

**INFORMATION TECHNOLOGY BUSINESS VALUE ALIGNMENT AND
PRODUCTIVITY AT BARCLAYS BANK OF KENYA**

BY

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DECLARATION

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

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

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DEDICATION

To Almighty God, who has been my strength my guide and divine inspiration throughout this journey.

To my Mother, Alice Nanjala Watakah and my father Joseph Simiyu Watakah, who taught me at a tender age, the virtue of hard work and shaped me to who I am today. They saw my strengths and capabilities and made me understand that I can do anything that I purpose to achieve in life through determination.

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ABSTRACT

It Business value alignment and productivity is the relationship of Information technology and productivity and how it impacts the organization when the two are put together to enhance the value of the business. Several attempts have been made to define IT business value alignment and productivity. Some literature suggests that organizations need to align IT with the business strategies in order to be competitive in the market and subsequently achieve great performance. The literature suggests that firms need to achieve strategic business and IT alignment to be competitive. IT Business value alignment impact business performance and IT effectiveness. The objectives of the research were to determine the extent of IT business value alignment at Barclays Bank; to investigate the relationship between IT business value alignment and productivity in the same bank and eventually to establish the challenges of IT business value alignment. A case study design was adopted for the research with the target population being the staff at Barclays Bank Kenya where the sample size was obtained from the collection and recoveries unit of the bank. Quantitative analysis was the method used for data analysis since the tool used to collect the data was questionnaires. It was found that IT business value alignment does affect productivity in the organization and that IT when aligned to the business strategy has a great positive impact on the organization. The research was able to conclude that IT is an important tool that increases productivity and consequently increases performance. From the research various recommendations emerged that: to leadership team ought to improve their awareness on IT related issues in the organization; the IT team increase their involvement in the daily activities of the individual teams they service; the users of the system undergo intense trainings on system they use and above all individuals in the organization to be aware of the the company's mission, vision, plans and objectives to ensure that they work towards achieving them for the success of the organization.

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Chapter 1 : INTRODUCTION

1.1. Background of study

The 21st century has brought about an all-embracing convergence of computing, communications, information and knowledge, (Gowrinathan, 2012). The growth of high speed networks, coupled with the falling cost of computing power, is making possible applications which had not been conceptualized in the past. Voice, data, images, and video are now transferred around the world in micro-seconds. This explosion of technology is changing the banking industry from paper and branch banks to digitized and networked banking services. It has already changed the internal accounting and management systems of banks. It is now fundamentally changing the delivery systems banks use to interact with their customers. All over the world, banks are still struggling to find a technological solution to meet the challenges of a rapidly-changing environment. It is clear that technology is changing the banking industry forever. Banks with the ability to invest and integrate information technology are now dominant in the highly competitive global market. Bankers are convinced that investing in Information Technology is critical. Its potential and consequences on the banking industry present and future is enormous. IT is a crucial tool for enterprises to achieve competitive advantage and come up with organizational innovation. Therefore, IT has emerged as a key issue in the management research (Duhan, 2007; Tseng, 2008).

According to recent research by Deutsche Bank (2012), financial services firms will spend between \$270-billion and \$460-billion on IT in 2013 globally. Computers are getting more sophisticated. The changes that new technologies have brought to banking are enormous in their impact on officers, employees, and customers of banks. Advances in technology are allowing for delivery of banking products and services more conveniently and effectively than ever before - thus creating new bases of competition (Viaene et al, 2009). Rapid access to critical information and the ability to act quickly and effectively will distinguish the successful banks of the future. The bank gains a vital competitive advantage by having a direct marketing and an accountable customer service environment and new, streamlined business processes (Chen, 2010; Viaene et al, 2009). Consistent management and decision support systems provide the bank that competitive edge to forge ahead in the banking marketplace.

Information Technology at the bank can be divided into three areas:

Customer Area which includes: Self-inquiry facility, Remote banking, Anytime (24/7) banking- Anywhere banking, Tele-banking, Electronic Banking. Employees Area which includes: Accurate computing of cumbersome and time-consuming jobs such as balancing and interest calculations on due dates, automatic printing of covering schedules, deposit receipts, pass book / pass sheet, freeing the staff from performing these time-consuming jobs, and enabling them to give more attention to the needs of the customer. Signature retrieval facility which is used in assisting in verification of transactions, sitting at their own terminal, and finally avoidance of duplication of entries due to existence of single-point data entry. Bank as a whole this includes: availability of a wide range of inquiry facilities, assisting the bank in business development and follow-up, immediate replies to customer queries without reference to ledger-keeper as terminals are provided to Managers and Chief Managers, automatic and prompt carrying out of standing instructions on due date and generation of reports, generation of various MIS reports and periodical returns on due dates, fast and up-to-date information transfer enabling speedier decisions, by interconnecting computerized branches and controlling offices.

