

**RELATIONSHIP BETWEEN MARKET SENSING PRACTICES AND
PERFORMANCE OF FINTECH COMPANIES IN KENYA**

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DECLARATION

I declare this research project is my original work and has not been submitted for examination in any other university

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This research project has been submitted for examination with my approval as the university supervisor.

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DEDICATION

To my Dearly Loved Parent, Major (Rtd.) David M. Ndeti for his immeasurable love, support and utmost belief in my ability to achieve the very best and most in life.

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ABSTRACT

A majority of market sensing capabilities studies have either been carried out in different contexts or the conceptualizations were different. The current study was focused on establishing the relationship between market sensing practices and performance of fintech companies in Kenya. The main underlying theories in the study were the technology acceptance model and the dynamic capabilities. A cross-sectional survey together with a census approach were the choice design. The study focused on the 38 registered Fintech firms. Primary data was collected using structured questionnaire from senior managers. Simple regression technique was used to evaluate the relationship between the independent variables, Learning Orientation, Organizational System, Market Information and Organizational communication and firm performance as the dependent variable. The results include analyses of the model summary, ANOVA and regression coefficients. The findings indicated that 62% of the variation in firm performance was explained by learning orientation, organizational system, market information, and organizational communication which is a significant outcome in spite of the observation that learning orientation and organizational system are inversely related to firm performance.

However, it was found that the overall effect of market sensing capability on firm performance was positive and statistically significant. This means that Fintech companies in Kenya are likely to realize increased performance if they develop and apply market sensing capabilities as a market facing strategy. The study concluded that market sensing influences firm performance in the Fintech industry in Kenya. As such, firms that have robust market sensing practices are likely to register better outcomes.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

A competitive advantage may be created by using market sensing as a core skill. Sensing is the first capability to take into consideration while building dynamic capabilities or a firm's long-term competitiveness because of the increased unpredictability that comes with digitalization (Monteiro et al., 2017). An organization's long-term responsiveness and performance is determined by its ability to recognize opportunities and risks in the business environment. Companies often invest large amounts of money, time and alternative resources in researching recent product ideas or spotting threats. These investments transform the creation, application, and recombination of each new and recent knowledge. Therefore, the gift of spotting, or the ability to recognize market opportunities and threats, can be an important talent that can impact a business's performance to keep pace with the ever-changing environment. . (Monteiro et al., 2017).

The Technology Acceptance Model (TAM) and the Dynamic Capabilities theory served as the study's foundations (DCT). These two expound on the connection between performance and market sensing ability. The TAM contends that when consumers are presented with new technological breakthroughs, their selection is influenced by perceived utility and ease of use rather than actual system utilization (Davis, 1989). Users will be motivated to utilize new technology if they feel it will benefit them both immediately and down the road, which will eventually lead to improved performance of a business. Perceived ease of use is a measure of people's confidence in a system. A firms capabilities (Day, 1994), are intricately collected capabilities and group skill that are used in organizational processes to enable better

coordination of functional activities and are ingrained throughout the structure of the organization. As a consequence, businesses that are better able to anticipate changing circumstances and adapt to market needs will ultimately gain a competitive advantage and perform better.

Fintech companies integrate technology to offer financial solutions to their customers. Globally, fintech companies have become dominant players in the financial sector. They have been hailed as the solution to financial inclusivity. In Kenya, currently, there are 38 registered fintech companies. In an economy that is said to be overbanked (with 42 operational banks), the addition of fintech companies serves to intensify competition. In an attempt to survive the fierce competition, firms that have innovative offerings remain ahead of the competition and become attractive. Innovation calls for developing information gathering and dissemination mechanisms that can inform the direction of innovation in the company. The expectation is that developing marketing sensing capabilities will enhance the performance of the company.

1.1.1 Market Sensing Practices

Market sensing is essentially the capacity of a corporation to foresee future market development and detect new prospects based on data received from its business environment (Mu, 2015). The notion of market sensing is stated as the ability to learn about the market on an ongoing basis (Day, 2002). Other researchers believe market sensing to be an important component of dynamic abilities in the context of detecting chances. Detecting skills in a firm's commercial situation. Teece (2007) and Lin and Wang (2015) suggest that market

sensing build the framework for creating dynamic skills, such as sensing scientific and technology innovation, customer demand, and market segmentation.

Market sensing helps a corporation to transition from managing under uncertainty to a systematic risk analysis strategy, avoiding prospective losses and creating better results. As a result, market sensing skills supports a business in becoming sensitive to market trends and opportunity discovery (Mu, 2015). Market sensing strategies look at data about customers, competitors, events and changes within the business to gather market insights and take strategic actions through sensing to receive and create meaning to the business environment. A type of perception that involves filtering market information inside and outside the company, examining its meaning, and extracting unfair effects can reduce the uncertainty of business operations, exploit and increase opportunities for explosive business innovation (Lin and Wang, 2015).

Market sensing has been described as a multi-component construct by academics. As a result, in order to create an integrative market sensing capacity, this study adopts Ndambuki's (2018) market sensing practices, which is operationalized as learning orientation, organizational system, market information, and organizational communication.

1.1.2 Firm Performance

Success has no agreed-upon definition in the body of literature now in existence, and the metrics used to measure firm performance are not consistently developed and defined. In the past, academics and researchers have defined firm performance based on particular study

purpose (Langfield-Smith and Chenhall, 2007). Performance, in the words of Ukko (2009), may include both the actual results or outputs of a given activity as well as how it is carried out and its potential. The three performance aspects are monetary performance, business performance, and organizational effectiveness.

Business performance incorporates non-financial metrics in addition to monetary performance indicators, while financial performance emphasizes the use of fundamental results-based financial ratios (Venkatraman and Ramanujam, 1986). Performance can also be assessed against different frameworks, such as the Balanced Scorecard, financial, customer, internal processes, learning and growth, or level of performance. neutral satisfaction, strategies, processes, capabilities and stakeholder input. Performance can also be assessed in terms of efficiency and strength (Bourne, Neely, Mills & Platts, 2003).

