

**INFORMATION TECHNOLOGY-BUSINESS STRATEGY ALIGNMENT
AND ORGANIZATIONAL PERFORMANCE AMONG FINTECH FIRMS
IN NAIROBI COUNTY, KENYA**

OMAR ASHA MOHAMED

D61/33837/2019

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS
ADMINISTRATION, FACULTY OF BUSINESS AND MANAGEMENT SCIENCES,
UNIVERSITY OF NAIROBI**

NOVEMBER, 2022

DECLARATION

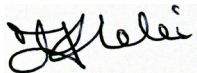
This research project is my original work and has not been presented for any award in any other university.

Signed:  _____ Date. 29/10/2022

Omar Asha Mohamed

D61/33837/2019

This research project has been presented for examination with my approval as the University Supervisor

Sign:  _____ Date 11/12/2022

Mr. Joel Kiplangat Lelei

Lecturer

Department of Management Science and Project Planning

Faculty of Business and Management Sciences

DEDICATION

I dedicate this research project to my father **Mohamed Omar Hassan**, my sister, and my brothers for their encouragement, support and love during this research project. Thanks a lot for your support and encouragement during my educational struggle.

ACKNOWLEDGEMENT

First, I express thanks to almighty Allah, the lord of the world, for enabling me to complete this study.

Secondly, I also would like to thank my supervisor, Mr. Joel Kiplangat Lelei for his valuable and professional guidance, support, encouragement, patience, caring and providing a good study environment during my project.

Thirdly, I wish to thank my beloved family particularly my Dad who have sacrificed through prayers and ensuring that my fees are paid on time and My sister who continually encouraged me throughout the process of my study.

Finally, my sincere thanks go to my class-mates, friends and colleagues who gave me endless contribution and also for their enlightening me the first glance of research.

TABLE OF CONTENTS

DECLARATION.....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
LIST OF TABLES.....	vii
LIST OF FIGURES.....	vii
ABBREVIATIONS AND ACRONYMS.....	ix
ABSTRACT.....	x
CHAPTER ONE: INTRODUCTION.....	1
1.1 Background to the Study.....	1
1.1.1 Information Technology-Business Strategy Alignment.....	2
1.1.2 Organizational Performance.....	5
1.1.3 Fintech Firms in Nairobi County, Kenya.....	5
1.2 Research Problem.....	6
1.3 Research Objectives.....	8
1.4 Value of the Study.....	9
CHAPTER TWO: LITERATURE REVIEW.....	10
2.1 Introduction.....	10
2.2 Theoretical Literature Review.....	10
2.2.1 Strategic Alignment Model.....	10
2.2.2 The Technology Acceptance Model.....	11
2.3 The Extent of Information Technology Business Strategies Alignment.....	12
2.4 The Drivers of Information Technology Business Strategies Alignment.....	14
2.5 Challenges Faced In Information Technology and Business Strategy Alignment.....	16
2.6 Organizational Performance.....	17
2.7 Information Technology Business Strategies Alignment and Organizational Performance	18

2.8 Summary of Literature and Knowledge Gap.....	20
2.9 Conceptual Framework.....	22
CHAPTER THREE: RESEARCH METHODS.....	23
3.1 Introduction.....	23
3.2 Research Design.....	23
3.3 Population of the Study.....	23
3.5 Data Collection.....	23
3.6 Data Analysis.....	24
CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION.....	26
4.1 Introduction.....	26
4.2 Response Rate.....	26
4.3 Reliability Result.....	26
4.4 General Information.....	27
4.5 Extent of IT-business strategies alignment among fintech firms.....	29
4.5.1 Functional IT-Business Strategies Alignment.....	29
4.5.2 Structural IT-Business Strategies Alignment.....	30
4.5.3 Dynamic IT-Business Strategies Alignment.....	31
4.6 Drivers of IT-business strategies alignment among fintech firms.....	32
4.7 Challenges faced in information technology and business strategy alignment.....	33
4.8 Relationship between IT-business strategies alignment and Organizational Performance.....	34
4.9 Discussion.....	36
CHAPTER FIVE: SUMMARY, CONCLUSION, AND RECOMMENDATIONS.....	40
5.1 Introduction.....	40
5.2 Summary of the Study.....	40
5.3 Conclusion.....	41
5.4 Recommendations of the Study.....	42
5.5 Limitations of the Study.....	42
5.6 Suggestions for Further Research.....	42
REFERENCES.....	43
APPENDIX 1: QUESTIONNAIRE.....	i

LIST OF TABLES

Table 2.1: Summary of Literature and Knowledge Gap.....	20
Table 4.1: Response Rate.....	26
Table 4.2: Reliability Results.....	26
Table 4.3: General Information.....	27
Table 4.4: Functional IT-Business Strategies Alignment.....	30
Table 4.5: Structural IT-Business Strategies Alignment.....	31
Table 4.6: Dynamic IT-Business Strategies Alignment.....	32
Table 4.7: Drivers of IT-business strategies alignment among fintech firms.....	32
Table 4.8: Challenges faced in information technology and business strategy alignment among fintech firms.....	33
Table 4.9: Model Summary.....	34
Table 4.10: ANOVA Findings.....	35
Table 4.11: Coefficients and Significance.....	35

LIST OF FIGURES

Figure 2.1: Strategic Alignment Model.....	11
Figure 2.2: Technology Acceptance Model.....	12
Figure 2.3: Drivers of Information Technology Business Strategies Alignment.....	15
Figure 2.4: Conceptual Framework.....	22

ABBREVIATIONS AND ACRONYMS

IT	Information Technology
SACCOs	Savings and Credit Cooperatives
SAM	Strategic Alignment Model
TAM	Technology Acceptance Model

ABSTRACT

The study's general objective was to examine the relationship between alignment of IT-business strategies and the performance of fintech firms in Nairobi. The specific objectives were to; establish the extent of IT-business strategies alignment among fintech firms in Nairobi, establish the drivers of IT-business strategies alignment among fintech firms in Nairobi, establish the challenges faced in the alignment of business and IT strategies among fintech firms in Nairobi and to determine the relationship between IT-business strategies alignment and organizational Performance among fintech firms in Nairobi. Literature was reviewed to cover theories and empirical studies to guide conceptual framework development. The study used cross-sectional and descriptive designs targeting 56 fintech, and a census was used. Information was obtained in its primary form using questionnaires. Means, standard deviations, and regression analysis guided the data processing, and the tables informed the presentation. It was shown that some of the aspects of business and IT strategies alignment that had been embraced include functional IT-Business strategies alignment, structural IT-Business strategies alignment, and dynamic IT-business strategies alignment. Shared domain knowledge, conducive working relationships among staff, and staff competency were the identified drivers of IT-business strategies alignment. Limited financial resources, a low level of understanding of IT among staff, and the existing unstable software were the challenges faced during IT-business strategies alignment. Furthermore, 65.5% change in the organizational performance of fintechs is explained by IT-business strategies alignment. The study recommends that the top leadership and management team working in fintech in Nairobi should cultivate good working relationships with other staff as this drives between IT-business strategies alignment in an organization. The human resource managers working among fintechs in Nairobi should enhance employee competency through training to drive IT-business strategies alignment.

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Aligning the information technology (IT) and business strategies has long been recognized as a driver of firm performance (Gartlan & Shanks, 2007). Presently, IT has turned out an instrumental platform that organizations need in order to survive in the increasingly turbulent environment (Elmorshidy, 2013). There has been a paradigm shift in firms presently especially with the movement of IT from an operational level to being a strategic and critical component and resources that firms should leverage to achieve their needs (Chege, Nyamboga & Wanyembi, 2018). This has necessitated firms to put in place measures of aligning the IT and overall business strategies so as to improve on their performance (Chebrolu & Ness, 2013). According to Njanka, Sandula and Colomo-Palacios (2021), effectively using IT strategies in line with the strategies of the business can create several benefits to the firm including enhancement of performance and competitive position as well as higher returns on investment.

The study was informed by the Strategic Alignment Model (SAM) as well as the technology acceptance model developed by Henderson and Venkatraman (1989). These two theories depict how different systems and technologies can be used to promote long term success in firms. This is done through integration of activities and plans to achieve the overall goal. In the SAM model, the business domain (the process and strategy) as well as technology domain (IT strategy and IT processes) are clearly distinguished at the top level of management and this drive the firm success. This study seeks to leverage this SAM to predict with certainty the implication of alignment of business and IT strategies on the performance of organizations. Developed by Davis (1986), TAM theory

provides that the decision and align IT strategy with strategic business goals depend on the usability and reliability of the systems in place. When employees in an organization hold opinion that the adoption of a given IT systems are ease to use and useful, an organization would achieve better business and IT strategy alignment and thus potential to contribute towards superior performance.

In Kenya, fintech firms are known for leveraging technology top drive disruption in offering of financial services in the entire industry (KPMG, 2017). Some of the financial services offered by these firms through technology include small loans, allowing customers to pay for their bills and as well as encouraging saving culture among the customers. Therefore, fintech firms greatly contribute towards financial inclusion allowing the marginalized and financially excluded people to access financial services. These fintech firms are faced with numerous challenges covering high level of competition from other industry players like commercial banks. However, given that technology drives significant level of operations of these firms, aligning the same with the strategic goals is critical in allow these firms to achieve superior performance. The constantly changing business and regulatory environment has necessitated these fintech firms to change their business strategies (Kiilu, 2018). Thus, motivation of the present inquiry is to determine and promote use of IT systems and policies in firm success, especially among technology based firms in Kenya.