1.1.1 Business Value

Weinberg (2011) states that value is quality of something to someone. Goldsmith (2004) says that it all begins with the requirement which states the value required to be delivered to someone, this means that if we deliver value we will have satisfied a need or expectation of someone at a price they were willing to pay. Value is not created by activities in isolation but by activities working together (Joyce and Woods) Business Value is an informal term that includes all forms of value that determine the health and well-being of the firm in the long-run. Note that it goes beyond purely economic value (Sward, 2006). He further expounds that business value expands concept of value of the firm beyond economic value (also known as economic profit, economic value added, and shareholder value) to include other forms of value such as employee value, customer value, supplier value, channel partner value, alliance partner value, managerial value, and societal value.

Many of these forms of value are not directly measured in monetary terms. An increase or decline in Business Value that an action produces is traditionally measured in terms of Customer

Satisfaction, Revenue Growth, Profitability, Market Share, Wallet Share, Cross-Sell Ratio, Marketing Campaign Response Rates, or Relationship Duration (Kumar & Reinartz, 2005). The main strategy that businesses are adopting is the use of information technology as a tool to enhance the value of the businesses. IT strategy is concerned with outlining the vision on how the organization's demand for information and systems will be supported by technology. It addresses the provision of IT capabilities and resources (i.e. hardware, software and telecommunication) and services like IT operation, systems development and user supports (Ward and Peppard, 2002).

1.1.2 Business Value of Information Technology

Various factors affect the business value impact of IT. The most important factor is the alignment between IT and business processes, organization structure, and strategy (Henderson and Venkatraman 1993). At the highest levels, this alignment is achieved through proper integration of enterprise architecture, business architecture, process design, organization design, and performance metrics. At the level of computing and communications infrastructure, the following performance factors constrain and partially determine IT capabilities: Usability, Functionality, Availability, Reliability, recoverability, Performance (throughput, response time, predictability, capacity, etc.), Security, and Agility, Reich and Benbasat (1996) define alignment as the degree to which the mission, objectives, and plans contained in the business strategy are shared and supported by the IT strategy. Henderson and Venkatraman (1993) state that alignment is the degree of fit and integration among business strategy, IT strategy, business infrastructure, and IT infrastructure. Levy (2000), using a resource-based perspective, cautions that aligned IT – in and of itself is not strategic. In order for IT to be strategic, it must be valuable, unique, and difficult for competitors to imitate, thereby bringing value to the business.

It is important to consider the overall value chain in technology development projects as the challenge for the value creation is increasing with the growing competitiveness between organizations that has become evident (Bird, 2010). The concept of value creation through technology is heavily dependent upon the alignment of technology and business strategies (Grover and Segars, 2005). While the value creation for an organization is a network of

relationships between internal and external environments, technology plays an important role in improving the overall value chain of an organization (Nejati and Nejati, 2008; Nejati et al., 2009; Nejati, 2010). Alignment leads to more focused and strategic use of IT which, in turn, leads to increased productivity leading to increased performance and therefore the addition of value to the organization (Chan et al., 2006). Challenges behind the IT-business alignment lies solely on the role of the managers including the inability to maintain the internal and external IT-business communication, failure in practicing the changes, lack of support from senior managers, and on the other side resistance to change in organizations (Wiess and Anderson, 2004). In addition, the shortage of research on relating this phenomenon with tangible organization results like organization performance especially with a comprehensive view is another reason for lack of IT-business alignment.

1.1.3 Barclays Bank of Kenya

Barclays Bank PLC is a major global financial services provider engaged in retail banking, credit cards, corporate, investment banking and wealth management with an extensive international presence in Europe, America, Africa and Asia with over 300 years of history and employs over 147,000 people. Barclays bank moves, lends, invests and protects money for over 48 million customers and clients worldwide (Barclays PLC Investor Seminar 2011, June 15). As a result the bank is always looking for ways to better their services in the best way possible of course at the least price possible.