In keeping with Kaplan and Norton (2004), organizational performance should be viewed as a multidimensional structure that includes financial, operational, and customer performance ratings. Venkatraman and Ramanujam (1986) use financial indicators (pure economic indicators), non-economic indicators (such as market share), development or production efficiency, and firm effectiveness to justify performance indicators. For the purposes of this study, financial and non-financial aspects of company performance are considered.

1.1.3 Fintech Companies in Kenya

Fintech is a short version of financial technology, and it refers to an industry made up of businesses that employ technology to supply financial services more efficiently. Digital

wallets, payment technology,, and mobile banking are some examples of technology used in financial transactions. These are intended to provide advantages and increase the efficiency of financial transactions. They also aid in the reduction of client expenses (Ngunjiri, 2017). Brazil, Mexico, South Africa, Colombia, and Uganda were among the countries that came close to Kenya in this respect. Branch, Cellulant, PesaPal, M-Pesa, Tala, and EastPesa, among others, are among the 39 Fintech companies listed by Fintech Africa. These companies give a variety of items to the market, but they are becoming convergent in the types of products and services they deliver to clients (Ngunjiri, 2017).

Kenya is one of the most competitive Fintech marketplaces in the world, with so many companies in the same sector and in the same nation. It's difficult to measure these firms' market shares since they provide so many diverse services. M-Pesa, on the other hand, is the most extensively utilized since it is incorporated into a mobile platform and is the country's most popular telecommunications business. The remainder of the firms aim to set themselves apart from M-Pesa as much as possible in order to get market share. To ensure corporate survival in the short and long term, this job is assigned to both business level managers and strategic management levels. For the sake of competition and performance, these companies have invested in ensuring that qualified personnel fulfill critical managerial jobs. The majority of Fintech businesses in Kenya provide unsecured loans, while some offer a wider range of goods that go beyond interest-free loans to Kenyans.

1.2 Research Problem

Market sensing may be used as a core competency, establishing the foundation for a firm's competitive advantage. The environment, holding other factors imports unpredictability into business operations and it therefore makes sense for the management to establish information gathering mechanisms (Monteiro et al., 2017). The ability of a company to identify risks and opportunities emanating from its environment is correlated to its performance (Blythin & Van Cooten, 2017). In the long run, a company's success is determined by its response to opportunities and threats in the business environment (Kumar, 2015). Businesses often invest a lot of time, money, and other resources in looking for new product ideas or spotting risks, but with the right use of market sensing tools, this activity may be made to be more manageable (Day, 2014). These investments enable the generation, application, and recombination of both new and old knowledge. As a consequence, sensing aptitude, or the capacity to recognize market opportunities and threats, is a crucial skill that might impact a company's performance in order to keep up with the changing environment (Monteiro et al., 2017).

Globally, fintech companies have become dominant players in the financial sector. They have been hailed as the solution to financial inclusivity. In Kenya, currently, there are 38 registered fintech companies. In an economy that is said to overbanked (with 42 operational banks), the addition of fintech companies serves to intensify competition. Innovation calls for developing information gathering and dissemination mechanisms that can inform the direction of innovation in the company. The expectation is that developing marketing sensing capabilities will enhance the performance of the company.

Confusion has resulted from studies on the connection between marketing sensing techniques and performance. The conceptual, contextual, and methodological variances may be to blame for this. Lindblom et al. (2008) found that the majority of the retail entrepreneurs under study had rather well-developed market-sensing skills in their online survey of 226 K-retailers from the Finnish K-alliance about the impact of market-sensing capacity on growth and profitability. It was discovered that the capacity to sense the market and business expansion had a tenuous positive association. The association between market sensing procedures and SMEs' performance was not statistically significant, according to Ardyan's (2016) investigation into the mediating role of product innovation. Ahmed (2017) found a substantial association between market sensing and market performance in a research on the mediating influence of information distribution. Ndambuki conducted research on the mediating role of market sensing capacities on the link between key account management practices and commercial banks' performance locally (2018). The research discovers a strong and favorable link. Okwemba (2018) demonstrated a statistically significant association in a research on the impact of strategic market sensing capabilities on the performance of telecoms enterprises in Kenya. The bulk of these research either used other conceptualizations or different settings from the one used in the present study, which aims to determine the link between market sensing methods and performance of Fintech businesses in Kenya.

1.3 Research Objectives

The objective of this study is to establish the relationship between market sensing practices and performance of fintech companies in Kenya.

1.4 Value of the Study

The outcomes of this study will contribute to theoretical perspectives, academics, policymakers and the Kenyan government, as well as the management of Fintech enterprises in Kenya. It is important for the firms to make decisions that could impact the performance of the Fintech firms on the basis of sound knowledge of the underlying issues. Market sensing one such issue that can spell success or failure of a firm in a highly competitive environment. Without substantive knowledge about the dynamics of Fintech environment, effective policies can hardly be made in the best interest of such firms. The present vacuum associated with limited knowledge on such critical variables therefore needs to be filled. Hence the necessity of this study.

CHAPTER TWO : LITERATURE REVIEW

2.1 Introduction

Chapter three looks to address the theoretical underpinnings in market sensing practices as an important factor in firm performance. This theories includes the Technology Acceptance Model and the Dynamic Capability Theory. This is followed by a review of market sensing practices and firm performance literature followed by a summary of the chapter and a conceptual framework.

2.2 Theoretical Framework

2.2.1 Technology Acceptance Model

Davis presented this notion of technology adoption model in 1986. It is focused with perceptions rather than actual system usage, and says that when new technological developments are provided to clients, perceived ease of use and perceived utility effect their choice (Davis, 1989). Perceived ease of use is the degree of confidence that people put in a system, and if consumers think that a new technology will benefit them in the near and long term, they will be motivated to utilize it.