1.1.1 Information Technology-Business Strategy Alignment

The concept of aligning business and IT strategies relate to the development of plans set to promote automation and digital management. Another definition of IT-business strategy alignment by Alfadhel, Liu and Oderanti (2019) is that it is a fit between

infrastructures and strategy of the business with IT infrastructures and strategy in a firm. IT-business strategy alignment allows firms to leveraging on technological infrastructures in supporting their business strategies and infrastructures so as to exploit the resultant impact from investment in IT (Slim, Sarah, Kadhim, Ali, Hammood & Othman, 2021). There are several benefits that accrue to a firm that embraces IT-business strategy alignment, as it contribute towards enhancement of the operational efficiency and innovativeness that contributed to overall performance of the firm (Waweru & Wausi, 2017). Firms that have successfully aligned their business and IT strategies have created significant returns while creating significant improvement in quality.

Literature points out different measures of IT and business strategy alignment including functional, structural as well as dynamic alignment. Gerow, Thatcher and Grover (2015) shared that alignment of business and IT strategy is also referred to intellectual alignment. Gutierrez, Mylonadis, Corozco and Serrano (2008) said that IT-business strategy alignment can take place at strategic, tactical as well as operational levels of the firm. Jonathan, Rusu and Van-Grembergen (2021) pointed out the key drivers that are pertinent when it comes to achievement of IT-business strategy alignment which include the existing structure and culture of the organization and the leadership in an organization (Jonathan, Rusu & Van-Grembergen, 2021). This study measured IT-business strategy alignment through the functional, structural as well as dynamic alignment.

Literature points out an array of drivers of business and IT strategies alignment. Seman and Salim (2013) identified these drivers to include strong support by those in management, sound working relationship; supportive leadership, proper communication and trust are drivers of success in management framework. Analysis also notes that

communication and effective governance can help achieve firm success in the long term. Khan (2017) provided the drivers of IT-business strategies alignment to include identified structure, planning, resources, technology, and communication and change management as instrumental drivers of business and IT strategy alignment. Yayla and Hu (2009) established relationship management, success in IT history, shared knowledge domain, formalization and centralization are key drivers of alignment between business and IT. In the present study, the drivers of IT-business strategies alignment was included various factors that support business domain and general planning.

Firms encounter several challenges when it comes to information technology and business strategy alignment. Wang and Rusu (2018) identified poor communication and information flow between IT and business functions, unstable software and network challenge and low understanding of IT among staff as some of these challenges. Wachinga (2010) identified risk and security related challenges towards alignment of business and IT strategies.

Bishop (2016) noted these challenges to include inadequate knowledge, lack of customized IT departments, limited financial resources, time constraints and competitor pressure. Alaceva and Rusu (2015) noted that poor communication, non-clear specifications, low level of cooperation, unlimited mutual support and commitment as an example of the challenges. The present study measured the challenges in to information technology and business strategy alignment to include poor communication, low understanding of IT among staff, unstable software and network, lack of customized IT departments, unlimited mutual support, limited financial resources as well as time constraint.

1.1.2 Organizational Performance

Organizational performance covers inputs that help to meet and achieve set values. This includes improving the quality of products and generation of more profits. It is the ability of the firm to meet both financial and non-financial established indicators (Chebrolu & Ness, 2013). Firms leverage resources to transform inputs into outputs resulting into significant value creation.

Thus, organization performance is broader and it covers both qualitative as well as quantitative indicators. Highly performing firms in an industry result into significant benefits in terms of increased market share and growth in revenues (Anuar & Md-Kamruzzaman, 2017). In order to determine the level of organization performance, efforts should be made to predict the core capabilities together with those of rival firms. Organizational performance can be determined based on the quality of products, growth in sales and an increased level of profit. The various indicators of organizational performance include quality, market share and efficiency as well as effectiveness. This study measured organizational performance using quality, effectiveness, efficiency, customer satisfaction, employee productivity, profit margin and cost minimization.

1.1.3 Fintech Firms in Nairobi County, Kenya

Fintech firms are financial institutions that heavily leverage technology to provide financial services like provision of loans and facilitating payment of utility bills and savings among customers. Technology is a key attribute of these firms as they seek to compete and remain relevant in the industry they serve (KPMG, 2017).

Fintech firms have a database for their customers that aid them in giving loans and other services like paying in utility bill, they also have functional departments like HR, operations and finance that strategically improves the performance of fintech firms. The key customers of the fintech include individuals as well as small businesses that access funds for running the operations. Some of these fintech firms provide peer to peer lending to customers like PesaZetu (Vives, 2017). In total, there are 56 fintech firms operating in Nairobi Kenya and they regulated by different players including the Communication Authority (CA) as well as other firms like the CBK. The sources of funds for the fintechs include angel investors, venture capital, crowd funding, bank loan, personal investment and business incubators among others. There a number of challenges that the fintech firms do encounter as they seek to operate and penetrate in the market. The level of competition that these firms are exposed to is alarming, due to other financial firms like commercial banks and microfinance as well as the savings and credit cooperatives (SACCOs) (Kiilu, 2018). This level of competition has necessitated and created pressure among these firms to embrace technology in their operations aimed at enhancing efficiency. However, in order for the full benefits and potential of the adopted technologies to be realized by these firms, efforts should be made to line up the IT strategy with the overall business strategies of these firms (Financial Stability Board, 2017) and hence the motivation of the proposed study.

1.2 Research Problem

IT-business strategy alignment is effective towards achievement of goals and performance issues in firms (Buchalcevova & Pour, 2018). Literature indicates that firms that have aligned the IT strategies with the overall strategies of the business achieve

superior performance (Chege, Nyamboga & Wanyembi, 2018). From the theoretical point of view, a positive nexus is predicted linking firm strategy and plan as well as the productivity levels. IT-plans allows the firm to embrace technology in realization of the strategic goals which influence the overall performance of the firm (Dairo, Adekola, Apostolopoulos & Tsaramirsis, 2021).

In Kenya, fintechs heavily rely on technology to deliver financial services to wide range of clients. However, the increased forces of complexity and globalization as well as economic uncertainty have heightened the level of competition among fintech firms in Kenya. Through these forces, the fintech firms have been compelled to rethink other means of generating superior performance in order to remain viable (Vives, 2017). This has led to a policy debate on adoption of IT- business strategy and plan helping to promote success in the firm. The significant role that fintech firms play in driving financial inclusion to the marginalized population need to be appreciated and efforts put in place to achieve superior performance of these firms so that they further this critical national building goal (Kiilu, 2018).

The studies include Alzayed and Alraggas (2014) who did a study in Kuwait focusing on alignment of IT and business strategy. It emerged that only 28% of the surveyed firms had aligned their IT goals with their overall strategy. The study conducted among firms in the United Kingdom by King, Cragg and Hussin (2000) placed focus on alignment of IT and performance. It emerged that firms having high level of planning and production the long run. Locally, Waweru and Wausi (2017) studied how aligning business and technology strategy impact on performance with a focus on public universities in Kenya. It emerged from the results that when aligning IT strategy with the business one

contributed towards an improvement in performance. Koskei (2016) focused on strategic alignment and IT as far as their implication on success of firms in the region. The study observed that aligning the external and internal strategies of the business with IT platform allow the firm to compete effectively. Therefore, empirical evidence provides inconclusive and mixed results and some like Njanka, Sandula and Colomo-Palacios (2021) and Chebrolu and Ness (2013) were done through systematic review of literature. Other studies like Alzayed and Alraggas (2014) were done in other countries like Kuwait away from Kenya hence creating gaps. Other studies like Koskei (2016) adopted case study approaches that are more qualitative unlike the proposed study that will use quantitative methods. In order to fill these gaps, the inquiry will answer the question: what is the link between information technology-business strategy alignment and firm performance, especially among fin-tech firms in Nairobi City in Kenya?

1.3 Research Objectives

1.3.1 General objective

The general objective of the study will examine the relationship between IT-business strategies alignment and firm productivity among fintech firms in Nairobi.

1.3.2 Specific objectives

- i. To determine the extent of IT-business strategies alignment among fintech firms in Nairobi.
- ii. To establish the drivers of IT-business strategies alignment among fintech firms in Nairobi.

- iii. To establish the challenges faced in aligning information technology and business strategies among fintech firms in Nairobi.
- iv. To determine the relationship between IT-business strategies alignment and firm productivity among fintech firms in Nairobi.

1.4 Value of the Study

The management of the respective fintech firms would gain an understanding on the need to leverage the existing technology strategies and align the same with strategies at business level for gaining of superior performance. The ICT managers of the fintech firms would be able to work and enhance the functionalities of the existing technological infrastructures and reconfigure the same with the established strategies. This would contribute towards overall performances of the fintech firms.

The policy makers in regulatory bodies that regulate specific fintech firms in Kenya would be able to advance relevant policies that will promote the overall resilience of the firms. The policy makers working in the fintech firms would be in position to review and modify the existing business and IT strategies and guide the alignment of these two concepts. This would in turn impact on performance of these fintech firms.

The study would contribute to the theories on IT-business strategy alignment in the firm and its implication on firm performance. The study would enhance the existing literature on these two concepts. Through this, future scholars would adopt the models related to the study topic.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section is set out to review literature guided by the theories and the research objectives. Literature is reviewed on IT-business strategies alignment, the drivers and the associated challenges, organizational performance and how it is linked with alignment. It also provides analysis of past studies and conceptual framework.

2.2 Theoretical Literature Review

The SAM and TAM will provide theoretical underpinning to the study.

2.2.1 Strategic Alignment Model

This model was proposed by Venkatraman, Henderson and Oldach (1993) and it provides the link related to strategy and firm success. The strategic fit provides distinction between external focus associated with business environment as well as internal focus linked to administrative structures of the firm. Business and IT are separated by functional integration. IT-business strategies alignment can only take place when out of the four domains; three of them are in the alignment (Venkatraman et al. 1993). This information is presented in Figure 2.1.

