaction had a VIF of 1.237 which is less than 10.

According to Hair *et al.* (2014) VIF values were fewer than 10 for every variable which indicated the absence of multicollinearity. The presence of multicollinearity affects the estimation of model parameters. The findings prove that the multicollinearity assumption was adhered to and therefore the data could be used to carry out regression analysis.

4.4.6 Heteroscedasticity Test

This research used the Levene test to check for homoscedasticity as put forward by Field (2013) where the values of the Levene test probability statistics are greater than the significant level of p equals to 0.05. This implies that the variances are equal. Values should be greater than 0.05 to meet the homoscedasticity assumption as suggested by Field (2013). The results are highlighted in Table 4.18 below.

Table 4.18 Variance inflation factor (VIF) Results for Heteroscedasticity

Test of Homogeneity of Variances	Levene Statistic	df1	df2	Sig.
Product Innovation Orientation	1.751	1	182	0.099
Organizational Innovation Orientation	0.002	1	182	0.961
Financial Innovation Orientation	0.105	1	182	0.746
Market Innovation Orientation	1.051	1	182	0.154
Customer Satisfaction	1.911	1	182	0.090
Regulatory Framework	0.448	1	182	0.504
Firm Performance	0.723	1	182	0.396

Source: Field Data (2021)

The results in Table 4.18 reveal that Product Innovation Orientation had a levene statistic of 1.751, p-value =0.099>0.05.Organizational Innovation Orientation had a levene statistic of 0.202, p-value =0.961>0.05, Financial Innovation Orientation had a levene statistic of 0.105, p-value =0.0746>0.05, Market Innovation Orientation had a levene statistic of 1.051, p-value =0.154>0.05, Customer Satisfaction had a levene statistic of 1.911, p-value =0.090>0.05, Regulatory Framework had a levene statistic of 0.448, p-value =0.504>0.05 while firm performance had a a levene statistic of 0.723, p-value =0.3969>0.05.

The study gave out in rejecting the null hypothesis that homoscedasticity existed in the data and allow more advanced inspection using the regression model. The study results show that the assumption was achieved and further analysis using the regression model can be conducted.

4.5 Multiple Regression Analysis

This section presents the findings of the multiple regression model that was used to test whether strategic innovation orientation (product innovation orientation, market

innovation orientation, organizational innovation orientation, financial innovation orientation) significantly predicted the performance of MFIs in Kenya. Where measure of performance was by use of financial and no-financial measures. Moreover, the regression analysis was conducted on the moderating and mediating variables.

Table 4.19a Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Financial Performance	0.564	0.318	0.302	1.10617
Non-financial Performance	0.538	0.290	0.274	1.08912

a Predictors: (Constant), Market Innovation Orientation, Organizational Innovation Orientation, Financial Innovation Orientation, Product Innovation Orientation

Source: Field Data (2021)

The results of the model summary presented in Table 4.19a show that the performance outcomes with the financial measure as dependent variable had an adjusted R-squared = 0.302 which inferred that independent variables which include market innovation orientation, organizational innovation orientation, financial innovation orientation, product innovation orientation accounted for 30.2% of the dissimilarity in performance of MFIs in Kenya.

The performance results with non-financial performance as a dependent variable had adjusted R-squared = 0.290 which also implied that strategic innovation orientation (market innovation orientation, organizational innovation orientation, financial innovation orientation, product innovation orientation) accounted for 29.0% of the imbalance in non-financial performance. The findings confirmed that strategic innovation was a good explanatory variable of the performance of MFIs in Kenya.

Table 4.19b Analysis of Variance (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
Financial Performance	Regression	101.931	4	25.483	20.826	.000b
	Residual	219.025	179	1.224		
	Total	320.957	183			
Non-Financial Performance	Regression	86.631	4	21.658	18.258	.000b
	Residual	212.326	179	1.186		
	Total	298.957	183			

b. Predictors: (Constant), Market Innovation Orientation, Organizational Innovation Orientation, Financial Innovation Orientation, Product Innovation Orientation

Source: Field Data (2021)

The investigative results of variance in Table 4.19b show both measures of performance using financial and non-financial measures had the goodness of fit as shown by f-statistics =20.826, p-value =0.000 and f-statistics =18.258, p-value =0.000 respectively. The findings of the analysis of variance implied that the regression used in predicting the effect of strategic innovation orientation was statistically significant.

Table 4.19c shows the regression coefficients results of the multiple regression model that was used to test whether strategic innovation orientation (product innovation orientation, market innovation orientation, organizational innovation orientation, financial innovation orientation) significantly predicted the performance of MFIs; financial and non-financial performance.The table will be used in the discussion of the regression results for the various direct relationship hypotheses.

Table 4.19c Regression Coefficients

		B	Std. Error	Beta	T	Sig.
Financial performance	(Constant)	0.869	0.333		2.61	0.010
	Product Innovation Orientation	0.157	0.074	0.152	2.134	0.034
	Organizational Innovation Orientation	0.075	0.065	0.079	1.165	0.246
	Financial Innovation Orientation	0.184	0.07	0.184	2.64	0.009
	Market Innovation Orientation	0.348	0.066	0.353	5.235	0.000

		B	Std. Error	Beta	T	Sig.
Non-Financial Performance	(Constant)	1.004	0.328		3.063	0.003
	Product Innovation Orientation	0.222	0.073	0.222	3.059	0.003
	Organizational Innovation Orientation	0.102	0.064	0.111	1.604	0.111
	Financial Innovation Orientation	0.178	0.069	0.185	2.592	0.010
	Market Innovation Orientation	0.225	0.065	0.237	3.44	0.001

Source: Field Data (2021)

H_{01a}: Product Innovation Orientation has no statistically significant effect on the financial performance of MFIs in Nairobi City County, Kenya

Results in Table 4.19c show that product innovation orientation had a coefficient of $\beta=0.157$, p-value=0.034<0.05 when regressed against financial performance. These findings implied the effects of product innovation orientation on financial MFI were statistically significant. The findings further implied that increasing product innovation orientation by a unit would result in 0.157 units increase in financial performance.

Therefore, product innovation orientation plays a crucial role in MFI performance. The results corroborate with the findings of Kiveu *et al*.(2019) who asserted that product innovation had a positive upshot on the rivalry of 284 manufacturing SMEs in Nairobi between 2012 and 2014 which led to improved performance. Further, the findings are

concise with the study undertaken by Kibugo (2016) who found out that product innovations influence on the performance of MFIs in Nakuru County had a significant effect.

The results resonate well with Ionescu *et al*. (2015) on innovation orientation relationship with performance among 106 companies in Romania. There was a strong and direct relationship with new products as a product innovation orientation indicator. Besides, the study resonates well with Tang *et al*. (2018) on green innovation aftermath on firm achievements of Chinese manufacturing firms who established that product innovation had a significant positive effect on firm output.

In addition, the study resonates with research by Ibrahim (2016), whose findings determined that product innovation had a meaningful influence on the performance of Safaricom Limited in Kenya. Besides, the research resonates well with research by Wadho and Chaudhry (2018), who found out that product invention had a denoting effect on textile and apparel manufacturers in Pakistan. However, the study was not in support of the study by Tuan et al. (2016) found out that product design had an insignificant effect on the firm's performance of supporting industries in Hanoi, Vietnam.

H_{02a}: Organizational Innovation Orientation has no significant effect on financial performance of MFIs in Nairobi City County, Kenya

The results in Table 4.19c show that organizational innovation orientation which is a sub construct of strategic innovation orientation had a coefficient of $\beta=0.075$, p-value=0.246>0.05 when regressed against financial performance. These findings indicate

that the effect of organizational innovation orientation on MFI financial performance was statistically insignificant, though with a positive relationship. This resonates with the study by Atalay *et al*. (2013) who found out that organizational innovation had an insignificant effect on the firm's production of the Turkish automotive supplier industry.