The Technology Acceptance Model asserts that the system's genuine usage is defined by each user's behavioral reason for use and is impacted by their perception of the system. The idea also suggests that one's attitude toward new technology is strongly tied to its usefulness as well as the system's simplicity (Lim & Ting, 2012). Technology Adoption Model supporters argue that consumer intents drive technology and functionality acceptance, and

that these intentions impact the customer's view of the system (Mojtahed, Nunes & Peng, 2011).

Technology Acceptance Model also investigates how people feel about a given system. It explains why a consumer may or may not adopt to use a particular technology. According to the principle, the technology being embraced should be simple to use and provide some value to the consumer. This means that the extent to which Fintech solutions are used in Kenya is determined by their ease of use and the benefits they provide to users (Lule, Omwansa & Waema, 2012).

Technology Acceptance Model has been used to analyze a wide range of information technologies in various contexts, and a cumulative tradition has already emerged in this field of study. The majority of Technology Acceptance Model studies have been empirical investigations that have had remarkable success with the survey approach. Technology Acceptance Model is a well-established model that has been tested in a variety of settings. However, in order to ensure that varied sample profiles do not have a detrimental effect on the findings, it must be empirically evaluated for invariance across different respondent subgroups. Unfortunately, this is yet to be achieved (Lai and Li, 2005). Thus, it presents one of the challenges that Fintechs have to grapple with.

2.2.2 Dynamic Capabilities Theory

The senior management team's position that company evolution plays a substantial role in producing dynamic capabilities is represented in the dynamic capabilities view (Teece et al.,

1997). (Teece et al., 1997). Dynamic capabilities, according to Ambrosini, Bowman, and Collier (2009), are constituted of four processes: asset reconfiguration, transformation, and recombination. Leveraging is concerned with the replication of a process or system that is running in one part of a corporation into another area, or expanding a resource by deploying it into a new domain. Learning allows for effective and efficient job execution, while integration is concerned with the firm's capacity to integrate and coordinate its assets and resources, resulting in the formation of a new resource base.

Capabilities, according to Day (1994), are complex bundles of skills and collective learning, exercised via organizational processes that offer superior coordination of functional activities and are deeply buried within the fabric of the organization. As a consequence, organizations which are better positioned to adapt to market needs and predict changing circumstances will have a competitive advantage and superior performance in the long term.

Dynamic capabilities, according to Hou (2008), are a collection of resources such as technology, skills, and knowledge-based resources. Helfat & Peteraf (2009) add to this viewpoint by defining dynamic capabilities as a company's capacity to actively grow, expand, or change its resource base. The emphasis is on an organization's capacity to develop new resources, renew or alter its resource mix in order to offer a continual stream of innovative goods and services to its target consumers in a changing environment.

Capabilities, according to Eisenhardt and Martin (2000), are complex coordinated patterns of skills and knowledge inherent in organizational routines that are identifiable from other

organizational processes by their capacity to perform effectively in contrast to rivals. They also argue that, since markets are dynamic, inter-firm performance variation over time is explained by the capacity by which firms' resources are collected and utilised in a manner that meets the firm's market environment. Dynamic capabilities are characterized by Barreto (2010) as a firm's capacity to systematically tackle difficulties, as indicated by its tendency to perceive opportunities and threats, make timely and market-oriented choices, and alter its resource base. According to these opinions, market orientation and marketing strategies may be regarded one of the internal characteristics that allows firms to execute their day-to-day tasks more efficiently and effectively than their rivals.

2.3 Market Sensing Practices and Firm Performance

According to research, an organization's power to obtain a competitive edge over its rivals is based not only on its strategic position, but also on its ability to consistently produce and nurture distinctive talents (Peteraf and Barney, 2003). In order to remain competitive and attain higher performance thresholds in a competitive marketing environment, organizations must build strong marketing skills in the area of market sensing (Harmsen and Jensen, 2004).

Market sensing focuses on information about customers, rivals, events, and changes in the business environment in order to obtain market intelligence and conduct strategic course of action via sense and sense-making (Rasmussen et al., 2011). Sensing capabilities in a firm's business ecosystem, according to Lin and Wang (2015), form the foundation for developing dynamic capabilities, such as sensing technological development, customer demand, and

market segmentation, all of which are critical ingredients for superior organizational performance and competitive advantages.

Enterprises that utilize market-sensing activities, according to Day (2002) acquire a competitive advantage and increase their company performance. As a consequence, the capacity of a firm to obtain information about its business environment and utilize that knowledge to impact its policies is the key to its success. Lindblom et al. (2008) found that an enterprise's market sensing capability correlates positively but weakly with its growth and has no statistically significant impact on profitability; as a result, they suggested that sensing capability has a moderating rather than a direct effect on enterprise performance.

According to Morgan et al. (2009), market sensing skills have no direct influence on corporate financial performance, but they have a synergistic effect on brand management capacity in impacting financial performance. Their results support up the idea that greater market knowledge, which may be the product of increased market sensing skills, contributes more value to assessing an enterprise's performance by impacting value selection, development, and delivery processes indirectly (Hult et al., 2005).

2.4 Empirical Review

In his study of how firms manage the market learning process, Day (2002) evaluated the strengths and weaknesses of the mental models used by organizations to filter, sort, and simplify market information into coherent patterns as well as ways to strengthen a market learning capability. He also looked at the primary mechanisms for acquiring market

information and transforming it into market knowledge. Companies that comprehend these two processes, according to Day (2002), get an edge by seeing market possibilities before their rivals do and accurately predicting how the market would respond to their activities.

To examine the effects of market sensing ability, product innovation success, speed to market, and entrepreneurial attitude on SME performance, Ardyan (2015) selected 168 SME owners or managers in Java, Indonesia. The results of the authors' Structural Equation Model test on the data showed that the success of product innovation and entrepreneurial orientation had a positive and substantial influence on SME performance. Speed to market and market sensing ability had little or no impact on each other, while market sensing ability significantly affected both speed to market and the success of a product's innovation. Entrepreneurial attitude had no discernible impact on product innovation. Market sensing cannot be relied upon to forecast firm success since it is employed as a mediating factor in this research.