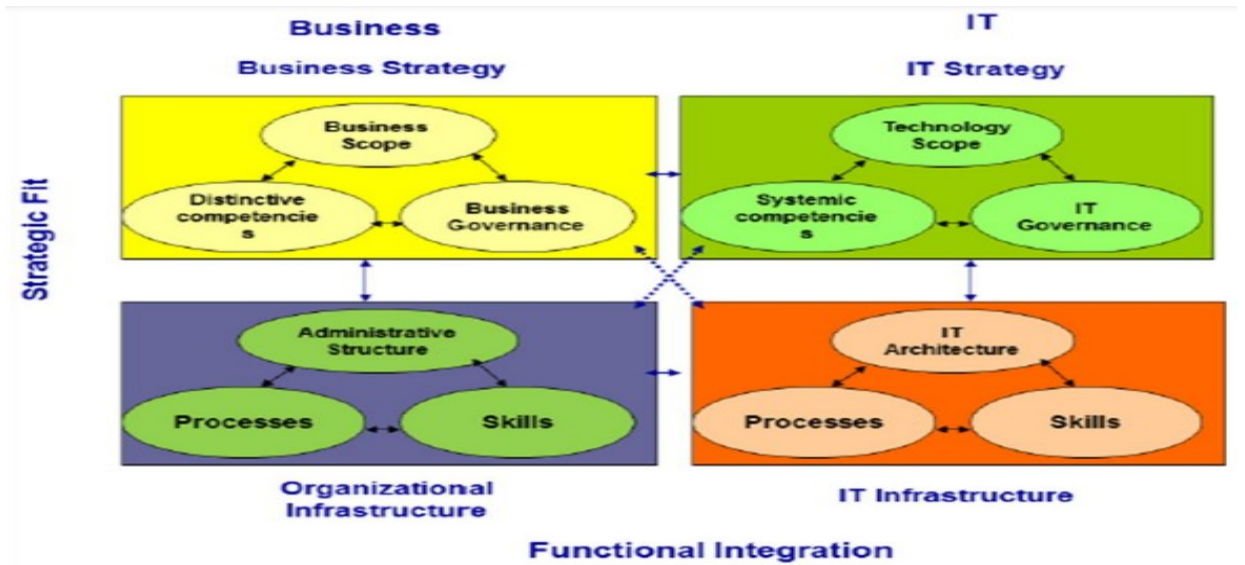


Figure 2.1: Strategic Alignment Model

Source: (Venkatraman, Henderson, & Oldach, 1993)

From Figure 2.1, functional integration is combined with strategic fit in the SAM. This model will be relevant in anchoring the main independent variable IT and business strategies alignment. The theory also would be used to guide the identification of the drivers of IT-business strategies alignment by leveraging its constructs and sub-constructs.

2.2.2 The Technology Acceptance Model

The proponent of the Technology Acceptance Model (TAM) is Davis (1989) and it enlists some of the issues that inform people to accept technologies in a social setting. The main proposition of TAM is that perceived ease of use (PEU) and perceived usefulness (PU) shape and provide the basis of one's intention to utilize a given technological system. Furthermore, PU is positively affected by PEU. Thus, PEU, PU and intention to use are key constructs that drive the adoption of IT in an organization. The definition is PU is the extent that an individual has assurance that the use of a given

technology would lead to an enhancement in productivity at personal level. On the other hand, PEU is degree which an individual is convinced that would be free of effort. Figure 2.2 is a summary of the TAM.

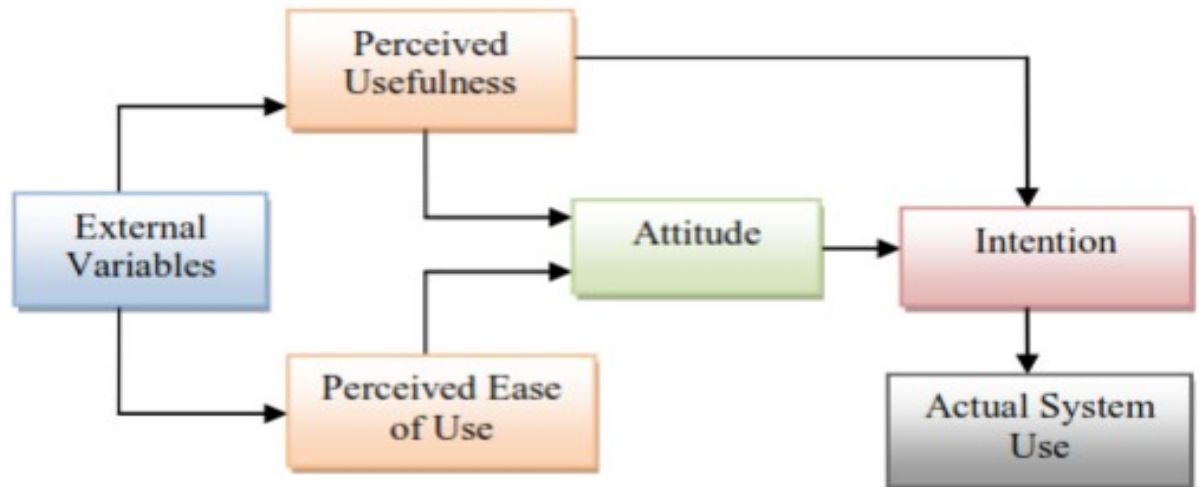


Figure 2.2: Technology Acceptance Model

Source: Davis (1989)

The implication of the TAM theoretical perspective is the greater staff has recognition that certain systems would ease the ability of performing tasks; the greater is the probability that the IT system would be used in the day to day activities because it would be regarded as useful.

A number of criticisms have been leveled against this TAM theory including its inability to consider education and age as external forces influencing the adoption of IT. This theory will be used to link and expound on the drivers of IT-business strategies alignment in an organization.

2.3 The Extent of Information Technology Business Strategies Alignment

Functional information technology business strategies alignment takes place at the departmental level for instance production, finance, human resource as well as marketing and information technology. Most of the decisions made at this level are operational in nature. During functional IT-business strategies alignment, strong emphasis is placed on practicality, metrics and detail (Anuar & MKamruzzaman, 2017). At this point of alignment, a high level of communication and feedback is required. Communication in this context can take place either horizontally or vertically. In this kind of alignment, IT is used to support integration of all the departments to facilitate seamless and real transaction including sharing of information within the departments of the firm. It means that no department works in isolation such that an IT department cooperates and works together with other functions in the firm (Wasiuk & Lim, 2021).

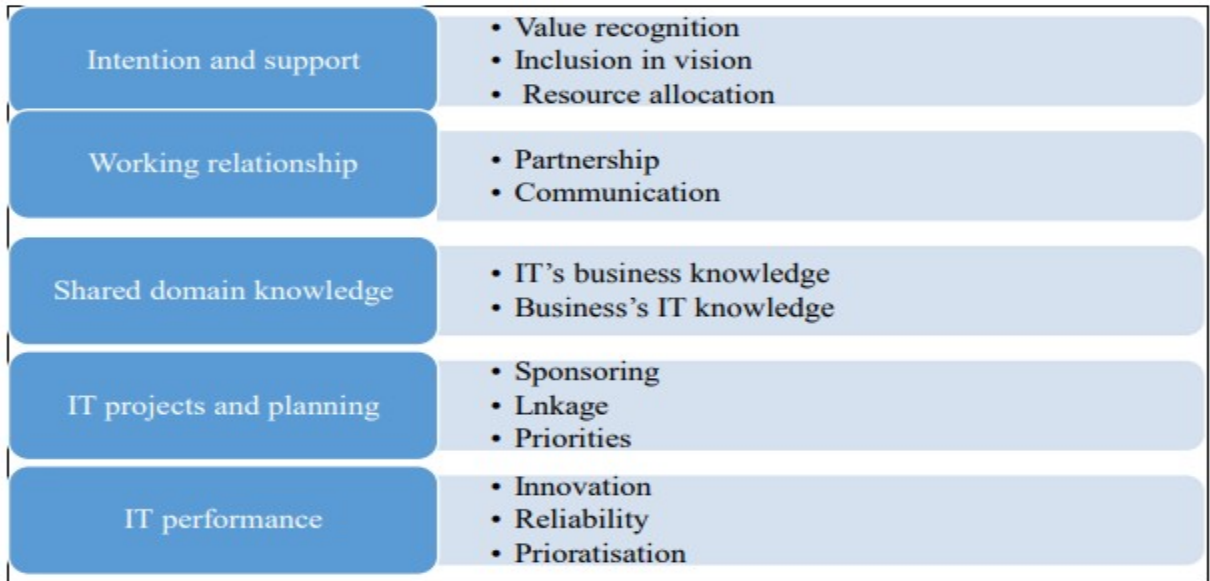
Structural information technology business strategies alignment involves design of the systems and processes in the firm to permit coordination of activities guided by open flow of information (Ogbo, Chibueze, Christopher & Anthony, 2015). This is an alignment where IT is integrated with the existing organizational structures in the firm. A study was conducted by Ogaga and Awino (2019) whose focus was on firm structural alignment and the implication on performance. It emerged that structural alignment is a critical driver of performance of the firm. Malik (2014) shared that hierarchical layers and formalization of structures are some of the activities done during structural IT-business strategies alignment. Muriu (2019) observed that having an open organizational structure permit the easy of coordination of activities and allow the firm to deploy IT in operations. Dynamic alignment information technology business strategies alignment is

about determination of the changes in market conditions and formulating appropriate strategies with the adoption of relevant IT systems as response measures.