The current study failed to support the findings of Kiende *et al*. (2019) on strategic innovation orientation influence on the discharge of SMEs owned by women in Kenya who found out that organizational innovation influenced the performance of manufacturing SMEs positively. Organizational innovation was operationalized as new routines, new procedures, and new capabilities as was in the current study.

Moreover, the study did not corroborate with research by Maldonado-Guzmán *et al*.(2019) on innovation capabilities among SMEs in Mexico who found out that the four sub-constructs of innovation capabilities; product, process, management, and marketing had a positive and significant effect on the performance of SMEs. Procedures and organizational structures were the indicators of organizational innovation orientation as was in the topical study.

Moreover, the study does not resonate with research by Ibrahim (2016) who established that organization innovations had significant effect on the performance of Safaricom Limited in Kenya.

H_{03a}: Financial Innovation Orientation has no significant effect on financial performance of MFIs in Nairobi City County, Kenya

The results in Table 4.19c further show that financial innovation orientation had a coefficient of β=0.184, p-value=0.009<0.05 when regressed against financial performance. These findings implied that financial innovation orientation has a statistically significant impact on the MFIs performance. The findings further implied that increasing financial innovation orientation by a unit would result in 0.184 units increase in ROA; financial performance. This study, therefore, rejected the null hypothesis which dictates financial innovation orientation effect on the financial performance of MFIs in Nairobi City County, Kenya is not significant.

The findings are in resonance with the study by Atakli and Asiedu (2020) who discovered that the impact of financial innovation; ATM, internet, and mobile banking had a pragmatic but insignificant consequence on the number of bank deposits in Africa. In addition, this resonates with the study by Chalabi (2020) on financial innovation among Lebanese banks that showed mobile banking having a significant impact on financial performance for it led to increased profits, loans, and assets.

Besides, the study resonates well with research by Tang *et al*. (2018) on green innovation impact on enterprise performance of Chinese manufacturing enterprises who established that process innovation resulted in a beneficial and significant impact on business output. In addition, the study resonates well with research by Koech and Makori (2014) who established that process innovations, technology innovations, and value innovations significantly influenced the financial performance of Kenyan Commercial Banks.

Further, the study resonates well with research by Ibrahim (2016) who established that process innovations had a crucial effect on Kenya's Safaricom Limited performance. Moreover, the study conforms with research by Odhiambo and Ngaba (2019) who found out that financial innovation through; mobile banking, agency banking, internet banking, and the utilization of automated cards effect on the financial performance of commercial banks in Kenya was significant.

Further, the findings resonate well with study by Muchangi *et al*. (2019) who established that financial innovation through automated cards had a significant effect on the performance of Deposit –taking SACCOs' in Kenya. Besides, the study resonates well with research by Kemboi (2018) who established that automation's effect on banks' performance was significant.

Moreover, the study resonates well with research by Hossain and Zhou (2018) who found out that mobile payments; an indicator of financial innovation orientation, had a significant effect on purchase intention and customer satisfaction among Chinese online shoppers.

H_{04a}: Market Innovation Orientation has no significant effect on the financial performance of MFIs in Nairobi City County, Kenya

The results in Table 4.19c further illustrate that market innovation orientation had a coefficient of $\beta=0.348$, p-value=0.000<0.05 when regressed against financial performance. These findings established that the impact of market innovation orientation on MFI financial performance was statistically significant. The finding further implied that increasing market upheaval orientation by a unit would result in a 0.348 units

increase in ROA. This study, therefore, rejected the null hypothesis that market innovation orientation has no significant effect on the financial performance of MFIs in Nairobi City County, Kenya.

The finding supports those of Rajapathirana and Hui (2018) who established that market innovation capability had a positive and significant effect on the performance of Sri Lankan insurance companies. This corroborates with studies by Maldonado-Guzmán *et al*.(2019) on innovation capabilities among SMEs in Mexico who found out that the marketing revolution capabilities had a practical and significant effect on the performance of SMEs.

Besides, the research resonates well with research by Koech and Makori (2014) who established that market innovations significantly influenced the fiscal accomplishments of Kenyan Commercial Banks. In addition, the study resonates well with research by Ibrahim (2016) who established that market transformations had a significant influence on the accomplishments of Safaricom Limited in Kenya. However, the study was not in support of the study by Atalay *et al*.(2013) who found out that marketing innovation impact on Turkish automotive supplier industry's performance was insignificant.

H_{01b}: Product Innovation Orientation has no significant effect on the non-financial performance of MFIs in Nairobi City County, Kenya

The results in Table 4.19c show that product innovation orientation which is a sub construct of strategic innovation orientation had a coefficient of $\beta=0.222$, p-value=0.003<0.05 when regressed against non-fiscal completion. The findings

additionally implied that increasing product invention orientation by a unit would result in a 0.222 units increase in the non-budgetary accomplishment of customer satisfaction and the number of customers.

Therefore, product innovation orientation plays a crucial role in MFI performance. This finding verifies with the findings of Kiveu *et al*. (2019) who asserted that product restructuring had an efficacious effect on the rivalry of 284 manufacturing SMEs in Nairobi between 2012 and 2014 which led to improved performance. Further, the outcomes are firm with the study by Kibugo (2016) who found out that product innovations had a momentous influence on the execution of MFIs in Nakuru County.

These results resonate well with studies by Ionescu *et al*. (2015) on innovation orientation relationship with performance among 106 companies Romania found out that there was a strong and direct relationship with original commodities as one of the indicators for the product innovation orientation. In addition, the results resonate well with studies by Karabulut (2015) found out that product innovation significantly impacted the performance of manufacturing firms in Turkey.

This further corroborates with the study by Ibrahim (2016) on strategic innovation orientation out-turn on the execution of Safaricom Limited in Kenya which had a positive and significant effect. New products as well as improved products also contribute to improved firm performance amongst MFIs. These results resonate well with studies by Ionescu *et al*. (2015) on innovation orientation relationship with performance among 106 Romanian companies, who found out that there was a strong and direct relationship with new product as one of the indicators for the product innovation orientation.

Further, this is supported by the study by Kibugo (2016) on effects of fiscal innovations on the completion of MFIs in Nakuru town found out that the mastery of institutional, product, and process innovation on the MFI performance was crucial. MFIs can focus on innovating on new, improved, and quality products for their customers. However, the study was not in support of the study by Tuan *et al*.(2016) who found out that product innovation had an insignificant effect on the business achievements of supporting industries in Hanoi, Vietnam.

H_{02b}: Organizational Innovation Orientation has no significant effect on the non-financial performance of MFIs in Nairobi City County, Kenya

The results in Table 4.19c show that organizational innovation orientation, which is a sub construct of strategic innovation orientation, had a coefficient of $\beta=0.102$, p-value=0.111>0.05 when regressed against non-financial performance. These findings specify that the effect of organizational innovation orientation on non-fiscal MFI performance was statistically insignificant.

Therefore, the research failed to reject the null hypothesis that organizational innovation orientation has no significant effect on the performance of MFIs in Nairobi City County, Kenya. These findings failed to support Kiende et al. (2019), and Maldonado-Guzmán et al. (2019) who showed that organizational innovation orientation significantly influenced the dispatch of organizations. In addition, the study does not resonate well with research by Ibrahim (2016), who established that organizational innovations had a significant effect on the performance of Safaricom Limited in Kenya.