Barclays Africa is the leading bank in Africa with business in ten countries in Africa namely; Botswana, Egypt, Ghana, Kenya, Nigeria, South Africa, Tanzania, Uganda, Zambia, Zimbabwe. Barclays has operated in Kenya for over 90 years. Financial strength coupled with extensive local and international resources have positioned Barclays Bank of Kenya as a foremost provider of financial services. Barclays Bank of Kenya has established an extensive network of 117 outlets with over 230 ATMs spread across the country. The bank's financial performance over the years has built confidence among the bank's shareholders, with a reputation as one of the leading blue chip companies on Nairobi Stock Exchange (www.investorrelations.barclays.co.ke).

Barclays Bank of Kenya has continued to maintain its market leadership position in a sector that has become increasingly competitive over the years. It was the first bank to introduce Islamic

Banking to Kenya and first to introduce Corporate Bond by any commercial bank. Over the years, Barclays Bank of Kenya has contributed to the development of the banking industry, financial services sector, as well as the economy overall. Industry recognition they have received for leadership include; Best Bank in Kenya – Global Finance (2008, 2009 & 2010); Company of the Year Award for Human Resource Management Practices - Kenya Institute of Management (2008); Best Retail Bank – 2009 Banking Awards; and Company that best complies with the International Financial Reporting Standards-FiRe Awards (2009) (www.barclays.com).

Barclays has gone through unprecedented growth over the past few years, and accordingly, technology has had to keep pace. Historically, Barclays has had more of a support service culture and that has served the business well. However it is now at a point where the complexity of the business, on a product, time zone and organizational level, warrants a different model. Barclays is now looking to make IT a partner with the business and run IT as a business to sustain and facilitate growth. This calls for aligning the IT strategy to the business strategy so as to synchronize the end result thus fulfilling the goals of the organization. Various initiatives have come up to support the business-IT alignment strategy such as internet banking, mobile banking just to mention a few. With these the bank aims to be able to realize its goals with IT being the center of it all. Various systems have been introduced within the bank to assist in measuring the productivity of the staff. A good example is a system introduced in the credit department, which measures the number of calls a collector makes within a day, and of what value these calls have translated to. This is in terms of which customers have made payments or bought loans etc. consequently reports are generated every single day outlining the productivity of the employees in the various teams they represent.

1.2 Statement of the Problem

Organizations large and small face the same dilemma: scarce resources. Choosing and deploying the right solution to maximize an organization's performance, to satisfy customers, and to make and maintain a profit has never been more critical. Information technology, in particular, often loses its significance as a major contributing success factor in an organization's strategic objectives because it is predominantly considered a function within an organization that is not integral to achieving business objectives (Bush et al., 2009). Consequently, budgets are squeezed

year after year as IT organizations inevitably drift towards the cost center perception, and not toward being the competitive differentiator that IT has the potential to be. IT managers are left with the hard task of trying to justify the value IT brings to the organization on the event the company decides to invest in it (Luftman et al., 2006). The relationship between information technology (IT) and productivity is widely discussed but little understood (Laudon, K. and Laudon, J. 2006). They further state that IT assists in transforming information into a usable form for coordinating the workflow within the organization, and helps in decision making and solving other problems.

Delivered computing-power in the US economy has increased by more than two orders of magnitude since 1970, yet productivity, especially in the service sector, seems to have stagnated. One of the difficulties in managing information work productivity is the challenge in measuring the effects of implementing IT. In industrial work, the effect of technology was to increase the output and decrease the inputs needed for processing. IT may have more intangible effects on the output than merely increasing the quantity produced (Fichman, 2004). A close case-based examination of the literature and industrial practice reveals that besides improving output, technology also can help improve quality and consistency of information work and help the organization create better products/services through improved market intelligence and customer insight.

Despite the enormous promise of information technology (IT) to effect the biggest technological revolution men have known (Snow, 1966), disillusionment and frustration with the technology are evident in studies such as that of Zachary(1991) where he came up with a summary that computer data overload limits productivity. In the 1990s, many writers, economists and specialists in the study of information systems established that although the number of computers had more than tripled between the 1970s and the 1990s, productivity seems to have stagnated. Solow (1987) aptly characterized the results that, computers are seen everywhere except in the productivity statistics. Indeed, the enormous investments made by businesses in IT did not appear to have had a positive effect on their productivity, and this has led to disillusionment and

frustration with the technology. Carr (2004) argues that it is impossible to draw any conclusions about the competitiveness and profitability of organizations following their investments in IT.