In a highly dynamic business surrounding, firms should constantly design and maintain relevant technologies and reshape their strategies in order to exist (Pashutan, Abdolvand & Harandi, 2022). More focus at this point should on maximization of the returns arising from investing in IT to carry out operations. Handling the turbulences in the environment require firms to adopt relevant response strategies and deploy suitable technologies. As the environment keeps on changing, so does the existing IT systems in an organization. Besides, firms under uncertain environment have no alternative but to prioritize investment in IT and create strategies that are based on the same. Complying with this can allow the firm to maximize the returns generated from investment in IT (Pierce, 2002).

2.4 The Drivers of Information Technology Business Strategies Alignment

The key drivers of IT and business strategies alignment have been widely reviewed and documented in literature (Elmorshidy, 2013). Padayachee and Shano (2019) used the context of Lesotho arguing that process change management is an instrumental driver of alignment between business and IT strategies. Seman and Salim (2013) shared that strong support by those in management, sound working relationship, supportive leadership, proper communication and trust are drivers of firms success. This is well outlined in the figure below.



Source: van Hout (2012)

Figure 2.3: Drivers of Information Technology and Business Strategies Alignment

Intention and support is demonstrated by the commitment and willingness by those in management to leverage technology in carrying out strategic activities in the firm. Working relationship driver places emphasis on the interaction between the business and the IT including how they have partnered with each other. During strategy formulation, a high level of cooperation is desired between IT and the business. Shared domain knowledge driver is about an acknowledgement of how well IT is known in the business and how well IT has familiarity with the business. When both IT and the business have clear knowledge about each other, positive effects would accrue to the firm from their objectivity. IT projects and planning is how it is linked with the strategies and plans at business level. During project prioritization, efforts should be made to integrate IT. On the other hand, IT performance solely places focus on IT by considering the performance of IT function. This means that staff working in IT function needs to be familiarized with latest trends in IT and remain innovative to exploit the emerging opportunities.

The SAM models provide key constructs that have been widely documented in literature as drivers of IT-business strategies alignment (Wasiuk & Lim, 2021). These include adoption of effective communication, ensuring high level of governance as well as considering different skills and scope of the work. Tripathi (2022) observed that all these constructs of SAM except skill maturity and partnering are key enablers of business IT strategies alignment. Khan (2017) identified structure, planning, resources, technology, communication and change management as instrumental drivers of business. Earl and Feeny (1994) observed that leadership is critical driver of success and IT strategies. Peppard and Ward (1999) noted that process and structure predicts the firm success. Inappropriate or inadequate structures and processes can adversely affect success of the alignment efforts between business and IT strategies. Yayla and Hu (2009) observed that relationship management, success in IT history, shared knowledge domain, formalization and centralization are key drivers of alignment between business and IT.

2.5 Challenges Faced in Aligning Information Technology and Business Strategies

Successful IT and business strategy alignment require the firm to overcome a number of challenges. In a study by Wang and Rusu (2018), the focus was factors that can hinder the alignment between business and other firm's success. A number of challenges were identified including poor communication and information flow between business and IT functions, unstable software and network challenge and low understanding of IT among staff. The study by Wachinga (2010) used a case of Kenyan banks to appraise the challenges as far as business and IT strategies alignment is concerned. The study identified risk and security related challenges in firms. Although aligning IT and business

strategies can help in reduction of the risks, it may also contribute to a rise in operational risks including concerns about data privacy.

In a study conducted by Bishop (2016), it was noted that inadequate knowledge about IT among managers of the business, lack of customized IT departments thus forcing some firms to outsource the services, limited financial resources, time constraints and competitor pressure are key challenges hindering successful alignment of IT and business strategies. Alaceva and Rusu (2015) did an appraisal of barriers as far as IT/business strategies alignment is concerned. The study noted that comprehension of the counterpart's surrounding, poor communication, non-clear specifications, low level of cooperation, unlimited mutual support and commitment are challenges limiting successful alignment between business and IT strategies.

2.6 Organizational Performance

Organizational performance places emphasis and focus on how effective and efficient the firm runs operations to realize its quality strategic objectives including the vision and mission (Cherny & Madan, 2009). Thus, quality, effectiveness and efficiency are critical pointers of organizational performance. When measuring organizational performance, a comparison between desired goals and the actual output is done. Organization performance is used as an indicator of the health of a firm (Muzny & Simba, 2019). Some researchers like Mirugi and Kinyua (2018) and Gabow and Kinyua (2020) adopted effectiveness and efficiency as measures of organizational performance.

Effectiveness is the degree which an organization successfully meet its goals and objectives. Effectiveness is reflected in the quality which an organization is able to meet

the desired results. Efficiency is the ability to meet results with minimal wastage of resources including costs. Thus, the key emphasis of efficiency as an indicator of performance is on elimination of wastage and unnecessary costs when carrying out work activities. Quality is the extent which the final product conforms to the established and desired standards. An organization should seek to satisfy the needs of the customers in order to remain viable. The productive capacity of employees is an important indicator that informs the overall performance of the firm. Well performing firms generate profits margins that are above an industry average. Remaining profitable thus organizational performance requires firms to keep their costs minimum. The present study was used efficiency, effectiveness, quality, customer satisfaction, employee productivity, profit margin and cost minimization as indicators of organizational performance.

2.7 Information Technology Business Strategies Alignment and Organizational Performance

Croteau and Bergeron (2001) conducted an assessment of business strategy, firm success as well as the deployment of IT on performance value at an organizational level. Staff in their senior management positions was set to complete two questionnaires and the analysis was done through Least Square. It was observed that simultaneous adoption of IT and relevant business strategies contributed towards organizational performance. Kearns and Sabherwal (2006) did an exhaustive appraisal of alignment of business and IT relying on evidence of a survey of 274 information managers. It emerged that placement of emphasis on knowledge management and having in placed centralized IT decision has an effect on the IT knowledge of those in management in the firm. This was seen to be an enabler for business managers to take part in IT-business strategies alignment. Chou,

Wang and Yang (2015) did a review of firm strategic alignment and its implication on firm growth at business level. The study reviewed firms selling and designing tools in Taiwan. The study noted existence of a significant nexus between IT and business alignment in reference to business performance. McAdam, Bititci and Galbraith (2017) analyzed how technology and business strategy alignment impacts on performance.

Borrowing interview information, it emerged that IT-business strategy alignment significantly contributes to better organizational performance. Slim, Sarah, Kadhim, Ali, Hammood and Othman (2021) conducted an analysis of IT business alignment issues impacting on ability of SMEs to perform within the context of Iraq. The study adopted competency, governance and communication as indicators of alignment. The study noted existence of strong and positive nexus between IT-business strategies alignment and performance. Qatawneh (2019) used evidence from Jordan linking strategic alignment of IT and business strategies and performance. Survey of IT professionals was conducted and the analysis was supported by Structural Equation Modeling (SEM). The study observed that strategic business-IT alignment has significant positive effect on organizational performance. In Kenya, Muthaura (2021) did an appraisal of strategic alignment and its nexus with performance focusing on commercial banks. The variables covered include business cultural alignment, organizational structural alignment, resource alignment and technology alignment. It was shown that strategic alignment contributed towards an enhancement in organizational performance.

Chege, Nyamboga and Wanyembi (2018) did an analysis of business-IT alignment and performance at business level. The focus of the study was on commercial banks. In total, 39 commercial banks were covered. Leveraging correlational design, it emerged that

some banks have successfully aligned their business and IT operations. It also emerged that higher business-IT strategies alignment is associated with better business performance.

2.8 Summary of Literature and Knowledge Gap

Author and year	Study	Key Finding	Research Gap	Focus of present study
Slim, Sarah, Kadhim, Ali, Hammood and Othman (2021)	an analysis of IT business alignment issues impacting on ability of SMEs to perform within the context of Iraq	Noted existence of strong and positive nexus between IT-management in business strategies and the success of firms.	The study was done in Iraq that is contextually different from Kenya	The present focused in Kenya
Muthaura (2021)	An appraisal of strategic alignment and its nexus with performance	Strategic alignment contributed towards an enhancement in organizational performance.	The study focused on strategic alignment which is	The present study focused on IT-business strategies alignment

	focusing on commercial banks.		conceptually different from IT-business strategy alignment	
Wang and Rusu (2018),	Factors that can hinder the alignment between business and firm success in China.	A number of challenges were identified including poor communication and information flow between IT and business functions, unstable software and network challenge and low understanding of IT among staff.	The study focus on SMEs in China	Fintechs in Kenya were studied

2.9 Conceptual Framework

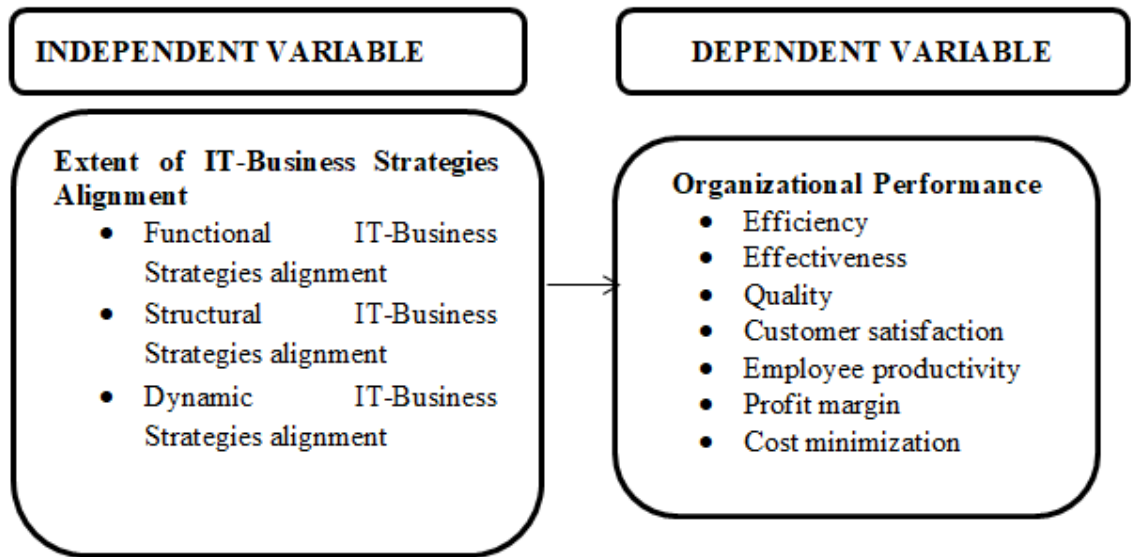


Figure 2.4: Conceptual Framework

Figure 2.4 presents the conceptual framework that will be used to guide the study. In this framework, the main independent variable Information Technology-Business Strategy Alignment is represented by functional IT-business strategies alignment as well as structural IT-business strategies alignment and dynamic IT-business strategies alignment as its indicators. The dependent variable being organizational performance is represented by efficiency, effectiveness and quality, customer satisfaction, employee productivity, profit margin and cost minimization as the measures.