H_{03b}: Financial Innovation Orientation has no significant effect on non-financial performance of MFIs in Nairobi City County, Kenya

The results in Table 4.19c further show that financial innovation orientation had a coefficient of β=0.178, p-value=0.010<0.05 when regressed against non-financial performance. These findings implied the repercussions of fiscal innovation orientation on MFI non-financial performance was substantially significant. The finding further implied that increasing financial innovation orientation by one unit would result in a 0.178 units increase in non-financial performance of customer satisfaction and the number of customers. This study rejected the null hypothesis that financial innovation orientation has no significant effect on the non-financial performance of MFIs in Nairobi City County, Kenya.

This resonates well with the study by Firdous and Farooqi (2017) who found out that internet banking service quality had a considerable impact on customer experience among banks in New Delhi leading to improved performance. Further, this is supported by the study by Rahman, Hasan, and Mia (2017) who found out that mobile banking which is a subset of financial innovation had a meaningful effect on client satisfaction among banks in Bangladesh. In addition study by Gomachab and Maseke (2018) on the impact of mobile banking on consumer satisfaction among commercial banks of Namibia found out that mobile banking had a substantial impact on the satisfaction of customers.

Further, the study resonates well with research by Muchangi *et al*. (2019) who found out that financial innovation through automated cards had a major influence on the

performance of Deposit –taking SACCOs' in Kenya. Besides, the study resonates well with research by Kemboi (2018) who established that automation's effect on banks' performance was significant. In addition, the results resonate well with studies by Karabulut (2015) found out that the precipitate of financial innovation on the non-financial performance of manufacturing firms in Turkey was significant.

H_{04b}: Market Innovation Orientation has no significant effect on non-financial performance of MFIs in Nairobi City County, Kenya

The results in Table 4.19c further show that market innovation orientation had a coefficient of $\beta=0.225$, p-value=0.001<0.05 when regressed against non-financial performance. These findings established that the follow-through of market innovation orientation on non-financial performance MFI was statistically significant. The finding further implied that increasing market newness orientation by a unit resulted in a 0.225 units increase in non-fiscal performance of customer satisfaction and the number of customers. This study on that account rejected the null hypothesis that market innovation orientation has no significant effect on the performance of MFIs in Nairobi City County, Kenya.

This is in resonance with the study by Wang and Kim (2017) who uncovered that social media marketing had a profound effect on customer loyalty among service providers in Nigeria. In addition, the findings are supported by the study by Mabenge, Ngorora-Madzimure, and Makanyeza (2020) who found out that the marketing innovation dimension had a strong effect on the non-financial performance of SMEs in Zimbabwe.

Further, this is supported by the research by Na *et al*. (2019) who found out that market orientation and market innovation had an enormous impact on the performance of sharing economy business in Korea. Besides, the study resonates well with research by Maldonado-Guzmán *et al*.(2019) on innovation capabilities among SMEs in Mexico who found out that the four sub-constructs of innovation capabilities; product, process, marketing, and management had a powerful influence effect on SMEs output.

Nonetheless, the study was not in support of research by Karabulut (2015) who found out that the pursuance of market innovation on non-financial performance; learning and growth perspective, of manufacturing firms in Turkey, was insignificant.

H_{02a}: Customer Satisfaction has no significant mediating effect on the relationship between strategic innovation orientation and financial performance of MFIs in Nairobi City County, Kenya

The study tested if customer satisfaction significantly conciliated the link between strategic innovation orientation and the fiscal accomplishments of MFIs in Kenya. The study used Baron and Kenny four steps for the test of mediation. In the test for mediation, a composite for the dependent variable (financial performance) and independent variable (Strategic Innovation Orientation) were computed using mean.

Step 1: SIO Predicting Financial Performance of MFIs

In this first step, the study aimed to establish whether strategic innovation orientation significantly predicted the financial performance of MFIs. The goal of this step was to test whether there existed a significant relationship to be mediated.

Table 4.20a SIO Predicting Financial Performance of MFIs

		B	Std. Error	Beta	T	Sig.
Coefficients	(Constant)	1.244	.369		3.376	.001
	Strategic Innovation Orientation	.658	.097	.450	6.798	.000
ANOVA		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	82.613	1	82.613	63.083	.000[b]
	Residual	238.344	182	1.310		
	Total	320.957	183			
Model Summary	R	.507[a]				
	R Square	.257				
	Adjusted R Square	.253				
	Std. Error of the Estimate	1.14437				

a. Dependent Variable: MFI financial Performance

b. Predictors: (Constant), Strategic Innovation Orientation

The results presented in Table 4.20a show that strategic innovation orientation had a coefficient $\beta=0.743$, p-value $=0.000<0.05$. The finding indicates that strategic innovation orientation and financial performance of MFI have a significant relationship. The model was also statistically significant as shown by f-statistics =63.083, p-value= 0.000. Therefore, the first step for mediation testing was achieved.

Step 2: Strategic Innovation Orientation Predicting Customer satisfaction of MFIs

A regression analysis was carried out in the second step to test whether independent variables (strategic innovation orientation) significantly predicted the mediating variable (customer satisfaction). The relationship between independent variables (strategic innovation orientation) and the mediating variable (customer satisfaction) must be significant to achieve complete mediation.

Table 4.20b SIO Predicting Customer satisfaction of MFIs

		B	Std. Error	Beta	T	Sig.
Coefficients	(Constant)	1.244	.369		3.376	.001
	Strategic Innovation Orientation	.658	.097	.450	6.798	.000
ANOVA		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	64.820	1	64.820	46.216	.000[b]
	Residual	255.262	182	1.403		
	Total	320.082	183			
Model Summary	R	.450[a]				
	R Square	.203				
	Adjusted R Square	.198				
	Std. Error of the Estimate	1.18429				

a. Dependent Variable: MFI financial Performance

b. Predictors: (Constant), Strategic Innovation Orientation

The results presented in Table 4.20b show that strategic innovation orientation had a coefficient β=0.658, p-value =0.000<0.05. The finding indicates that strategic innovation orientation and the mediating variable customer satisfaction of MFI have a significant relationship. The model was also statistically significant as shown by f-statistics =46.216, p-value= 0.000. Therefore, the second step for mediation testing was achieved.

Step 3: Customer Satisfaction Predicting Financial Performance of MFIs

In the third step, a regression model was conducted to test whether the mediating variable (customer satisfaction) was insignificant or significant. This relationship must be insignificant for complete mediation while significant for partially mediation.

Table 4.20c CS Predicting Financial Performance of MFIs

		B	Std. Error	Beta	T	Sig.
Coefficients	(Constant)	2.799	.281		9.945	.000
	Customer Satisfaction	.244	.072	.243	3.387	.001
ANOVA		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	19.029	1	19.029	11.470	.001[b]
	Residual	301.928	182	1.659		
	Total	320.957	183			
Model Summary	R	.243[a]				
	R Square	.059				
	Adjusted R Square	.054				
	Std. Error of the Estimate	1.28800				

a. Dependent Variable: MFI financial Performance

b. Predictors: (Constant), Customer Satisfaction

(Source: Field Data, 2021)

The results presented in Table 4.20c indicate that customer satisfaction had a coefficient $\beta=0.244$, p-value $=0.001<0.05$. The finding indicates that customer satisfaction (mediating variable) and financial performance of MFI had a significant relationship. The model was also statistically significant as shown by f-statistics =11.470, p-value= 0.001. Since the coefficient for customer satisfaction was significant, the criteria for partial mediation was achieved.