Ahmed, Ibrahim, and Hasaballah (2017) investigated how market sensing, innovation capacity, and firm market performance interacted in Sudan. The aim of the research was to investigate how internal information flow affected the link between market sensing and market performance as well as how innovation affected that correlation. As a result of their research of the responses from 166 Sudanese businesses, the authors found that internal information sharing strengthens the positive relationship between market sensing and innovation. Additionally, it was shown that innovation somewhat mediates the link between market sensing and market performance. The research then examined the relationship

between market sensing and innovation and market performance and found that the two were related. Ahmed et al. (2017) assert that market sensing is a flexible tool that Sudanese companies must employ to innovate and operate well.

The link between market sensing skills, knowledge creation, a strategic entrepreneurial orientation, and innovation in small and medium-sized firms was examined by Alshanty and Emeagwali in 2019. (SME). The authors used covariance-based structural equation modeling to evaluate data from (n = 255) SMEs in Jordan (CB-SEM). The SEM's findings demonstrated the positive effects of market sensing competency on knowledge creation and corporate innovation. Company innovation benefited from knowledge production, and knowledge creation served as a mediator between market-sensing abilities and firm innovation. The association between knowledge creation and business innovation was controlled by strategic entrepreneurial-orientation, which made the positive relationship weaker when it was high. The research offers both theoretical and empirical management insights on market sensing (Alshanty and Emeagwali, 2019).

Ndambuki (2018) investigated the mediating role of market sensing on the link between important account management practices and the performance of commercial banks in Kenya using a cross-sectional research design and a data analysis approach that included both correlation and regression of data. According to the author, market sensing was shown to have a statistically significant mediating effect on the relationship between crucial account management procedures and company success. Marketing sense aspects in this research include learning orientation, organizational system, market information, and organizational

communication. It would be useful to understand more about market sensing's direct influence on company success, but it served as a mediator in this research.

2.5 Literature Review and Research Gap Summary

This chapter has reviewed the literature related to the study variables, and the review reveals that prior research used a variety of methodologies or points of view to define and categorize market sensing, which was primarily used to understand the firm's changing business environment and to identify opportunities and risks. The specialized resources, skills, and organizational procedures of a business, as per the literature. Organizations have the power to provide a business a competitive edge. According to Teece, Pisano, and Shuen (1997), from the standpoint of dynamic capability, resources are produced via specific routines that result in a variety of abilities. Deploying dynamic capability is the process of identifying and seizing market opportunities as well as changing the resource base. According to the literature review, market sensing has been employed as a moderating variable in the majority of research, particularly when combined with other key factors and with a focus on the banking industry. The Fintechs themselves, as opposed to their role as technology providers to the banking industry, have received very little attention in study to yet. To operationalize market sensing activities in terms of learning orientation, organizational system, market information, and organizational communication, this research focuses on market sensing practices.

CHAPTER THREE : RESEARCH METHODOLOGY

3.1 Introduction

Chapter three explains research design used in the study. The chapter details data collection, measurement, and analysis methods that were used, showing the study properly addressed the research objectives. The study's population is discussed, then data collection methods, reliability and validity, and data processing procedures are discussed.

3.2 Research design

A research design is a set of techniques and processes for gathering and analyzing data on the study's specified variables (McLaughlin, 2012). Cross-sectional surveying was utilized in this research. In order to make judgments about an interested population at a particular period, a cross-sectional survey collects data. Cross-sectional surveys are thought of being instantaneous depictions of the populations from whom data is gathered. Given the size of the population, a survey is seen to be a reasonable research design. Odhiambo (2014) used the cross sectional survey design in a similar investigation.

3.3 Population of the study

All individuals, a group of persons to which an investigator seeks to generalize the result is referred to as the target population (Bryman, 2012). The choice of a population determines the units to be studied and as such the researcher must ensure that this choice is capable of answering the research question. According to Central Bank of Kenya Data as at December 31st, 2021, there were 38 registered Fintech companies. The study focused on the 38

registered Fintech firms. Because the population was not large, the survey included all 38 Fintech firms.

3.4 Data Collection

Primary data was collected using a questionnaire. There were three (3) sections to the questionnaire: Section A was to collect data on demographic information, Section B was to gather data on the independent variable that is market sensing capabilities, Section C was to collect data on performance. The questionnaire was administered to senior managers such as the CEO, Business Development manager or the Finance manager whoever was easily available. These persons were best placed to provide relevant information. The questionnaires was administered through the drop-and-pick approach. This is because the respondents were not in a position to respond to the questionnaire immediately.

3.6 Data analysis

Exercises in data management included cleaning and validating completeness. Both descriptive and inferential statistics were employed to analyse the data. Calculated means and measures of dispersion were included in descriptive statistics. Regression analysis was utilized to undertake inferential analysis. The researcher was able to analyze the influence of the independent variable on the dependent variable by employing regression analysis. Here is the regression model:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$$

Where

Y is firm performance

X_1 is Learning Orientation

X_2 is Organizational System

X_3 is Market Information

X_4 is Organizational Communication

$\beta_1, \beta_2, \beta_3$ and β_4 are the coefficients of regression

α is the regression constant or intercept.

CHAPTER FOUR: DATA ANALYSIS PRESENTATION AND DISCUSSION

4.1 Introduction

This chapter presents the response rate, which is followed by the demographic data analysis that focuses on firms' number of years in operation, number of branches, and number of employees. This is followed by the analysis of the descriptive statistics in respect of organizational system, learning orientation, market information, organizational communication and firm performance. Subsequently, the regression analysis results are presented, and includes regression summary model, regression ANOVA and regression coefficients. The chapter ends with the discussion of findings.