CHAPTER THREE: RESEARCH METHODS

3.1 Introduction

This section indicates the methods to be used. It also covers the data collection style. In addition, population and analysis method to be adopted are also outlined. The models are provided based on the aim of the inquiry.

3.2 Research Design

Cross-sectional as well as descriptive designs were adopted. This addressed the study's purpose. In addition, the design helped to collect large volumes of data. According to Dźwigoł (2019), this design is suitable when dealing with more than one firm. The design helped to give an account and description of the current state of IT-business strategies alignment that define firm success among fin-tech firms in Nairobi. This helped to address the research questions.

3.3 Population of the Study

This study targeted all fintech firms with operations in Nairobi which are 56 in total (Fin-Tech, 2022). The study adopted all the firms. This means that this is a census study. Census study mostly deals with the whole target firms.

3.5 Data Collection

This study used questionnaires to collect data. The rationale of selecting on primary data is because it is first hand and thus not prone to biasness. The questionnaire is divided into sections covering the general information, extent of IT-business strategies alignment,

drivers of IT-business strategies alignment, challenges faced by firms when using digital models and how this affects their performance. The respondents included the IT managers, learning and strategy officers as well as the finance managers from the fintech firms in Nairobi. These respondents were selected because they are deemed to have relevant information on IT, strategies and performance of their firms respective which the present study sought to gather. The questionnaire was administered to respondents by self, this will provide a chance to respondents to indicate any specific challenges they might in responding to the questionnaire.

3.6 Data Analysis

The analysis of the findings was guided by SPSS version 24 through frequencies and percentages for the general information, means and standard deviations for with regard to extent of business and IT strategies alignment and how it influence the firm productivity. drivers , challenges faced in alignment of business and information IT strategies as well as organizational performance. The last objective that focuses on the relationship between alignment of information technology and business strategies and organizational performance was analyzed through correlation and regression analysis. This was guided by a model. Below is the regression model used:

The study adopted the following regression model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Where

The dependent variable (Dv) is Y-Organizational performance (as a composite score of efficiency, effectiveness and quality, customer satisfaction, employee productivity, profit margin and cost minimization)

The independent variable is Information Technology-Business Strategy Alignment is represented by functional IT-business strategies alignment, structural IT-business strategies alignment and dynamic IT-business strategies alignment as its indicators. These are specified in the above model as X_1 , X_2 & X_3 respectively and discussed below:

X_1 - Functional IT-Business Strategies alignment

X_2 - Structural IT-Business Strategies alignment

X_3 - Dynamic IT-Business Strategies alignment

ϵ is the error term

β_0 is the regression beta coefficient

The results were presented through tables.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

Chapter four presents the data analysis guided by specific objectives. It discusses the response rate, demographics, analysis based on the study objective and lastly a discussion on the findings.

4.2 Response Rate

Out of the 56 questionnaires administered to fintech firms with operations in Nairobi, 41 were dully filled and submitted back for data analysis. This represents a response rate of 73.2%, consistent with Lietz and Zayas (2010), who held that an above 70% rate is ideal for data processing. This is reported in Table 4.1.

Table 4.1: Response Rate

	Frequency	Percentage
Response	41	73.2
Non response	15	26.8
Total	65	100.0

Source: Field Data (2022)

4.3 Reliability Results

The questionnaire underwent pilot testing to determine its reliability. This was done by computing the Cronbach Alpha coefficient values as summarized in Table 4.2.

Table 4.2: Reliability Results

	No. of Items	Cronbach Alpha Coefficients
Functional IT and Business Strategies Alignment	4	.765
Structural IT and Business Strategies Alignment	4	.885
Dynamic IT and Business Strategies Alignment	4	.973
Drivers Of IT and Business Strategies Alignment	6	.769
Challenges Faced In IT And Business Strategy Alignment	7	.773
Organizational Performance	7	.813
Average		.830

Source: Field Data (2022)

Table 4.2 indicates the overall value of Cronbach Alpha Coefficient as 0.830. This means that the scale used in the questionnaire design was reliable and thus in line with Ercan, Yazici, Sigirli, Ediz, and Kan (2007), who shared that such values above 0.7 signify reliability.

4.4 Demographic Information

The Demographics of the study respondents was analyzed and the findings are presented below.

Table 4.3: Demographic Information

Category	Classification	Frequency	Percentage
age bracket	25 years or less	6	14.6%
	26 years - 35 years	5	12.2%
	36 years - 40 years	18	43.9%
	41 years - 45 years	6	14.6%
	46 years - 55yrs	6	14.6%
	Total	41	100%
Gender	Male	27	65.9
	Female	14	34.1
	Total	41	100%
highest level of Education	High School	6	14.6
	Bachelor Degree	23	56.1
	Graduate Degree	12	29.3
	Total	41	100%
Year of experience	5 years or less	9	22.0
	6-10 years	26	63.4
	11-15 years	6	14.6
	Total	41	100%
Years of Operation	Less than 5 years	3	7.3
	5-10 years	9	22.0
	11-15 years	17	41.5
	Over 15 years	12	29.3
	Total	41	100 %
the ownership of firm	Local	30	73.2
	Domestic	10	24.4
	International	1	2.4
	Total	41	100%
average turnover generated	Less than 50 million KES	3	7.3
	51-100 million KES	9	22.0
	101-150 million KES	8	19.5
	151-200 million KES	12	29.3
	201-250 million KES	6	14.6
	Over 250 million KES	3	7.3
	Total	41	100%

Table 4.3 shows that 14.6% of the respondents were 25 years old or less. Also, while 43.9% of participants were 36-40 years of age, 12.2% were 26-35 years. In addition, 14.6% of between the ages 41-45 and 46-55, respectively.

For the Gender, there were 27 male participants, which amounted to 65.9% of the participants. As for the female, 14 of the participants were female. This account for 34.1% of the participants.

In terms of the highest level of education, 56.1% had bachelor's degrees, whereas 14.6% had attained a high school education, 12 of the participants have a graduate degree. This constitutes 29.3% of the participants of the study.

With respect to the years of experience, 22% of the participant had 5 years of experience or less 63.4% had worked for 6-10 years and 14.6% for 11-15 years. While 41.5% of the firms had been operating for 11-15 years, 7.3% had operated for less than 5 years. 29.3% of the participants had operated for over 15 years.

It was shown that while 73.2% of the firms were locally owned, 24.4% were domestically owned. 2.4% were international.

On average, while majority of the firms being 29.3% did generated Kshs. 151-200 million in turnover, 7.3% generated over 250 million.

This study sought to determine the current positions of the respondents. From the findings, It emerged that while some of the respondents were IT managers, others were learning and strategy officers as well as the finance managers. The study sought further to establish the number of employees in the studied firms. On average, the study observed that the firms had 80-150 employees.

4.5 Extent of IT and business strategies alignment among fintech firms

This study was set out to establish the extent of IT-business strategies alignment among the fintech firms.

4.5.1 Functional IT-Business Strategies Alignment

Table 4.4 is a breakdown of results on functional IT and business strategies alignment.

Table 4.4: Functional IT-Business Strategies Alignment

Statements On Functional IT-Business Strategies Alignment	Mean	Std. Dev
This firm has functional IT-business strategies alignment at the departmental level	3.66	0.855
Most of the decisions made at the departmental level are operational in nature.	4.07	0.721
During functional IT-business strategies alignment, strong emphasis is placed on practicality	3.88	0.872
The IT department works together with other functions in this firm	3.90	0.700
Average	3.88	0.787

Source: Field Data (2022)

The results in Table 4.4 indicate functional IT-business strategies alignment in the studied fintech (M=3.88, SD=0.787). Most of the decisions made at the departmental level were operational in nature (M=4.07, SD=0.721) and the IT department worked together with other functions (M=3.90, SD=0.700). It was shown that during functional IT-business strategies alignment, a strong emphasis was placed on practicality (M=3.88, SD=0.872) and that the firm had functional IT-business strategies alignment at the departmental level (M=3.66, SD=0.855).

4.5.2 Structural IT-Business Strategies Alignment

Table 4.5 summarizes the descriptive statistics on structural IT and business strategies alignment.