Step 4: SIO and CS Predicting Financial Performance of MFIs

The final step for test for mediation involved conducting regression analysis with strategic orientation (independent variable) and customer satisfaction (mediating variable) as predictors of financial performance of MFIs.

Table 4.20d SIO and CS Predicting Financial Performance of MFIs

		B	Std. Error	Beta	T	Sig.
Coefficients	(Constant)	.923	.368		2.508	.013
	Customer Satisfaction	.019	.072	.019	.265	.791
	Strategic Innovation Orientation	.730	.105	.499	6.955	.000
ANOVA		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	82.705	2	41.353	31.416	.000[b]
	Residual	238.251	181	1.316		
	Total	320.957	183			
Model Summary	R	.508[a]				
	R Square	.258				
	Adjusted R Square	.249				
	Std. Error of the Estimate	1.14730				

a. Dependent Variable: MFI financial Performance

b. Predictors: (Constant), Strategic Innovation Orientation, Customer Satisfaction

(Source: Field Data, 2021)

Table 4.20d results show that strategic innovation orientation had a coefficient β=0.730, p=0.000<0.05 while customer satisfaction had a coefficient β=0.019, p=0.791>0.05. Since strategic innovation orientation and customer satisfaction were all significant in the final model partial mediation was achieved. The study, therefore, failed to reject the null hypothesis; customer satisfaction has no notable impact on the interrelation between strategic innovation orientation and fiscal performance of MFIs in Nairobi City County, Kenya.

The study finding supported the findings of Hoe and Mansori (2018) who revealed that customer satisfaction fully mediated the relationship between commodity caliber and

loyalty among the Malaysian engineering industry. The study finding further corroborated the findings of Xie *et al*.(2017) that also found that fulfillment of customer's needs fully mediated the correlation between corporate social responsibility and financial performance.

A study by Khatoon *et al*. (2020) on the mediating effect of customer satisfaction on the link between electronic banking service quality and customer purchase intention established that consumer satisfaction mediated the relationship in Qatar's banking sector. This is in resonance with the findings of the current study on MFIs.

H_{02b}: Customer satisfaction has no significant mediating effect on the relationship between Strategic Innovation Orientation and Non-Financial Performance of MFIs in Nairobi City County, Kenya

The study pursued to test whether fulfillment of client satisfaction significantly moderated the link between strategic innovation orientation and non-fiscal achievements of MFIs in Kenya. The study used Baron and Kenny four steps for the test of mediation. In the test for mediation, a composite for dependent variables (non-financial performance) and independent variable (Strategic Innovation Orientation) was computed using mean.

Step 1: Strategic Innovation Orientation Predicting Non-Financial Performance of MFIs

In this first step, the study strived to establish if strategic innovation orientation significantly predicted the non-financial performance of MFIs. The end goal of this step was to test whether there existed an outstanding relationship to be mediated.

Table 4.21a Strategic Innovation Orientation Predicting Non-Financial Performance of MFIs

		B	**Std. Error**	**Beta**	**T**	**Sig.**
Coefficients	(Constant)	.897	.337		2.663	.008
	Strategic Innovation Orientation	.756	.088	.535	8.546	.000
ANOVA		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	85.611	1	85.611	73.033	.000[b]
	Residual	213.346	182	1.172		
	Total	298.957	183			
Model Summary	R	.535[a]				
	R Square	.286				
	Adjusted R Square	.282				
	Std. Error of the Estimate	1.08270				

a. Dependent Variable: MFI Non-financial Performance

b. Predictors: (Constant), Strategic Innovation Orientation

(Source: Field Data, 2021)

Results shown in Table 4.21a indicate that strategic innovation orientation had a coefficient $\beta=0.756$, p-value $=0.000<0.05$. The finding indicates that strategic innovation orientation and non-financial performance of MFI have a significant relationship. The model was also statistically significant as shown by f-statistics =73.033, p-value= 0.000. Therefore, the first step for mediation testing was achieved.

Step 2: Strategic Innovation Orientation Predicting Customer satisfaction of MFIs

In the second step, a regression analysis was conducted to test whether independent variables (strategic innovation orientation) significantly predicted the mediating variable (user satisfaction). The link between exposure variables (strategic innovation orientation) and the mediating variable (customer satisfaction) must be significant to achieve complete mediation.

Table 4.21b Strategic Innovation Orientation Predicting Customer Satisfaction of MFIs

		B	**Std. Error**	**Beta**	**T**	**Sig.**
Coefficients	(Constant)	1.244	.369		3.376	.001
	Strategic Innovation Orientation	.658	.097	.450	6.798	.000
ANOVA		Sum of Squares	df	Mean Square	F	Sig.
	Regression	64.820	1	64.820	46.216	.000[b]
	Residual	255.262	182	1.403		
	Total	320.082	183			
Model Summary	R	.450[a]				
	R Square	.203				
	Adjusted R Square	.198				
	Std. Error of the Estimate	1.18429				

a. Dependent Variable: MFI Non-financial Performance

b. Predictors: (Constant), Strategic Innovation Orientation

Source: Field Data (2021)

The results presented in Table 4.21b show that strategic innovation orientation had a coefficient $\beta=0.658$, p-value $=0.000<0.05$. The finding indicates that strategic innovation orientation and the mediating variable customer satisfaction of MFI have a significant

relationship. The model was also statistically significant as shown by f-statistics =46.216, p-value= 0.000. Therefore, mediation testing at the second stage was achieved.

Step 3: Customer Satisfaction Predicting Non-Financial Performance of MFIs

In the third step, a regression model was conducted to test whether the mediating variable (customer satisfaction) was insignificant or significant. This relationship must be insignificant for complete mediation while significant for partially mediation.

Table 4.21c Strategic Innovation Orientation Predicting Customer Satisfaction of MFIs

		B	**Std. Error**	**Beta**	**T**	**Sig.**
Coefficients	(Constant)	2.431	.262		9.289	.000
	Customer Satisfaction	.344	.067	.356	5.135	.000
ANOVA		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	37.833	1	37.833	26.369	.000[b]
	Residual	261.124	182	1.435		
	Total	298.957	183			
Model Summary	R	.356[a]				
	R Square	.127				
	Adjusted R Square	.122				
	Std. Error of the Estimate	1.19781				

a. Dependent Variable: MFI Non-financial Performance

b. Predictors: (Constant),Customer Satisfaction

(Source: Field Data 2021)

The results presented in Table 4.21c show that customer satisfaction had a coefficient β=0.344, p-value =0.001<0.05. The finding indicates that client experience (mediating variable) and non-financial performance of MFI have a significant relationship. The model was also statistically enormous as shown by f-statistics =26.369, p-value= 0.000.

Since the coefficient for customer satisfaction was significant, the criteria for partial mediation was achieved.

Step 4: Strategic Innovation Orientation and Customer Satisfaction predicting Non-Financial Performance of MFIs

Table 4.21d Strategic Innovation Orientation and Customer Satisfaction predicting Non-Financial Performance of MFIs

		B	Std. Error	Beta	T	Sig.
Coefficients	(Constant)	.724	.344		2.103	.037
	Customer Satisfaction	.139	.067	.144	2.074	.040
	Strategic Innovation Orientation	.665	.098	.470	6.767	.000
ANOVA		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	90.562	2	45.281	39.329	.000[b]
	Residual	208.395	181	1.151		
	Total	298.957	183			
Model Summary	R	.550[a]				
	R Square	.303				
	Adjusted R Square	.295				
	Std. Error of the Estimate	1.07301				

a. Dependent Variable: MFI Non-financial Performance

b. Predictors: (Constant), Strategic Innovation Orientation, Customer Satisfaction

Source: Field Data (2021)

The results in Table 4.21d show that strategic innovation orientation had a coefficient $\beta=0.665$, $p=0.000<0.05$ while customer satisfaction had a coefficient $\beta=0.139$, $p=0.040<0.05$. Since strategic innovation orientation and customer satisfaction were all significant in the final model partial mediation was achieved. The study, therefore, failed

to reject the null hypothesis customer satisfaction has no significant mediating effect on the nexus between strategic innovation orientation and financial performance of MFIs in Nairobi City County, Kenya.