4.2 Response Rate

This study was census based in which questionnaires were distributed to the entire population of 38 firms. The results of the returned data showed that 36 were successfully usable, which represented a response rate of 94.70%. According to Mugenda and Mugenda (2008), the response rate that was achieved was within the standard for carrying on with further analysis of the data.

4.3 Demographic Data Analysis

The demographic data that the study sought to analyse included the number of years that a firm had been in operation, the number of branches that a firm had, and the number of employees that a firm also had. The following are the findings of the demographic analysis that were done.

4.3.1 Number of Years in Operation

Table 4.1 shows the distribution of the number of years a firm had been in operation. This was measured on the basis of four categories (less than 5 years, 5-10 years, 10-15 years and above 15 years, the results are presented below.

Table 4.1: Number of Years in Operation

Category	Frequency	Percent (%)
Less than 5 years	3	8.3
5- 10 Years	8	22.2
10-15 Years	8	22.2
Above 15 Years	17	47.2
Total	36	100.0

Firms that had been in operation for Less than 5 years were 3 (8.3%), 5- 10 Years 8 (22.2%), 10-15 Years 8 (22.2%) Above 15 Years 17 (47.2%). This indicates that majority of the firm's 47% had been in operation for more than 15 years. Those that had been in operation for the least number of years were, that is less than 5 years were 8.3%. This suggests that most of the firms that participated in the study had been in operation long enough to understand market sensing experience in the sector.

4.3.2 Number of Branches

Table 4.1 shows the distribution of the number of branches a firm had at the time of interview of respondents. This was measured on the basis of four categories (less than 5 number of branches, 5-10 branches, 10-15 branches and above 15 branches, the results of the analysis are presented below.

Table: 4.2: Number of Branches

Category	Frequency	Percent (%)
less than 5	21	58.3
5-10	7	19.4
10-15	5	13.9
above 15	3	8.3
Total	36	100.0

Table 4.2 shows the distribution for the number of branches a firm had. less than 5 21 (58.3%), those that had 5-10 were 7 (19.4%), those that had 10-15 were 5 (13.9%), and those that had above 15 were 3 (8.3%). Majority of the firms, based on the findings, had less than 5 branches. This suggests that most of the firms had centralized operations, however, there were a sizable number that had expanded operations with branches spread out in different parts of the country therefore with a much more scope for market sensing capabilities.

4.3.3 Number of Employees

Table 4.1 shows the distribution of the number of employees that the firms had at the time of interview of respondents. This was measured on the basis of four categories (less than 10 number of employees, 10-20 number of employees, 20-30 number of employees and above 30 number of employees, the results of the analysis are presented below.

Table 4.3: Number of Employees

Category	Frequency	Percent (%)
less than 10	12	33.3
10-20	21	58.3
20-30	2	5.6
above 30	1	2.8
Total	36	100.0

Table 4.3 shows that firms that had less than 10 employees were 12 (33.3%), 10-20 were 21 (58.3%), 20-30 were 2 (5.6%), and above 30 1 (2.8%). This shows that majority of the firms had 10 to 20 employees, however, those with less than 10 constituted a sizable number suggesting that more than 90% of the firms were small in size with a maximum of 20 employees.

4.4 Descriptive Statistics

The descriptive statistics analysis focused on evaluating the mean and standard deviation of the key constructs in the study, which included learning orientation organizational system market information organizational communication and firm performance.

4.4.1 Learning Orientation

The following section presents statements on the dimension of learning orientation. Learning orientation had 10 statements of which the respondents were requested to state the extent of which they were in agreement or disagreement with the statements by ticking the relevant box on a likert scale. Where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree. The mean and standard deviation were tabulated as indicated in Table 4.4.

Table 4.4: Learning Orientation

Statements	Mean	Std. Deviation
Management basically agrees that the firm's ability to learn is key to its performance.	4.39	.599
Learning is viewed as key to improvement of the firm	4.11	1.116
Employee learning is viewed as an investment in the firm	4.19	.822
Learning is seen as being key to the firm's survival	3.86	1.125
There is commonality of purpose in the firm	4.44	.695
There is total agreement in the firm's vision across all levels and functions	4.17	1.056
Employees are committed to the goals of the firm	4.31	.920
In the firm we critically review our assumptions about our clients	3.75	1.461
In the firm we continually question our perception of the market place	4.17	1.108
In the firm we continually review our processes.	4.33	.828
Average Mean Scores	4.172	0.973

Table 4.4 shows evaluation of the means and standard deviations of learning orientation dimensions. The findings reveal that all the items measuring learning orientation have a mean averaging 4, which is an indication that there is agreement among the respondents that the firm's ability to learn is key to its performance, employee learning is considered as an investment in the business, learning is viewed as being crucial to the firm's existence, and there is a common purpose inside the companies, total agreement in the firm's vision across all levels and functions, and workers are also devoted to the firms' objectives. Also, the firms critically review assumptions about clients, and continually question perception of the market place while at the same time continually reviewing processes. The average standard

deviation (0.973) shows that majority of the respondents perception was not deviating much from the average opinion of the respondents.

4.4.2 Organizational System

Organizational system had 6 statements of which the respondents were requested to state the extent of which they were in agreement or disagreement with the statements. The mean and standard deviation were then tabulated as indicated in table 4.5.

Table 4.5: Organizational System

Statements	Mean	Std. Deviation
The firms market sensing systems are decentralized	4.17	1.159
There are formal rules and procedures for market sensing in the firm	4.25	.874
The firms reward systems is market based on defined outcomes	4.31	.822
The firms market sensing goals are clearly stated	4.47	.560
We encourage people on our project teams, including the client and his or her staff, to behave as though each of us is responsible for the final results of the total project, rather than just for the part we have been assigned.	4.36	.990
We keep our clients fully involved in the planning and execution of projects and stress the importance of their role in getting results.	4.28	.779
Average Mean Scores	4.307	0.864

Table 4.5 shows the results of the descriptive statistics of organizational system. The average mean score (4.307) suggests that there was agreement among the respondents that the firms market sensing systems were decentralized, and that there were formal rules and procedures for market sensing in the firms, and reward systems were market based on defined outcomes, firms market sensing goals were clearly stated, and people on project teams, including the

client and their clients were fully involved in the planning and execution of projects where the significance of each member's role in achieving results was stressed, and staff were encouraged to behave as though each one of them was responsible for the final results of the entire project rather than just for the part they had been assigned. The average standard deviation (0.864) indicates that there was minimal divergent opinion with regard to organizational system.