Table 4.5: Structural IT-Business Strategies Alignment

Statements On Structural IT-Business Strategies Alignment	Mean	Std. Dev
Structural IT-Business strategies alignment involves design of the systems that permit coordination of activities in this firm	3.83	0.629
IT is integrated with the existing organizational structures in this firm	3.63	0.859
Formalization of structures is the key activity done during structural IT- business strategies alignment	3.83	0.863
Having an open organizational structure permit allow the firm to deploy IT in operations	4.02	0.724
Average	3.83	0.769

Source: Field Data (2022)

From Table 4.5, the key finding is that structural IT-business strategies alignment was in place in the studied firms (M=3.83, SD=0.769). The results indicate that having an open organizational structure permit allowed the firm to deploy IT in operations (M=4.02, SD=0.724) and that formalization of structures was the key activity done during structural IT- business strategies alignment (M=3.83, SD=0.863). It was noted that structural IT-Business strategies alignment involved design of the systems that permitted coordination of activities (M=3.83, SD=0.629).

4.5.3 Dynamic IT-Business Strategies Alignment

Table 4.6 presents the descriptive analysis on dynamic IT and business strategies alignment

Table 4.6: Dynamic IT-Business Strategies Alignment

Statements On Dynamic IT-Business Strategies Alignment	Mean	Std. Dev
Dynamic IT-business strategies alignment is about determination of the changes in market conditions in this firm	3.68	0.610
The dynamic business environment has necessitated the firm to maintain relevant technologies	3.80	0.954
The firm seeks to maximize the returns arising from investing in IT to carry out operations	3.76	0.969
As the environment keeps on changing, so does the exiting IT systems in this firm	4.02	0.612
Average	3.82	0.786

Source: Field Data (2022)

Table 4.6 shows that there was dynamic IT-business strategies alignment in the studied fintechs (M=3.82, SD=0.786). It was shown that as the environment kept on changing, so did the existing IT systems in the firm (M=4.02, SD=0.612) and that the dynamic business environment had necessitated the firm to maintain relevant technologies (M=3.80, SD=0.954). The findings showed that the firm sought to maximize the returns arising from investing in IT to carry out operations (M=3.76, SD=0.969) and that dynamic IT-business strategies alignment was about the determination of the changes in market conditions in the firm (M=3.68, SD=0.610).

4.6 Drivers of IT-business strategies alignment among fintech firms

The descriptive statistics on drivers of IT-business strategies alignment are in Table 4.7

Table 4.7: Drivers of IT-business strategies alignment among fintech firms

	Mean	Std. Dev
The strong shared domain knowledge has driven IT-business strategies alignment	4.07	0.565
The conducive working relationship among staff has driven IT-business strategies alignment	3.94	0.897
The competency of staff is a driver of IT-business strategies alignment	3.80	0.901
The intention of management is a driver towards IT-business strategies alignment	3.78	0.690
The change management ability has driven IT-business strategies alignment	3.76	0.435
The ability to plan has driven IT-business strategies alignment	3.63	0.994

Source: Field Data (2022)

Table 4.7 shares several drivers of IT-business strategies alignment among fintech firms. These include strong shared domain knowledge (M=4.07, SD=0.565), conducive working relationships among staff (M=3.94, SD=0.897), and competency of staff (M=3.80, SD=0.901). Other drivers include the intention of management (M=3.78, SD=0.690), change management ability (M=3.76, SD=0.435), and the ability to plan (M=3.63, SD=0.994).

4.7 Challenges faced in alignment of IT and business strategies

Table 4.8 gives an overview of the results on challenges faced in IT and business strategy alignment among fintech firms.

Table 4.8: Challenges faced in alignment of information technology and business strategies among fintech firms

	Mean	Std. Dev
The limited financial resources has challenged IT-business strategies alignment	3.90	0.700
The low level of understanding of IT among staff is a challenge faced during IT-business strategies alignment	3.86	0.617
The existing unstable software has been a challenge when it comes to IT-business strategies alignment	3.80	0.901
Lack of customized IT departments has forced the firm to outsource some of the core IT capabilities	3.79	0.573
The unlimited mutual support is a challenge during IT-business strategies alignment	3.78	0.872
Poor communication has been a challenge when it comes to IT-business strategies alignment	3.75	0.498
Time constraint has been a challenge when it comes to IT-business strategies alignment	3.72	0.573

Source: Field Data (2022)

The study established several challenges that the fintech faced during information technology and business strategy alignment as reported in Table 4.8. These include limited financial resources (M=3.90, SD=0.700), low level of understanding of IT among staff (M=3.86, SD=0.617) as well as the existing unstable software (M=3.80, SD= 0.901). Other challenges include lack of customized IT departments forcing the need to outsource some of the core IT capabilities (M=3.79, SD=0.573), unlimited mutual support (M=3.78, SD=0.872), poor communication (M=3.75, SD=0.498) as well as time constraint (M=3.72, SD=0.573).

4.8 IT-business strategies alignment and Organizational Performance

The relationship between IT-business strategies alignment and organizational performance was explored through regression analysis.

Table 4.9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.825 ^a	.681	.655	1.11499

Source: Field Data (2022)

Table 4.9 present the model summary.

A coefficient of 0.681 shows that the independent variables in the study explain 68.1% of the changes in organizational performance of fintech. The findings also indicate that a 65.5% change in the organizational performance of fintech is explained by IT and business strategies alignment. This implies that besides IT and business strategies alignment, other factors affect organizational performance.

Table 4.10: ANOVA Findings

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	98.196	3	32.732	26.329	.000 ^b
Residual	45.999	37	1.243		
Total	144.195	40			

Source: Field Data (2022)

Table 4.10 presents the findings after performing an Analysis of Variance (ANOVA). The results indicate a statistically significant regression model (F=26.329, p<0.05). The results of beta coefficients and significance were determined and represented in Table 4.11.

Table 4.11: Coefficients and Significance

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	6.125	1.240		4.940	.027
Functional IT Business Strategies Alignment	.735	.124	.417	5.927	.013
Structural IT Business Strategies Alignment	.642	.191	.566	3.361	.000
Dynamic IT Business Strategies Alignment	.526	.140	.406	3.757	.031

Source: Field Data (2022)

From Table 4.11, the following equation is predicted:

$$Y=6.125+0.735X_1+0.642X_2+0.526X_3$$

Where;

The dependent variable (Dv) is Y-Organizational performance (as a composite score of efficiency, effectiveness and quality, customer satisfaction, employee productivity, profit margin and cost minimization)

X₁- Functional IT-Business Strategies alignment

X₂- Structural IT-Business Strategies alignment

X₃- Dynamic IT-Business Strategies alignment

In terms of beta coefficients, the study observed that increasing functional IT business strategies alignment by a unit would lead to a 0.735 unit increase in organizational performance among fintech firms in Nairobi. The study observed that increasing structural IT-business strategies alignment by a unit would lead to a 0.642 increase in organizational performance among fintech firms in Nairobi. The study noted that

increasing dynamic IT-business strategies alignment by a unit would lead to 0.526 unit improvement in organizational performance among fintech firms in Nairobi. At 5%, the study showed that functional IT business strategies alignment, structural IT-business strategies alignment, and dynamic IT-business strategies alignment ($p < 0.05$ & $t > 1.96$) were significant predictors of organizational performance among fintech firms in Nairobi.

4.9 Discussion

The study observed that fintech in Nairobi has adopted between IT-business strategies alignment to a great extent. Some of the aspects of IT-business strategies alignment that had been embraced include functional IT-Business strategies alignment ($M=3.88$), structural IT-Business strategies alignment ($M=3.83$) as well as dynamic IT-business strategies alignment ($M=3.82$). This finding agrees with Gerow, Thatcher, and Grover (2015), who noted that the literature points out different measures of IT-business strategy alignment, including functional, structural, and dynamic alignment. Similarly, Gutierrez, Mylonadis, Corozco, and Serrano (2008) said that IT-business strategy alignment can take place at the strategic, tactical as well as operational levels of the firm.

There are several drivers of IT-business strategies alignment among fintech firms. These include strong shared domain knowledge ($M=4.07$, $SD=0.565$), conducive working relationships among staff ($M=3.94$, $SD=0.897$), and competency of staff ($M=3.80$, $SD=0.901$). This finding agrees with Seman and Salim (2013). They shared that strong support by those in management, sound working relationships, supportive leadership, proper communication and trust are drivers of a firm's success. Other drivers include intention of management ($M=3.78$, $SD=0.690$), change management ability ($M=3.76$,

SD=0.435) and the ability to plan (M=3.63, SD=0.994). These findings agree with the SAM model where Wasiuk and Lim (2021) listed them as adoption of effective communication, ensuring high level of governance, and considering different skills and scope of the work.

The study established a number of challenges that the fintech faced during information technology and business strategy alignment. These include limited financial resources (M=3.90, SD=0.700), low level of understanding of IT among staff (M=3.86, SD=0.617) as well as the existing unstable software (M=3.80, SD=0.901). These findings are consistent with Wang and Rusu (2018), who focused on factors hindering the alignment between business and other firms' success. Several challenges were identified, including poor communication and information flow between IT and business functions, unstable software and network challenges, and low understanding of IT among staff. Other challenges include a lack of customized IT departments forcing the need to outsource some of the core IT capabilities (M=3.79, SD=0.573), unlimited mutual support (M=3.78, SD=0.872), poor communication (M=3.75, SD=0.498) as well as time constraint (M=3.72, SD=0.573). The findings agree with Bishop (2016), who noted that inadequate knowledge about IT among managers of the business, lack of customized IT departments thus forcing some firms to outsource the services, limited financial resources, time constraints and competitor pressure are key challenges hindering successful alignment of IT and business strategies. Alaceva and Rusu (2015) noted that comprehension of the counterpart's surroundings, poor communication, non-clear specifications, low level of cooperation, unlimited mutual support and commitment are challenges limiting successful alignment between business and strategies.