The study findings supported the findings of Hoe and Mansori (2018) who uncovered that satisfaction of customers fully mediated the interrelation between product standards and loyalty among the Malaysian engineering industry. The study finding further corroborated the findings of Xie *et al*.(2017) that also discovered that client satisfaction wholly mediated the bond between corporate social responsibility and financial performance.

A study by Khatoon *et al*.(2020) on customer satisfaction mediating effect on the link between electronic banking service quality and customer purchase intention uncovered that client loyalty mediated the relationship among the Qatar banking sector. This is in resonance with the current study findings on MFIs. Further, the study resonates well with research by Solimun and Fernandes (2018) among telecommunication service products of Telkomsel in Indonesia who realized that user satisfaction acts as the mediator in the nexus between service quality, service orientation, and marketing mix strategy to customer loyalty.

Further, the study resonates well with research by Kumar (2017) who found out that meeting customer needs had a partial mediating effect on the interrelation between service quality and customer loyalty among the Telecom service industry in Delhi, India. However, the study was not in support of research by Eklof, Podkorytova, and Malova (2020) who found out that customer satisfaction had a significant effect on the firm

performance of Scandinavian banks. Customer satisfaction was used as an independent variable for the study and not a mediating variable like in the current study.

H_{03a}: Regulatory framework has no significant moderating effect on the relationship between Strategic Innovation Orientation and Financial performance of MFIs in Nairobi City County, Kenya

The study sought to test the hypothesis that regulatory framework has no significant moderating effect on the nexus between strategic innovation orientation and financial performance of MFIs in Nairobi City County, Kenya. Baron and Kenny (1986) two-step approach was applied.

Step One: Test for Moderating Effect of Regulatory Framework

In the first step, regression analysis was conducted with strategic innovation orientation and regulatory framework as predictor variable of financial performance of MFIs.

Table 4.22a SIO and RF as predictor variable of financial performance of MFIs.

		B	Std. Error	Beta	T	Sig.
Coefficients	(Constant)	.899	.364		2.468	.015
	Strategic Innovation Orientation	.706	.110	.482	6.446	.000
	Regulatory Framework	.049	.076	.048	.644	.521
ANOVA		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	83.157	2	41.578	31.647	.000b
	Residual	237.800	181	1.314		
	Total	320.957	183			
Model Summary	R	.509[a]				
	R Square	.259				
	Adjusted R Square	.251				
	Std. Error of the Estimate	1.14622				

a. Dependent Variable: MFI Financial Performance

b. Predictors: Predictors: (Constant), Regulatory Framework, Strategic Innovation Orientation

Source: Field Data (2021)

The results in Table 4.22a exhibit that strategic innovation orientation contained a coefficient β=.706, p=0.000<0.05 while regulatory framework (moderating variable) had a coefficient β=0.049, p=0.521>0.05. Since the coefficient for moderating variable was insignificant, the findings implied that regulatory framework was not an explanatory variable of financial performance of MFIs hence it could only moderate the relationship between strategic innovation orientation and financial performance of MFIs.

Step Two: Test for Moderating Effect of Regulatory Framework

In the second step, an interaction variable was computed using the product of strategic innovation orientation and regulatory framework. A regression model was conducted

using strategic innovation orientation and interaction variables (SIO*RF) as predictor variables.

Table 4.22b Interaction variables effect on Financial performance

		B	Std. Error	Beta	T	Sig.
Coefficients	(Constant)	1.819	1.030		1.766	.079
	Strategic Innovation Orientation	.408	.331	.278	1.230	.220
	Regulatory Framework	.204	.276	.200	.740	.460
	SIO*RF	.078	.082	.400	.955	.341
ANOVA		Sum of Squares	df	Mean Square	F	Sig.
	Regression	84.355	3	28.118	21.392	.000[b]
	Residual	236.601	180	1.314		
	Total	320.957	183			
Model Summary	R	.513[a]				
	R Square	.263				
	Adjusted R Square	.251				
	Std. Error of the Estimate	1.14650				

a. Dependent Variable: MFI Performance

b. Predictors: (Constant), Strategic Innovation Orientation

Source: Field Data (2021)

The results in Table 4.22b exhibit that strategic innovation orientation had a coefficient of $\beta=0.408$, p-value=0.220>0.05 while the interaction variable (SIO*RF) had a coefficient of $\beta=0.078$, p-value=0.341>0.05. Since the coefficient of interaction variables (SIO*RF) was insignificant, the study failed to reject the null hypothesis; the regulatory framework has an insignificant moderating effect on the interconnection between strategic innovation orientation and financial performance of MFIs in Nairobi City County, Kenya.

It concluded that the regulatory framework leads to a significant relationship with financial performance. However, the relationship was partial.

The findings imply that the regulatory framework is important because of the beneficial interconnection with financial performance but it has no moderation on the relationship between strategic innovation orientation and financial performance of the MFIs. This is in resonance with research carried out by Ndegwa *et al*. (2020) on the connection between sustainable competitive advantage and resource isolating mechanisms. As claimed by the study, the external environment had no significant moderating impact on the correlation between resource isolating mechanisms and sustainable competitive advantage among commercial banks in Kenya.

In addition, a study by Mutuku *et al*.(2019) used the regulatory framework as an explanatory variable and found out that the regulatory framework had no significant moderating effect. The study, however, does not resonate with studies by Mugo, Muathe, and Waithaka (2017) and Oketch *et al*. (2020) who found out that the legal environment mediated between psychological characteristics of a High-Level Management Team and overall enterprise performance.

H_{03b}: Regulatory framework has no significant moderating effect on the relationship between strategic innovation orientation and Non-Financial Performance of MFIs in Nairobi City County, Kenya

The study sought to test the hypothesis that regulatory framework has no moderatingeffect on the nexus between strategic innovation orientation and non-financial

performance of MFIs in Nairobi City County, Kenya. Baron and Kenny (1986) two-step approach was applied.

Step One: Test for Moderating Effect of Regulatory Framework

In the first step, regression analysis was conducted with strategic innovation orientation and regulatory framework as predictor variable of non-financial performance of MFIs.

Table 4.23a Strategic Innovation Orientation and Regulatory Framework as Predictor variable of Non- Financial Performance of MFIs

		B	Std. Error	Beta	T	Sig.
Coefficients	(Constant)	.852	.345		2.471	.014
	Strategic Innovation Orientation	.721	.104	.510	6.958	.000
	Regulatory Framework	.047	.072	.048	.650	.517
ANOVA		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	86.108	2	43.054	36.612	.000[b]
	Residual	212.849	181	1.176		
	Total	298.957	183			
Model Summary	R	.537[a]				
	R Square	.288				
	Adjusted R Square	.280				
	Std. Error of the Estimate	1.08442				

a. Dependent Variable: MFI Performance

b. Predictors: : (Constant), Regulatory Framework, Strategic Innovation Orientation

Source: Field Data (2021)

The results in Table 4.23a show that strategic innovation orientation had a coefficient $\beta=0.721$, $p=0.000<0.05$ while regulatory framework (moderating variable) had a coefficient $\beta=0.047$, $p=0.517>0.05$. Since the coefficient for moderating variable was

insignificant, the findings implied that regulatory framework was not an explanatory variable of non-financial performance of MFIs hence it could only moderate the link between strategic innovation orientation and non-financial performance of MFIs.