4.4.3 Market Information

Market information had 7 statements of which the respondents were requested to state the extent of which they were in agreement or disagreement with the statements. The mean and standard deviation were then tabulated as indicated in table 4.6.

Table 4.6: Market Information

Statement	Mean	Std. Deviation
The firm regularly collects information about its competitors.	3.81	1.142
The firm constantly collects market information about its customers.	4.39	.903
In the firm, we actively analyze information about customers	4.28	.914
Sensing changes in the market is relevant to the firm's business.	4.22	.929
The firm provides information to other members of the distribution chain	4.14	.961
The firm's information system allows efficient and effective exchange of information	4.28	1.003
All employees are aware what the goals of the firm are	4.28	.849
Average Mean Scores	4.20	0.957

Observation of table 4.6 shows that the average mean score of market information was 4.20, which suggests that the respondents were agreed that the firms regularly collected information about the competitors and customers, and actively analyzed information about customers, sensed changes in the market as to relevance to the firm’s business, and the firms provided information to other members of the distribution chain that allowed efficient and effective exchange of information, and that all employees were aware what the goals of the firms were. This perception was accentuated by the standard deviation (0.957), which suggested that there was minimal dispersion from the average mean perception about market information.

4.4.4 Organizational communication

Organizational Communication had 4 statements of which the respondents were requested to state the extent of which they were in agreement or disagreement with the statements. The mean and standard deviation were then tabulated as indicated in Table 4.7.

Table 4.7: Organizational Communication

Statements	Mean	Std. Deviation
We communicate expected outcomes from key account plans in the firm	4.00	1.219
In the firm we communicate our organizational values clearly	4.28	1.059
The firms key account decision making criteria is known to everybody	4.28	.741
The firms’ lines of communication in relation to key accounts are clearly laid out	3.89	1.190
Average Mean Scores	4.113	1.052

Table 4.7 shows the descriptive statistics of organizational communication dimensions. All the item measures average mean scores (4.113) indicate that the respondents were agreed that their respective organizations communicated expected outcomes from key account plans, and

the communicated organizational values were clear, key account decision making criteria was known to everybody, and the lines of communication in relation to key accounts were clearly laid out. The average score for standard deviation (1.052) suggests that there was minimal divergent perception on organizational communication among the respondents.

4.3.5 Firm Performance

Firm performance had 16 statements of which the respondents were requested to state the extent of which they were in agreement or disagreement with the statements. The mean and standard deviation were then tabulated as indicated in table 4.8.

Table 4.8: Firm Performance

Statements	Mean	Std. Deviation
During the last three years our company's sales revenue has continued to increase	4.25	.967
During the last three years our company has been able to reduce cost of operations	3.86	1.246
During the last three years the company's debt to equity ratio has been favorable	4.14	1.175
Over the past three years the number of products (in units) of our company has continued to increase	4.22	.929
Generally, employees are proud to work for this firm	4.28	1.031
Our firm consistently has more revenue than expenses	4.17	1.000
During the last three years the number of our customers has continued to increase	3.89	1.348
Our customers are happy with our offerings and charges	4.06	1.040
Employees of this firm make personal sacrifices if it were important for the firm's well being	4.25	.906
We have lower employee turnover than that of our competitors	4.14	1.099
There has been continuous re-engineering of internal processes to meet customer expectations.	4.39	.964
A system is in place to assess effectiveness of our firm	4.28	.815
Our products and services are highly rated	4.31	1.009
We often receive complimentary communication from our customers	4.22	1.017
The organization is able to retain its customers as compared to its peers in the industry	4.03	1.404
Our customers feel safe in their transactions when dealing with us	4.06	1.241
Average Mean Scores	4.159	1.074

Table 4.8 indicates the average mean and standard deviation scores for all the firm performance dimensions. The average mean score (4.159) shows that the respondents were in agreement that during the last three years, at the time of this study, sales revenue had continued to increase, and the firms had been able to reduce cost of operations, debt to equity ratio had been favorable, the number of products (in units) of our company had continued to increase, and generally, employees were proud to work for the firms. In addition, the firm had consistently had more revenue than expenses, since the number of customers continued to increase over the period, because the customers were happy with the offerings and charges of the firms.

The data also suggest that workers of the businesses made personal sacrifices if it were vital for the firms well being, resulting in lower employee turnover than that of the rivals. There was maximum sustained internal procedures to meet customer needs, with a system to assess effectiveness of the firms, Products and services were highly rated, due to the fact that the firms often received complimentary communication from customers, enabling the organizations to retain customers as compared to peers in the industry, and customers also felt safe in their transactions when dealing with the firms. The average standard deviation (1.074) suggests that majority of the respondents perception was in agreement with firm performance measures.

4.5 Regression Analysis

The study used simple regression to evaluate the relationship between the independent variables, Learning Orientation, Organizational System, Market Information and Organizational communication on one hand and the dependent variable firm performance on

the other hand. The results include analyses of the model summary, ANOVA and regression coefficients.

4.5.1 Regression Summary Model

Table 4.9 represents regression summary on the relationship between predictors and the dependent variables.

Table 4.9: Model Summary

Model	R	R Square	Adjusted R Square	SE of the Estimate	R Square Change	F Change	Sig. F Change
1	.787 ^a	.620	.571	.079	.620	12.628	.000

a. Predictors: (Constant), learning orientation, organizational system, market information, organizational communication.

b. Dependent Variable: Firm Performance

Table 4.9 shows the regression model summary results. The R value is 0.787 and the R-Square is 0.620. This suggests 62% of the variation in firm performance was attributed to learning orientation, organizational system, market information, and organizational communication.