The study observed that sixty-Five point five percent change in performance of fintech is explained by IT and business strategies alignment. The study observed that functional IT business strategies alignment had the greatest relationship with the organizational performance of fintech followed by structural and dynamic IT-business strategies alignment. In terms of significance, it was shown that functional, structural and dynamic strategy alignment were all significant. These findings are consistent with Croteau and Bergeron (2001), who observed that simultaneous adoption of IT and relevant business strategies contributed to organizational performance. Chou, Wang and Yang (2015) noted existence of a significant nexus between IT and business alignment about business performance. McAdam, Bititci and Galbraith (2017) established that IT-business strategy alignment significantly contributes to better organizational performance. Slim, Sarah, Kadhim, Ali, Hammood, and Othman (2021) noted the existence of a strong and positive nexus between IT-business strategies alignment and performance. Qatawneh (2019) observed that strategic business-IT alignment significantly positively affects organizational performance. Muthaura (2021) showed that strategic alignment contributed to an enhancement in organizational performance. Chege, Nyamboga, and Wanyembi (2018) established that higher business-IT strategies alignment is associated with better business performance.

CHAPTER FIVE: SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

Chapter five offers a summary of the analyzed results and the conclusion. It also provides recommendations, list the limiting factors and suggests areas for further study.

5.2 Summary of the Study

The study observed that fintech in Nairobi has adopted between IT-business strategies alignment to a great extent. Some aspects of IT and business strategies alignment that have been embraced include functional, structural, and dynamic IT business strategies alignment. In regard to Functional IT-Business Strategies Alignment, Most of the decisions made at the departmental level were operational in nature and that the IT department worked together with other functions. For structural IT-business strategies alignment, it was indicated that having an open organizational structure permit allowed the firm to deploy IT in operations and that formalization of structures was the key activity done during structural IT- business strategies alignment. In view of dynamic IT-business strategies alignment, it was shown that as the environment kept on changing, so did the existing IT systems in the firm and that the dynamic business environment had necessitated the firm to maintain relevant technologies.

There are a number of drivers of IT-business strategies alignment among fintech firms. These include the strong shared domain knowledge, conducive working relationship among staff and competency of staff. Other drivers include the intention of management, change management ability and the ability to plan.

The study established many challenges that the fintech faced during information technology and business strategy alignment. These include limited financial resources, low level of understanding of IT among staff, and the existing unstable software. Other challenges include lack of customized IT departments forcing the need to outsource some

of the core IT capabilities, unlimited mutual support, poor communication, and time constraints.

The study observed that sixty-five point five percent change in organizational performance of fintech is explained by IT-business strategies alignment. The study observed functional IT business strategies alignment had the greatest relationship with organizational performance of fintech followed by structural and dynamic IT-business strategies alignment. In terms of significance, it was shown that, structural and dynamic IT-business strategies alignment were all significant.

5.3 Conclusion

Fntechs in Nairobi have adopted between IT-business strategies alignment that includes IT-business strategies alignment that had been embraced include functional, structural, and dynamic IT-business strategies alignment. Most of the decisions made at the departmental level were operational in nature. Having an open organizational structure permit allowed the firm to deploy IT in operations. The environment kept on changing, so did the exiting IT systems in the firm.

The drivers of IT-business strategies alignment among fintech firms include strong shared domain knowledge, conducive working relationship among staff, and staff competency. Other drivers include the intention of management, change management ability and the ability to plan.

The challenges an organization faces during information technology and business strategy alignment include limited financial resources, low level of understanding of IT among staff, and the existing unstable software. Other challenges include lack of customized IT departments forcing the need to outsource some of the core IT capabilities, unlimited mutual support, poor communication, and time constraints.

Functional IT business strategies alignment had the greatest relationship with the organizational performance of fintech followed by structural and dynamic IT-business strategies alignment. In terms of significance, it was shown that functional, structural and dynamic IT-business strategies alignment were all significant.

5.4 Recommendations of the Study

The top leadership and management team working in fintechs in Nairobi should cultivate good working relationship with other staff as this drives between IT-business strategies alignment in an organization. The human resource managers working among fintechs in Nairobi should enhance employee competency through training to drive IT-business strategies alignment. The top management of fintech firms in Nairobi should show their strong intention and commitment towards IT-business strategies alignment.

5.5 Limitations of the Study

The focus of the study was on 56 fintech firms in Nairobi. This is a limitation as it limits the generalization of results to the rest of technology-based firms. IT-business strategies alignment was an independent while organizational performance was the dependent variables. Theoretically, the study is limited to two theories: the Strategic Alignment Model (SAM) and the technology acceptance model.

5.6 Suggestions for Further Research

The study noted that 65.5% change in the organizational performance of fintech is explained by IT-business strategies alignment. This implies that in addition to IT-business strategies alignment, there are still other factors that were not explored in the present inquiry which should be the basis of future research. Future studies should bring in other variables like the intervening or moderating variable and the ones covered.

REFERENCES

- Alaceva, C., & Rusu, L. (2015). Barriers in achieving business/IT alignment in a large Swedish company: What we have learned?. *Computers in human behavior*, 51, 715-728.
- Alfadhel, S. A., Liu, S., & Oderanti, F. O. (2019). Business and information system alignment theories built on e-government service practice: an holistic literature review. *Application of Decision Science in Business and Management*.
- Alzayed, A., & Alraggas, B. (2014). The alignment of information technology and business strategy in the Kuwaiti companies. *International Journal of Computer Applications*, 101(7).
- Anuar, H. S., & Md Kamruzzaman, M. K. (2017). Improving organizational performance through strategic fit of it-business strategic alignment. *International Journal of Economics, Commerce and Management*, (12), 1047-1054.
- Bishop, W. A. (2016). Addressing the challenge of strategic alignment faced by small and medium-sized entities during the selection of accounting software packages.
- Buchalcevova, A., & Pour, J. (2018). Business-IT Alignment within the Management of
- Chebrolu, S. B., & Ness, L. (2013). How does alignment of business and IT strategies impact aspects of IT effectiveness?. *International Journal of Applied Management and Technology*, 12(1), 1.
- Chege, S., Nyamboga, C., & Wanyembi, G. (2018). The relationship between the business-IT alignment maturity and the business performance for the banking industry in Kenya. *International Journal of Technology and Systems*, 3(1), 1-22.
- Cherny, A., & Madan, D. (2009). New measures for performance evaluation. *The Review of Financial Studies*, 22(7), 2571-2606

- Chou, F. K., Wang, E. T., & Yang, F. W. (2015). Realizing IT strategic alignment and business performance: An integration of three perspectives.
- Dairo, M., Adekola, J., Apostolopoulos, C., & Tsaramirsis, G. (2021). Benchmarking strategic alignment of business and IT strategies: opportunities, risks, challenges and solutions. *International Journal of Information Technology*, 13(6), 2191-2197.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.
- Dźwigoł, H. (2019). Research methods and techniques in new management trends: research results. *Virtual Economics*, 2(1), 31-48.
- Earl, M. J., & Feeny, D. F. (1994). Is your CIO adding value?. *Sloan Management Review*, 35, 11-11.
- Elmorshidy, A. (2013). Aligning IT with business objectives: A critical survival and success factor in today's business. *Journal of Applied Business Research (JABR)*, 29(3), 819-828.
- Ercan, I., Yazici, B., Sigirli, D., Ediz, B., & Kan, I. (2007). Examining Cronbach alpha, theta, omega reliability coefficients according to sample size. *Journal of modern applied statistical methods*, 6(1), 27.
- Fin-Tech, (2022). Trends and Developments <https://practiceguides.chambers.com/practice-guides/fintech-2022/kenya/trends-and-developments>
- Gabow, O. S. & Kinyua, G. (2018). Relationship between Strategic Intent and Performance of Kenya Commercial Bank in Nairobi City County, Kenya. *International Journal of Innovative Research and Advanced Studies*, 5(11): 149-157
- Gartlan, J., & Shanks, G. (2007). The alignment of business and information technology strategy in Australia. *Australasian journal of information systems*, 14(2).

- Gerow, J. E., Thatcher, J. B., & Grover, V. (2015). Six types of IT-business strategic alignment: an investigation of the constructs and their measurement. *European Journal of Information Systems*, 24(5), 465-491.
- Croteau, A. M., & Bergeron, F. (2001). An information technology trilogy: business strategy, technological deployment and organizational performance. *The journal of strategic information systems*, 10(2), 77-99.
- Gutierrez, A., Mylonadis, C., Orozco, J., & Serrano, A. (2008). Business-IS alignment: assessment process to align IT projects with business strategy. *AMCIS 2008 Proceedings*, 290.
- Henderson, J. C., & Venkatraman, N. (1989). Strategic alignment: a framework for strategic information technology management. *Center for Information Systems Research*
- Jonathan, G. M., Rusu, L., & Van Grembergen, W. (2021). Business-IT Alignment and Digital Transformation: Setting A Research Agenda. In *29th International Conference on Information Systems Development*. Association for Information Systems (AIS).
- Kearns, G. S., & Sabherwal, R. (2006). Strategic alignment between business and information technology: a knowledge-based view of behaviors, outcome, and consequences. *Journal of management information systems*, 23(3), 129-162.
- Khan, M. A. (2017). Investigation of Critical Factors that Perturb Business-IT Alignment in Organizations. *International Journal of Advanced Computer Science and Applications*, 8(5).
- Kiilu, N. (2018). *Effect Of Fintech Firms On Financial Performance Of The Banking Sector In Kenya* (Doctoral dissertation, University of Nairobi).
- King, M., Cragg, P., & Hussin, H. (2000). IT Alignment and Organizational Performance in Small Firms.