Step Two: Test for Moderating Effect of Regulatory Framework

In the second step, an interaction variable was computed using the product of strategic innovation orientation and regulatory framework. A regression model was conducted using strategic innovation orientation and interaction variable (SIO*RF) as predictor variables.

Table 4.23b Interaction variables effect on Non-Financial performance

		B	**Std. Error**	**Beta**	**T**	**Sig.**
Coefficients	(Constant)	3.043	.961		3.166	.002
	Strategic Innovation Orientation	.010	.309	.007	.032	.974
	Regulatory Framework	.556	.257	.566	2.161	.032
	SIO*RF	.187	.077	.986	2.438	.016
ANOVA		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	92.909	3	30.970	27.055	.000[b]
	Residual	206.047	180	1.145		
	Total	298.957	183			
Model Summary	R	.557[a]				
	R Square	.311				
	Adjusted R Square	.299				
	Std. Error of the Estimate	1.06991				

a. Dependent Variable: MFI Non-financial Performance

b. Predictors: (Constant), SIO*RF, Strategic Innovation Orientation, Regulatory Framework

Source: Field Data (2021)

The results in Table 4.23b show that strategic innovation orientation had a coefficient of β=0.010, p-value=0.974>0.05 while the interaction variable (SIO*RF) had a coefficient of β=0.187, p-value=0.016<0.05. Since the coefficient of interaction variables (SIO*RF) was significant, the study rejected null hypothesis regulatory framework has no significant moderating effect on the nexus between strategic innovation orientation and non-financial performance of MFIs in Nairobi City County, Kenya.

The findings imply that the regulatory framework is important for it has a moderating effect on the correlation of strategic innovation orientation and non-financial performance ofthe MFI. This coupled with resonance in studies by Mugo, Muathe, and Waithaka (2017) and Oketch *et al*. (2020) who found out that the legal environment had a damping action on the relationship between Top-level Management Team psychological characteristics and organizational performance.

However, the study was not in support of the study by Ofoeda, Gariba, and Amoah (2016) who established that regulatory framework had a significant effect on the performance of Ghanian non-bank financial institutions and regulatory framework was an explanatory variable and not a moderator. Also, the findings did not corroborate with research by Amma *et al*.(2019) who found out that the influence of the regulatory framework on the performance of MFIs in India was significant but the regulatory framework was an independent variable.

Table 4.24: Summary of Test of Hypotheses

Summary of the test of hypotheses for the study are as shown in Table 4.24 below;

Hypothesis	Analysis Results	Conclusion
$H_{01(a)}$:	β=0.157, p-value=0.034<0.05	
$H_{01(b)}$:	β=0.222, p-value=0.003<0.05	Rejected H_{01}(a) and H_{01}(b)
$H_{02(a)}$:	β=0.075, p-value=0.246>0.05	Failed to Reject H_{02}(a) and H_{02}(b)
$H_{02(b)}$:	β=0.102, p-value=0.111>0.05	
$H_{03(a)}$:	β=0.184, p-value=0.009<0.05	Rejected $H_{03(a)}$ and $H_{03(b)}$
$H_{03(b)}$:	β=0.178, p-value=0.010<0.05	
$H_{04(a)}$:	β=0.348, p-value=0.000<0.05	Rejected $H_{04(a)}$ and$H_{04(b)}$
$H_{04(b)}$:	β=0.225, p-value=0.001<0.05	
$H_{05(a)}$:	Partial mediation was achieved	Rejected $H_{05(a)}$ and $H_{05(b)}$
$H_{05(b)}$:	Partial mediation was achieved	
$H_{06(a)}$:	Moderation was not achieved achieved	Failed to reject $H_{06(a)}$
$H_{06(b)}$:	Moderation was achieved	Rejected $H_{06(b)}$

Source: Field Data (2021)

4.6 Qualitative Data Analysis

Qualitative data was gathered from secondary sources and directly through the questionnaire's semi-structured questions. These were then analyzed based on common themes as per the research variables. Based on the respondent's product modernization orientation, organizational innovation orientation, financial innovation orientation, market innovation orientation, and customer satisfaction are important in the performance of MFIs. While the regulatory framework is important in regulating the performance of MFIs.

The respondents considered product innovation orientation as being a contributing factor in the performance of MFIs. These findings align with the suggestion made by Koech and Makori (2014) and Ibrahim (2016) that an organization's production is improved when it makes use of product innovation orientation through having new products, improved products, and quality products. Furthermore, organizational innovation orientation is important in the performance of MFIs since it ensures that new routines, new procedures, and new capabilities are enhanced within the organization, as suggested by Kiende *et al*. (2019).

Besides, it was noted that financial innovation orientation through technological processes, ATM, internet, mobile banking was influential in improving the performance of MFIs, as noted by Atakli and Asiedu (2020). Market innovation orientation through new media or techniques, sales channels, and delivery channels was important in increasing the size of the market reach for MFIs, as highlighted by Rajapathirana and Hui (2018). Besides, customer satisfaction helps improve the performance of MFIs as the number of customers increases, as echoed by Otto *et al*. (2020).

Moreover, the regulatory framework helps in the regulation of MFIs and their progress in line with performance while strategic innovation orientation plays a critical role in advancing the performance of MFIs (Musau *et al*., 2017; Udriyah *et al*., 2019).

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter sums up the study in line with the study objectives. It includes a conclusion on each of the objectives with a short commentary on the study's contribution to knowledge. The researcher recommends areas related to the study requiring further investigation.

5.2 Summary

Micro Finance Institutions contribute significantly to the economic development of Kenya. Offering financial services to the low cadre people in society and those who cannot afford commercial bank services forms part of the critical stakeholders role in achieving the Vision 2030 economic goal and reducing poverty. The government has laid out various reforms to ensure Micro Finance Institutions' stable performance. Despite these reforms, Micro Finance Institutions have recorded high losses and negative return on assets, few customers and and high employee turnover which affects their overall performance.

The study aimed at determining the effect of strategic innovation orientation on the performance of MFIs. Specifically, it established the impact of product innovation orientation, financial innovation orientation, organizational innovation orientation together with market innovation orientation on both aspects of non-financial and financial

performance of the MFIs operating in Nairobi City County, Kenya. Besides, the study assessed the mediation of customer satisfaction and the moderating influence of regulatory frameworks on the relationship between strategic innovation orientation of MFIs operating in Nairobi City County, Kenya, with a critical focus on the financial and non-financial aspects of performance.

The research was anchored on various theories, Balanced Score Card (BSC) as the main theory and complemented by Resource Based View, Unified Theory of Acceptance and Use of Technology, Dynamic Capabilities, Institutional and Innovation theories, as they related with the three constructs focused on by the research. The applied research designs were descriptive and explanatory. A proportionate stratified and simple random sampling technique was used. Semi-structured questionnaires were self-administered to collect quantitative and qualitative data, while secondary data was collected from credible documents.

Inferential and descriptive statistics were employed in order to test the hypothesis at a 0.05 level of significance. The findings revealed that product innovation orientation, financial innovation orientation, and market innovation orientation positively and statistically significant affected the financial and non-financial performance of MFIs. Organizational innovation orientation effect on the financial and non-financial aspects of the performance of the MFIs was not significant.