4.5.2 Regression ANOVA

The regression analysis of variance (ANOVA) was performed and Table 4.10 shows the results.

Table 4.10: ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.316	4	.079	12.628	.000 ^b
	Residual	.194	31	.006		
	Total	.509	35			

A. Dependent Variable: Firm Performance

B. Predictors: (Constant), Organizational Communication, Organizational System, Market Information, Learning Orientation

The key assumption of ANOVA is that the variances are approximately equal, that is the homogeneity of variances assumption, the ANOVA table 4.10 shows that $F(4, 31) = 12.628$, $p < 0.001$) there is a significant difference among the means of the items. The ANOVA suggests that learning orientation, organizational system, market information and organizational communication are significant predictors of firm performance.

4.5.3 Regression Coefficients

The analysis of regression coefficients was done to determine the effect of the independent variables on the dependent variable. Table 4.11 represents the findings using 95% confidence interval

Table 4.11: Coefficients^a

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	2.895	.536		5.398	.000
	Learning Orientation	-.034	.149	-.036	-.231	.819
	Organizational System	-.035	.158	-.032	-.219	.828
	Market Information	.084	.147	.073	.571	.572
	Organizational Communication	.450	.070	.763	6.464	.000

a. Dependent Variable: Firm Performance

The regression coefficients are presented in table 4.11, which shows that the unstandardized regression coefficient (β) for predicting the effect of learning orientation, organizational system, market information, and organizational communication on firm performance. The results revealed that there is no significant learning orientation ($\beta = -0.036$, $t = -0.231$, $p = 0.819$) effect on firm performance, similarly with organizational system ($\beta = -0.032$, $t = -0.219$, $p = 0.828$) and market information ($\beta = 0.073$, $t = 0.571$, $p = 0.572$), organizational

communication ($\beta = 0.763$, $t = 6.464$, $p < 0.05$) has a significant effect on firm performance. However, the findings revealed that a unit increase in learning orientation and organizational system reduces firm performance by 0.036 and 0.032 respectively, while a unit increase in market information and organizational communication increases firm performance by 0.073 and 0.763 other factors being constant. The findings of the regression coefficients revealed the following structural equation:

$$\text{Firm performance} = 2.895 - 0.036X_1 - 0.032X_2 + 0.073X_3 + 0.763X_4$$

4.6 Discussion of Findings

The findings of this study are that 62% of the variation in firm performance among the Fintech companies in Kenya is explained by learning orientation, organizational system, market information and organizational communication, which is quite a significant outcome in spite of the observation that learning orientation and organizational system are inversely related to firm performance. However, it was found that the overall effect of market sensing capability on firm performance was positive and statistically significant. This means that Fintech companies in Kenya are likely to realize increased performance if they develop and apply market sensing capabilities as a market facing strategy, an approach that is consistent with the theoretical perspective of resource based view and dynamic capability

Market sensing capabilities can be linked to a firm's dynamic capabilities. The firm's dynamic capabilities is founded on the fundamental concept that the organization's ultimate objective is to develop a durable competitive advantage that allows it to collect economic returns. The presence of crucial resources that are non-substitutable, useful to customers, firm-specific, and difficult to mimic, and that lead to a lasting competitive advantage, is the

key to firm performance. This viewpoint emphasizes firm-specific competencies and assets, as the primary determinants of firm performance.

Studies on the relationship between market sensing capabilities and market performance provide proof that these talents have a favorable impact on market performance (Ardyan, 2016). Additionally, other research have not shown any strong links between company success and market sense (Morgan et al., 2009). According to Lindblom et al. (2008), there is some evidence that the capacity to sense the market and firm growth are positively correlated. According to Ardyan (2016), market sensing talents have a major impact on innovativeness and speed to market. According to Ahmed et al. (2017), market sensing skill strongly influences firm market performance and profitability. Therefore, the enhanced performance of SMEs that rely on learning-positioning requires market sensing skills. Effective market sensing skills help to create new information. Market sensing may not provide an extraordinary outcome, but would only lead to increased market performance when reinforced with additional resources.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the findings in the previous chapter as well as the conclusions that can be drawn from the findings, and includes recommendations in terms of implications to practice and policy for the fintech industry.

5.2 Summary

The objective of this study was to establish the relationship between market sensing practices and performance of fintech companies in Kenya. This study was census based in which questionnaires were distributed to the entire population of 38 firms. The results of the returned data showed that 36 were successfully usable, which represented a response rate of 94.70%. The response rate that was achieved was within the standard for carrying on with further analysis of the data. Most of the firms that participated in the study had been in operation long enough to understand market sensing experience in the sector, and had less than 5 branches. Most of the firms had centralized operations, however, there were a sizable number that had expanded operations with branches spread out in different parts of the country therefore with a much more scope for market sensing capabilities. Majority of the firms had 10 to 20 employees, however, more than 90% of the firms were small in size with a maximum of 20 employees. The descriptive statistics analysis focused on evaluating the mean and standard deviation of the key constructs in the study, which included learning orientation organizational system market information organizational communication and firm performance. The study found that learning orientation, organizational system, market

information and organizational communication means and standard deviations were agreeable concepts in the firms similar to firm performance, and therefore constituted critical operational activities. Further analysis involved evaluation of the relationship between market sensing and firm performance. The study found that 62% of the variation in firm performance was attributed to learning orientation, organizational system, market information, and organizational communication. The ANOVA analysis showed that there was significant difference in the item means suggesting that learning orientation, organizational system, market information and organizational communication were significant predictors of firm performance. In addition, the study found that a unit increase in learning orientation and organizational system reduces firm performance by 0.231 and 0.035 respectively, while a unit increase in market information and organizational communication increases firm performance by 0.572 and 0.450 other factors being constant. Only organizational communication had a significant influence on firm performance, however, the combined overall effects of learning orientation, organizational system, market information and organizational communication on firm performance was significant.