- Koskei, I. J. (2016). *Strategic alignment and information technology on the performance of east African Portland cement company ltd in Kenya* (Doctoral dissertation, University of Nairobi).
- KPMG (2017). *The Pulse of Fintech*
- Lietz, C. A., & Zayas, L. E. (2010). Evaluating qualitative research for social work practitioners. *Advances in Social work, 11*(2), 188-202.
- Malik, A., Sharma, P., Kingshott, R., & Laker, B. (2022). Leveraging cultural and relational capabilities for business model innovation: The case of a digital media EMMNE. *Journal of Business Research, 149*, 270-282.
- McAdam, R., Bititci, U., & Galbraith, B. (2017). Technology alignment and business strategy: A performance measurement and dynamic capability perspective. *International Journal of Production Research, 55*(23), 7168-7186.
- Mirugi, T., & Kinyua, G. M. (2018). Analysis of the Effect of Block Ownership on Performance of Listed Commercial Banks in Nairobi County, Kenya. *The Strategic Journal of Business and Change Management, 5*(4), 62180-2188.
- Muthaura, M. K. (2021). Strategic Alignment And Performance Of Commercial Banks In Nyeri County, Kenya.
- Muzny, A. M., & Simba, F. (2019). Influence of turnaround strategies on organizational performance: A case of coast development authority, Kenya. *The Strategic Journal of Business & Change Management, 6*(2), 225-243.
- Njanka, S. Q., Sandula, G., & Colomo-Palacios, R. (2021). IT-Business Alignment: A Systematic Literature Review. *Procedia Computer Science, 181*, 333-340.
- Ogaga, B., & Awino, B. Z. (2019). Corporate Strategy, Organizational Structure and Organizational Performance of Listed Companies in Emerging Markets: Kenyan Perspective. *International Journal of Economics, Business and Management Research, 3*(2), 125-143.

- Ogbo, A. I., Chibueze, N. F., Christopher, O. C., & Anthony, I. A. (2015). Impact of structure on organizational performance of selected technical and service firms in Nigeria. *Corporate Ownership & Control*, 13(1), 1278-1284.
- Padayachee, I., & Shano, R. M. (2019). Factors influencing IT-business strategic alignment in the context of business process re-engineering. *Journal of Contemporary Management*, 16(2), 621-652.
- Pashutan, M., Abdolvand, N., & Harandi, S. R. (2022). The impact of IT resources and strategic alignment on organizational performance: The moderating role of environmental uncertainty. *Digital Business*, 2(2), 100026.
- Peppard, J., & Ward, J. (1999). 'Mind the Gap': diagnosing the relationship between the IT organization and the rest of the business. *The Journal of Strategic Information Systems*, 8(1), 29-60.
- Pierce, A. C. (2002). *The effect of business and information technology strategic alignment on information technology investment returns and corporate performance*. Nova Southeastern University.
- Qatawneh, N. (2019). *Investigating sustainable strategic alignment of IT-business and organisational performance: the role of business excellence in Jordan* (Doctoral dissertation, Brunel University London).
- Seman, E. A. A., & Salim, J. (2013). A model for business-IT alignment in Malaysian public universities. *Procedia Technology*, 11, 1135-1141.
- Slim, A., Sarah, O., Kadhim, K., Ali, B., Hammood, A., & Othman, B. (2021). The effect of information technology business alignment factors on performance of SMEs. *Management Science Letters*, 11(3), 833-842.
- The Financial Stability Board (2017). Financial Stability Implications from FinTech Supervisory and Regulatory Issues that Merit Authorities' Attention. Retrieved at <https://www.fsb.org/wp-content/uploads/R270617.pdf>

- Tripathi, D. (2022). Evaluating the factors influencing Alignment of IT and Business in a Cloud Computing Environment. *Journal of International Technology and Information Management*, 30(5), 29-76.
- Venkatraman, N., Henderson, J. C., & Oldach, S. (1993). Continuous strategic alignment: Exploiting information technology capabilities for competitive success. *European Management Journal*, 11(2), 139-149.
- Vives, X. (2017). The Impact of Fintech on Banking, Europeye srl via Gregorio VII 368 - 00165 Roma.
- Wachinga, H. (2010). *Challenges of Information Technology alignment to business strategy: A case of commercial banks in Kenya* (Doctoral dissertation, University of Nairobi, Kenya).
- Wang, J., & Rusu, L. (2018). Factors hindering business-IT alignment in small and medium enterprises in China. *Procedia computer science*, 138, 425-432.
- Wasiuk, T., & Lim, F. P. C. (2021). Factors Influencing Business IT Alignment. *International Journal of Smart Business and Technology*, 9(1), 1-12.
- Waweru Z. K., & Wausi, A. N. (2017). The Influence Of Aligning Information Technology (It) Strategy, Performance Contract And It Organizational Structure On Institutional Performance. Case Of Kenyan Public Universities. *International Journal of Managing Public Sector Information and Communication Technologies* 8(2)
- Yayla, A. A., & Hu, Q. (2009). Antecedents and drivers of IT-business strategic alignment: Empirical validation of a theoretical model.

APPENDIX 1: QUESTIONNAIRE

SECTION A: GENERAL INFORMATION

Respondent Information

1. Indicate the age bracket in which your age group falls
25 years or less ()
26 years - 35 years ()
36 years - 40 years ()
41 years - 45 years ()
46 years - 55yrs ()
Above 55 years ()

2. Indicate your Gender
Male () Female ()

3. What is your highest level of Education?
High School () Bachelor Degree () Graduate Degree ()
Others, specify _____

4. State your current position in the firm

5. Kindly indicate the number of years you have been working in this firm
5 years or less ()
6-10 years ()
11-15 years ()
Over 15 years ()

6. Kindly indicate the number of years your firm has been in operation in Nairobi?
Less than 5 years ()
5-10 years ()
11-15 years ()
Over 15 years ()

7. How many employees does the firm have?

8. Kindly indicate the ownership of your firm?
Local ()
Domestic ()
International ()
Others, specify

9. Please, indicate the average turnover generated by your firm per year
Less than 50 million KES ()

- 51-100 million KES ()
- 101-150 million KES ()
- 151-200 million KES ()
- 201-250 million KES ()
- Over 250 million KES ()

SECTION B: EXTENT OF IT-BUSINESS STRATEGIES ALIGNMENT AMONG FINTECH FIRMS IN NAIROBI CITY COUNTY, KENYA

10. This refers to the firm. Kindly provide relevant responses based on the scale of 1-5 by way of ticking.

Strongly disagree (1), Disagree (2), Undecided (3), Agree (4), Strongly Agree (5)

Statements On Functional IT-Business Strategies Alignment	Strongly disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly agree 5
This firm has functional IT-business strategies alignment at the departmental level					
Most of the decisions made at the departmental level are operational in nature.					
During functional IT-business strategies alignment, strong emphasis is placed on practicality					
The IT department works together with other functions in this firm					

Statements On Structural IT-Business Strategies Alignment	Strongly disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly agree 5
Structural IT-Business strategies alignment involves design of the systems that permit coordination of activities in this firm					
IT is integrated with the					

existing organizational structures in this firm					
Formalization of structures is the key activity done during structural IT- business strategies alignment					
Having an open organizational structure permit allow the firm to deploy IT in operations					

Statements On Dynamic IT-Business Strategies Alignment	Strongly disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly agree 5
Dynamic IT-business strategies alignment is about determination of the changes in market conditions in this firm					
The dynamic business environment has necessitated the firm to maintain relevant technologies					
The firm seeks to maximize the returns arising from investing in IT to carry out operations					
As the environment keeps on changing, so does the exiting IT systems in this firm					

**SECTION C: DRIVERS OF IT-BUSINESS STRATEGIES ALIGNMENT
AMONG FINTECH FIRMS IN NAIROBI CITY COUNTY, KENYA**

11. This refers to the firm. Kindly provide relevant responses based on the scale of 1-5 by way of ticking.

Strongly disagree (1), Disagree (2), Undecided (3), Agree (4), Strongly Agree (5)

	Strongly disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly agree 5
The intention of management is a driver towards IT-business strategies alignment					
The conducive working relationship among staff has driven IT-business strategies alignment					
The strong shared domain knowledge has driven IT-business strategies alignment					
The competency of staff is a driver of IT-business strategies alignment					
The change management ability has driven IT-business strategies alignment					
The ability to plan has driven IT-business strategies alignment					

SECTION D: CHALLENGES FACED IN INFORMATION TECHNOLOGY AND BUSINESS STRATEGY ALIGNMENT AMONG FINTECH FIRMS IN NAIROBI CITY COUNTY, KENYA

12. This refers to the firm. Kindly provide relevant responses based on the scale of 1-5 by way of ticking.

Strongly disagree (1), Disagree (2), Undecided (3), Agree (4), Strongly Agree (5)

	Strongly disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly agree 5
Poor communication has been a challenge when it comes to IT-business strategies alignment					
The low level of understanding of IT among staff is a challenge faced during IT-business strategies alignment					
The existing unstable software has been a challenge when it comes to IT-business strategies alignment					
Lack of customized IT departments has forced the firm to outsource some of the core IT capabilities					
The unlimited mutual support is a challenge during IT-business strategies alignment					
The limited financial resources has challenged IT-business strategies alignment					
Time constraint has been a challenge when it comes to IT-business strategies alignment					

SECTION E: ORGANIZATIONAL PERFORMANCE AMONG FINTECH FIRMS IN NAIROBI CITY COUNTY, KENYA

13. This refers to the firm. Kindly provide relevant responses based on the scale of 1-5 by way of ticking.

Strongly disagree (1), Disagree (2), Undecided (3), Agree (4), Strongly Agree (5)

	Strongly disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly agree 5
The firm provides products that meet customer expectations					
The firm employees are effective					
The firm employees are efficient					
The firm offers quality services to customers					
The firm profit margin has increased					
The employee productivity in the firm has increased					
The firm has minimized the costs					

THANK YOU