Customer satisfaction had a partial statistically significant mediating effect on the nexus between strategic innovation orientation and MFIs performance in financial and non-

financial aspects. The regulatory framework did not statistically significant moderate the nexus between strategic innovation orientation and the MFI's financial performance. The regulatory framework, however statistically significant, moderated the relationship between strategic innovation orientation and the non-financial performance of MFIs.

5.3 Conclusion

Strategic innovation orientation is an essential and omnipresent concept in the management of organizations. A continuum of strategic innovation orientation is thus key for firms performance. For a detailed comprehension of the performance concept, both the financial and non-financial measures were used. Various constructs of strategic innovation orientation; product innovation orientation, financial innovation orientation and market innovation orientation are fundamental for effective MFIs performance; financial and non-financial. Customer satisfaction and regulatory framework are critical for facilitating progress emanating from the nexus between strategic innovation orientation and performance for optimal gains of MFIs.

5.4 Contribution of the Study to Knowledge

The overarching aim of the study was to investigate the effect of strategic innovation orientation on the performance of MFIs in Nairobi City County, Kenya. It revealed that strategic innovation orientation which is a concept that entails product innovation orientation, financial innovation orientation, and market innovation orientation, influences financial and non-financial performance. This study thus contributes to the empirical literature by proving that strategic innovation orientation positively influences the financial and non-financial performance of MFIs in Nairobi City County, Kenya.

In addition, the study had the objective of establishing the mediating and moderating effect of customer satisfaction and regulatory framework, respectively, on the nexus between strategic innovation orientation and the MFIs performance; both financial and non-financial. Customer satisfaction had a partial mediating effect on the relationship. This adds to the body of knowledge on the customer satisfaction concept. Further, the regulatory framework had different moderation effects on the relationship between strategic innovation orientation and the performance of MFIs. Financial performance, however, was not moderated, while non-financial performance was moderated. This varied moderating and mediating effects brings about an advancement in widening the scope for academicians.

Further, the study contributes to the strategic management pool of knowledge by providing empirical data supporting financial and non-financial metrics in assessing performance. The independent analysis of financial and non-financial measures widens the advancement in understanding the Balanced Score Card into detail by academicians.

The study supports the propositions of Resource-Based View, Unified Theory of Acceptance and Use of Technology, Dynamic Capabilities, Institutional Theory, Theory of innovation, and Balanced Score Card. The strategic innovation orientation construct is a vital resource that firms need to leverage to enable optimal financial and non-financial performance.

5.5 Recommendations for Policy and Practice

Based on the findings of the study, a myriad of policy options for adoption and practical implementation by MFIs and other organisations operating in Kenya are recommended

since the environment within which organisations operate is riskier, volatile, uncertain, complex and ambiguous. Further, the changing pace of technological advancement demands strengthening the conditions and galvanizing the strategic development and execution. Thus, the firm's strategic intelligence cohort should proactively integrate strategic innovation orientation tenets.

Product innovation orientation influenced performance positively and significantly. Organisations strategic and operational intelligence cohorts need to be open to innovations and produce new products, improved products, and quality products that match the consumer needs and hence their satisfaction. Product development managers within firms need to develop innovative products that match customer needs as this leads to improved performance.

Firm policies should be customer-oriented at all times as they are key actors in evaluating performance. Leveraging on customer satisfaction ensures firms increase positively in their performance; financial and non-financial. In addition, it gives firms a competitive edge within the broad market. Academicians need to understand the broad scope of product innovation orientation construct as it is a driver of performance growth.

On the other hand, financial innovation orientation positively and significantly influenced performance. The government needs to focus on financial innovation orientation effects on monetary policies through indepth trend analysis. Strategic managers need to have an intent or philosophy that drives advancement in financial innovation orientation. Organizations' operational managers need to have automation, mobile banking, internet banking, and loan appraisal services that ensure efficiency and effectiveness in service

delivery within organisations. These activities are essential, especially during the time of COVID-19 pandemic, as they make organisations achieve a breakthrough, work optimally, leading to improved performance and remain in business. Moreover, these activities are key for resilience of organisations.

Further, market innovation orientation positively and significantly influenced performance. The government needs to develop policies that address advancement in marketing innovation orientations by firms as this helps improve the firm performance. The organisations' operational managers need to have new marketing media, new sales channels, and new delivery channels that competitors in the industry do not exploit to have a large reach of customers translating to improved performance.

Strategic managers need to have a philosophy that drives and hones advancement in market innovation orientation. Online marketers for firms can have a broader impact on the performance, especially during the COVID-19 pandemic era. Marketing through various platforms provides a competitive edge leading to the satisfaction of consumers, especially during the COVID-19 pandemic when customers' needs are a first-class priority. Academicians need further to understand the broad scope of market innovation orientation construct from cultural and behavioural perspectives as this will enable them to advise on policies remarkably.

Moreover, customer satisfaction partially mediated the nexus between strategic innovation orientation and performance. Government should focus on policies that protect the customers' needs while organisations need to make sure their customers are satisfied with their services as this leads to the organizations' financial performance

growth through an increase in the customer base. This makes customers a strategic lever that firms need to focus their efforts on. Firm policies by strategic managers should be customer-oriented as they are fundamental actors in measuring performance. Leveraging on customer satisfaction by firms strategic and operational managers ensures firms increase positively in their performance. Academicians must comprehend the broad scope of suitable customer satisfaction constructs further as an explanatory, mediating or dependent variable.

Finally, the regulatory framework was found to have a different moderating consequence in the relationship between strategic innovation orientation and performance. This demands governmental and other regulatory bodies like AMFI to review their regulatory framework policies to address the market's current needs for a fair competitive environment.

Strategic and operational managers of firms need to clearly understand and update themselves on the regulatory framework that controls the firm's performance in the external environment. Academicians need to understand the broad scope of regulatory framework constructs further as an explanatory, moderating or dependent variable. During the COVID-19 pandemic, the regulations help ensure the health crisis does not turn into a financial crisis because of lenders' behaviour like MFIs and other established banks.

5.6 Suggestions for Further Study

The study investigated the effect of strategic innovation orientation on the performance of MFIs in Nairobi City County, Kenya. The research also sought to determine the

mediating and moderating effects of customer satisfaction and regulatory framework on the nexus between strategic innovation orientation and performance. The findings and conclusions of the study are thus limited to regulated MFIs in Nairobi City County, Kenya. Any future research should help validate the findings and conclusions of studies similar to this, but in other sectors like health, tourism, aviation, and agriculture.

Customer satisfaction was the mediating variable while regulatory framework was the moderating variable. Other moderating and mediating variables can be used to assess the nexus between strategic innovation orientation and performance. Besides, the current research did not factor firm size, competitive advantage, and firm culture, affecting the nexus between strategic innovation orientation and performance.

The researcher utilized online google forms for primary data collection that can be biased and inaccurate. The effect of utilizing online google forms for data collection can be addressed by using telephone interviews to clarify from the respondents, thus reducing errors. In addition, the current study was cross-sectional and thus, to enrich the study, there is a need for a longitudinal study.

Future studies can be conducted based on the lagged and same period (current) satisfaction aspects of customer satisfaction to bring about an in-depth understanding of the customer satisfaction concept. Besides, studies can be conducted on the factors limiting the adoption of strategic innovation orientations among MFIs or banks. Inaddition, the study adopted financial and non-financial performance metrics indepedently, future studies can be conducted based on a t-test to establish the significant differenxe between the two levels of performance.