For two decades, IT alignment has consistently appeared as a top concern for IT practitioners and company executives (Luftman et al., 2005). The business and IT performance implications of alignment have been demonstrated empirically and through case studies during the last decade (e.g. Chan et al., 1997; de Leede et al., 2002; Irani, 2002; Kearns and Lederer, 2003). Simply put, the findings support the hypothesis that those organizations that successfully align their business strategy with their IT strategy will outperform those that do not. On the contrary, Palmer and Markus (2000) did not find a relationship between alignment and performance when examining the use of Quick Response technology in the retailing sector. It has been argued that these negative or unclear results are due to a lack of control variables in the analyses. Chan et al. (2006) found that factors such as industry, organizational size, and type of strategy all had an impact on the performance implications of alignment. Byrd et al. (2006) found that strategic alignment had a direct impact on performance as a moderator between IT investment and business performance. The real value in alignment was in leveraging the firm's IT investment. However, with the given arguments, this study attempts to answer the following questions: What value does IT-Business value alignment bring to the organization? Does IT-Business value alignment increase productivity in the organization?

1.3 Research Objectives

Therefore this study was:

- a) To determine the extent of IT business value alignment at Barclays Bank.
- b) To investigate the relationship between IT business value alignment and productivity at Barclays bank of Kenya.
- c) To establish challenges IT business value alignment at Barclays bank.

1.4 Value of The Study

This study aimed at assisting managers and decision makers in their decision making activities in terms of whether to invest in information technology or not in the banking industry consequently other related industries could borrow one or two ideas.

It further aimed at assisting policy makers in their daily tasks of trying to come up with policies related to the running of the organization and processes and procedures to be involved.

Finally it will add to the current scope of knowledge and theory in the IT productivity paradox and IT alignment concepts, this will enable scholars use the findings as a basis for further research.

Chapter 2 : LITERATURE REVIEW

2.1. Introduction

This chapter provides reviews and summary of empirical studies and literature on Information Technology implementation and the business value. It starts by reviewing the literature on the productivity paradox and how it argues against IT and productivity. This paradox tries to prove that IT does not add value whatsoever to the business. The chapter also reviews the business-IT strategic alignment which explains in so many words, that IT is indeed valuable to an organization if well aligned to the business. It goes further to highlight a few challenges in implementing the alignment but also the outcomes of the alignment to an organization. All these are just to bring out that on one hand IT is seen as a useless tool to the organization, yet on the other hand it is an important tool to the organization and will contribute to its success.

2.2 Productivity Paradox Theory

Different authors have explained the productivity paradox in different ways. However, in his original article, Brynjolfsson (1993) identified four possible explanations of the productivity paradox:

Measurement errors are linked to the fact that inputs and outputs may not be properly measured. Mismeasurements are at the core of the productivity paradox, and measurement problems seem particularly acute in the service sector and in the knowledge industry. It has been proposed that investments in IT should be measured specifically in the context in which the investment that has been made. It is seen that the traditional measures of the relationship between the input and the outputs do not account for the non-traditional sources of value. *Time lag* refers to the fact that the actual impacts of IT might not have an immediate effect. In other words, a period of learning, adjustments, and reorganization may be necessary in order to reap the full benefits of IT investments. IT will have an impact on productivity, but its impacts could be delayed, hence rendering it difficult to identify or assess them.

Redistribution of profit means that there are effects linked to the introduction and use of IT, but these are sometimes positive and sometimes negative, with an overall sum effect of zero. For example, IT may be beneficial to some individual firms, but unproductive from the standpoint of

the economy as a whole. For instance, IT may be used disproportionately for market research and marketing, activities which can be very beneficial to the firm while adding nothing to total output (Baily & Chakrabarti, 1988). *Mismanagement of IT* means that the absence of effects might be linked to the fact that the IT was not properly managed. Investments in IT might be made without a sound rationale, because decision-makers are pursuing personal objectives or using outdated criteria in their decision making, or not properly adjusting work organization and incentives.