5.3 Conclusion

The study concludes that the independent variables, which included learning orientation, organizational system, market information and organizational communication were operational activities within the firms and that they significantly explained the variation in firm performance and more importantly their combined overall effects on firm performance was significant. This therefore leads to the conclusion that market sensing influences firm

performance in the fintech industry. As such, firms that have robust market sensing practices are likely to register better firm performance.

5.4 Recommendations

5.4.1 Practical Implications

The research provided data to support the claim that market sensing skills are crucial in explaining business success. A company is more likely to be able to successfully react to consumer wants and the needs of the business environment overall as a consequence of the findings gained from testing the conceptual framework of this research from a managerial point of view. The researcher believed that the market sensing capabilities, which includes Learning Orientation, Organizational System, Market Information and Organizational Communication should be mainstreamed in the overall business operations of the fintech firms.

5.4.2 Policy Recommendations

The fintech industry is critical to the realization of the vision 2030, because Fintech firms employ technology to supply financial services more efficiently. Peer-to-peer lending, peer-to-peer payment technology, digital wallets, Block chain, and mobile banking, which are intended to provide advantages and increase the efficiency of financial transactions, and also aid in the reduction of client expenses. Thus, it is important for the business environment in which these fintechs are operating under is governed by policies that are conducive to faire competition and support business growth locally and international.

5.5 Suggestions for Further Research

The purpose of this study was to establish the relationship between market sensing capabilities and firm performance in the Fintech industry. There were certain challenges, which required that further research be undertaken. These includes the following: consideration of qualitative research design since the current study was quantitative in nature. A longitudinal approach may also yield different results that may improve the underpinning theories and practice as well. Other researchers could also refine market sensing capabilities dimensions as well

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APPENDICES

APPENDIX I: QUESTIONNAIRE

This study aims to investigate the relationship between market sensing practices and the performance of Fintech companies in Kenya. Kindly answer the questions below as honestly as you possibly know. All the information shall be anonymous and confidential. Tick the spaces provided to indicate your choice.

SECTION A: GENERAL INFORMATION

1. Name of Company (Optional).....

2. Number of Years in Operation

Less than 5 years

5- 10 Years

10-15 Years

Above 15 Years

3. Number of Branches

Less than 5

5-10

10-15

Above 15

4. Number of Employees

Less than 10

10- 20 Employees

20-30 Employees

Above 30 Employees

SECTION B: MARKET SENSING PRACTICES

The following section presents statements on the dimension of market sensing practices. Please indicate the extent of your agreement or disagreement by ticking the relevant box on the table below. Where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

1B. Learning Orientation

Learning Orientation Dimensions	1	2	3	4	5
Management basically agree that the firms ability to learn is key to its performance. Learning is viewed as key to improvement of the firm					
Employee learning is viewed as an investment in the firm					
Learning is seen as being key to the firms survival					
There is commonality of purpose in the firm					
There is total agreement in the firms vision across all levels and functions					
Employees are committed to the goals of the firm In the firm we critically review our assumptions about our clients					
In the firm we continually question our perception of the market place					
In the firm we continually review our processes.					

2B Organizational Systems

Organizational Systems Dimensions	1	2	3	4	5
The firms market sensing systems are decentralized					
There are formal rules and procedures for market sensing in the firm					
The firms reward systems is market based on defined outcomes					
The firms market sensing goals are clearly stated					

3B. Market Information

Market Information Dimensions	1	2	3	4	5
The firm regularly collects information about its competitors.					
The firm constantly collects market information about its customers.					
In the firm, we actively analyze information about customers					
Sensing changes in the market is relevant to the firms business.					
The firm provides information to other members of the distribution chain					
The firms information system allows efficient and effective exchange of information					
All employees are aware what the goals of the firm are					

4B. Organizational Communication

Organizational Communication Dimensions	1	2	3	4	5
We communicate expected outcomes from key account plans in the firm					
In the firm we communicate our organizational values clearly					
The firms key account decision making criteria is known to everybody					
The firms lines of communication in relation to key accounts are clearly laid out					

SECTION C: FIRM PERFORMANCE

The following section presents statements on the dimension of firm performance. Please indicate the extent of your agreement or disagreement by ticking the relevant box on the table below. Where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

1C. Firm Performance

Statements on Performance	1	2	3	4	5
During the last three years our company's sales revenue has continued to increase					
During the last three years our company has been able to reduce cost of operations					
During the last three years the company's debt to equity ratio has been favorable					
Over the past three years the number of products (in units) of our company has continued to increase					
Generally, employees are proud to work for this firm					
Our firm consistently has more revenue than expenses					
During the last three years the number of our customers has continued to increase					
Our customers are happy with our offerings and charges					
Employees of this firm make personal sacrifices if it were important for the firms well being					
We have lower employee turnover than that of our competitors					
There has been continuous re-engineering of internal processes to meet customer expectations.					
A system is in place to assess effectiveness of our firm					
Our products and services are highly rated					
We often receive complimentary communication from our customers					
The organization is able to retain its customers as compared to its peers in the industry					
Our customers feel safe in their transactions when dealing with us					

APPENDIX II : LIST OF FINTECH IN KENYA

1. 3G Direct Pay Group
2. Abacus
3. Alternative Circle
4. Bamba Pos
5. BitPesa
6. Bitsoko
7. Branch
8. CA Payments
9. Caytree Partners
10. Cellulant
11. Chura Limited
12. Circle Group Savings and Investment
13. Direct Pay Online
14. Eastpesa
15. Eclectics International Limited
16. ESacco
17. FarmDrive.
18. Funtrench Limited
19. Impala Pay
20. iNuka Pap
21. inVenture
22. Kenya Commercial Bank Group
23. Kocela
24. Kopo Kopo
25. Kwanji
26. Lelapa Fund