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APPENDICES

Appendix I: Letter of Introduction

Victor Mwendwa Muithya

(vkeymm@yahoo.com)

P O Box 40668-00100

Nairobi, Kenya

12 December 2020

Dear Sir/ Madam,

RE: AUTHORITY FOR DATA COLLECTION

I am a PhD student at Kenyatta University in the school of Business undertaking a Doctoral Thesis on **"Strategic Innovation Orientation and Performance of Micro Finance Institutions in Nairobi City County, Kenya".**

To accomplish this thesis, I kindly request for your assistance in collecting data by filling the research questionnaire. The information that you will provide will be used for academic purposes only and will be treated with utmost confidence. A copy of final report will be availed to you upon request.

Yours sincerely,

Victor M Muithya

Appendix II: Questionnaire

Section A: General information

Data collected through this questionnaire is solely for academic purposes. The study seeks to establish **"Strategic Innovation Orientation and Performance of Micro Finance Institutions in Nairobi City County, Kenya".** All information gathered will be handled with strict confidence. Your name or identification should not be appended to the questionnaire.

Answer all questions by filling in the blank spaces or ticking the applicable option.

1. Kindly indicate your gender.

   a) Male { }

   b) Female { }

2. How many years have you worked in this Micro Finance Institution?

   a) 1-5years { }

   b) 610 years { }

   c) 11 years and above { }

3. What is your position in this Micro Finance Institution?

   a) Operations Manager { }
   b) Marketing Manager { }
   c) Innovation (R&D) Manager { }
   d) Human Resource Manager { }

Section B: Product Innovation Orientation

4. Please indicate your level of agreement with statements given below.

	Strongly disagree	Disagree	Moderate	Agree	Strongly Agree
	(1)	(2)	(3)	(4)	(5)
The Micro Finance Institution offers quality loan products.					
The Micro Finance Institution offers various loan products.					
The Micro Finance Institution values its loan products.					
The Micro Finance Institution is able to offer new loan products.					
The Micro Finance Institution is flexible in modifying its loan products.					
It is not easy for the Micro Finance Institution customers to change to other Micro Finance Institution.					
The Micro Finance Institution is able to evaluate new ideas from customers, suppliers etc and take them into account in product development.					

5.

Do you believe product innovation orientation is important? Yes { } No { }

Kindly explain

Section C: Organizational Innovation Orientation

6. Please indicate your level of agreement with statements given below.

	Strongly disagree	Disagree	Moderate	Agree	Strongly Agree
	(1)	(2)	(3)	(4)	(5)
The Micro Finance Institution organizational structure is balanced and clear.					
The Micro Finance Institution has routines that guide the daily operations.					
The Micro Finance Institution is open to new routines.					
The Micro Finance Institution has processes that guide the daily operations.					
The Micro Finance Institution adapts new process designs.					
The Micro Finance Institution has procedures that guide the daily operations.					
The Micro Finance Institution procedures are neither clear nor easily understood by all.					
The Micro Finance Institution values networking with other Micro Finance Institutions.					
The Micro Finance Institution has frequent interactions with other Micro Finance Institutions to acquire new knowledge.					

7. Do you believe organizational innovation orientation is important? Yes { } No { }

Kindly explain

Section D: Financial Innovation Orientation

8. Please indicate your level of agreement with statements given below.

	Strongly disagree	Disagree	Moderate	Agree	Strongly Agree
	(1)	(2)	(3)	(4)	(5)
The Micro Finance Institution mobile services are reliable.					
Mobile services lead to improved Micro Finance Institution performance.					
The number of customers using mobile services has increased in the last three years.					
The Micro Finance Institution automation services are reliable.					
Automation services lead to improved Micro Finance Institution performance.					
The Micro Finance Institution internet services are reliable.					
The number of customers using internet services has increased in the last three years.					
Utilisation of internet services have led to improved Micro Finance Institution					

performance.					
The Micro Finance Institution loan appraisal method is customer friendly.					

9. Do you believe financial innovation orientation is important? Yes { } No { }

Kindly explain

Section E: Market Innovation Orientation

10. Please indicate your level of agreement with statements given below.

	Strongly disagree	Disagree	Moderate	Agree	Strongly Agree
	(1)	(2)	(3)	(4)	(5)
The Micro Finance Institution has a wide market for its products.					
The Micro Finance Institution market for its products is diversified.					
The Micro Finance Institution has a robust marketing media.					
The Micro Finance Institution marketing media is effective.					
The Micro Finance Institution marketing media is reliable.					
The Micro Finance Institution promotes its products through reliable delivery channels.					

The Micro Finance Institution has reliable sales channels.					
The Micro Finance Institution has effective sales channels.					

11. Do you believe market innovation orientation is important? Yes { } No { }

Kindly explain

Section F: Regulatory framework

12. Please indicate your level of agreement with statements given below.

	Strongly disagree	Disagree	Moderate	Agree	Strongly Agree
	(1)	(2)	(3)	(4)	(5)
Prudential guidelines help in regulating the conduct of Micro Finance Institutions.					
Prudential guidelines regulating the conduct of Micro Finance Institutions are clear.					
The capital thresholds in the Micro Finance Institution sector are clearly set.					
Liquidity thresholds in the Micro Finance Institution sector are clearly set.					
Minimum investment thresholds are clearly set thresholds in the Micro Finance Institution sector.					

Loan provisioning thresholds are clearly set in the Micro Finance Institution sector.					
The Micro Finance Institution asset quality is clear.					
There is sound level of competition between Micro Finance Institutions in the sector.					
Non - prudential guidelines help in regulating the conduct Micro Finance Institutions.					
Pricing by CBK for Micro Finance Institutions is clear.					
Moral suasion tools (threats) by Central Bank of Kenya have been effective in Micro Finance Institutions behavior control.					
Government laws help in regulating the conduct of your Micro Finance Institution.					
Government laws on regulation of Micro Finance Institutions are rigid.					
Government laws on regulation of Micro Finance Institutions ensure enforcement of Micro Finance Institutions behaviour.					

Adherence to Government laws on regulation of Micro Finance Institutions has led to increase in number of customers in our Micro Finance Institution.					

13. Do you believe regulatory framework is important? Yes { } No { }

Kindly explain

Section G: Performance of Micro Finance Institution

14. Please indicate your level of agreement with statements given below.

	Strongly disagree	Disagree	Moderate	Agree	Strongly Agree
	(1)	(2)	(3)	(4)	(5)
The Micro Finance Institution enjoys high number of customers.					
The number of customers has increased for the last three years.					
The Micro Finance Institution has few complaints from its employees.					
Employee absenteeism is minimal in our Micro Finance Institution.					
Employees within the Micro Finance Institution are honest.					
The Micro Finance Institution has well trained and skilled employees.					

The Micro Finance Institution has recorded an increased Return On Assets over past financial year.					
The Micro Finance Institution has an increased number of non-performing loans.					

THANK YOU

Appendix III: Document Review Guide

1. CBK reports on regulated MFIs between 2017- 2020.

2. CBK Bank Supervision Annual Report 2017-2020.

3. AMFI published reports 2017-2020.

4. Employee Survey Index Reports 2017-2020.

5. Financial Reports published by regulated MFIs 2017-2020.

6. Customer Survey Index Reports 2017-2020.

Appendix IV Letter of Authorization

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **663844**

Date of Issue: **12/October/2020**

RESEARCH LICENSE

This is to Certify that Mr.. Victor mwendwa Muithya of Kenyatta University, has been licensed to conduct research in Nairobi on the topic: "Strategic Innovation Orientation and Performance of Micro Finance Institutions in Nairobi City County, Kenya". for the period ending : 12/October/2021.

License No: **NACOSTI/P/20/7016**

663844

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

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