More than a decade ago, one of the earliest surveys concluded that we still had much to learn about measuring the effects of computers on organizations (Attewell and Rule, 198) Wilson (1995) reports that our understanding of how information technology affects productivity either at the level of the firm or for the economy as a whole is extremely limited. Over time more studies are being conducted to actually show the relationship between IT and productivity. There are those studies that will show negative correlation between total factor productivity and high share of high-tech capital formation during 1968-1986 period (Berndt and Morrison, 1995), other studies suggests that computer capital contributes to growth more than ordinary capital (Jorgenson and Stiroh, 1995). Brynjolfsson and Hitt (1996) report positive effects of IT based on firm-level evidence. At the end of the day decision makers will be in a position to make educated decisions when it comes to whether or not their organizations should actually invest in IT or not, since they will have broadened their knowledge on the 2 sides of IT and productivity. Bresnahan et al. (2002) empirically analyze how combining ICT and organizational design positively affects firm productivity. Lichtenberg (1995) and Brynjolfsson and Hitt (1996; 2003) find that the gross marginal profit associated with ICT investment outweighs its marginal cost.

2.3 Business Value And Information Technology Strategic Alignment

Sauer and Yetton (1997) argue that its basic principle is that IT should be managed in a way that mirrors management of the business.. Avison et al. (2004) state that alignment is the degree to which the IT mission, objective and plans support and are supported by the business mission, objectives and plans. For two decades, IT alignment has consistently appeared as a top concern for IT practitioners and company executives (Luftman et al., 2005). McKeen and Smith (2003) argue that strategic alignment of IT exists when an organization's goals and activities and the

information systems that support them remain in harmony. Good alignment means that the organization is applying appropriate IT in given situations in a timely way, and that these actions stay congruent with the business strategy, goals, and needs (Luftman and Brier, 1999). This means that strategic alignment is an intense hands-on business redesign process, in which strategic goals are aligned to the business model and processes, and the company culture with key business purpose and core values.

Good strategic alignment has an amazing effect on organizational performance (Chen, 2010; Viaene et al, 2009). People perform better when they fully understand and accept the purpose and goals of their organization, and they develop a better sense of ownership when they understand what difference they make in achieving those goals. On the other hand, lack of strategic alignment is one of the major causes for organizations to fail (Sabherwal and Chan 2001). Many organizations over time lose track of their key business purpose.

IT Strategic Alignment is the degree to which the IT mission, objectives, and plans support and are supported by the business mission, objective, and plans (Reich and Benbasat, 2000). Strategic alignment seems to grow in importance as business organizations attempt to link business and IT due to dynamic business strategies and continuously evolving technologies at a rapid pace (Luftman, 2005). Business-IT strategic alignment is one of the most popular modern management concepts in business and IT management particularly in academia and industry. It refers to the link between business and IT strategies. Ensuring that IT delivers a value to the business is an important issue to the CEO and IT managers in many business firms and industrial organizations today.

Alignment leads to more focused and strategic use of IT which, in turn, leads to increased productivity thus great performance (Chan et al., 2006). Depending on the model of alignment, one can argue that it is necessary for IT to challenge the business, not simply implement its vision (Chan and Huff, 1993). Disagreement, friction, and conflict can be more desirable than reactive, smooth IT operations in order to achieve high business performance. This view suggests that researchers who believe that IT should simply support what the business is doing may be wasting their and others' time. However, Kearns and Lederer (2000) point out that while

effective alignment of the IT plan with the business plan can provide competitive advantage, the opposite – aligning the business plan with the IT strategy – can result in potential losses. Levy (2000), using a resource-based perspective, cautions that IT – even aligned IT – in and of itself is not strategic and that in order for IT to be strategic, it must be valuable, unique, and difficult for competitors to imitate.

2.4 Challenges in Attaining Alignment

Businesses face plenty of challenges when trying to incorporate IT into the operations. Wiess and Anderson (2004) have come up with a few challenges as stated below:

Challenges related to knowledge refer to the central problem that IT executives are not always privy to corporate strategy, and that organizational leaders are not always knowledgeable about IT. Also, managers are not always knowledgeable about key business and industry drivers. Corporate strategy is unknown: A recurring issue seen in previous alignment research is that often corporate strategy is unknown (Reich and Benbasat, 2000) or, if known, is unclear and/or difficult to adapt (Baets, 1992). This poses a significant challenge because most models of alignment presuppose an existing business strategy to which an IT organization can align itself. Formal business strategies are often too ambiguous for business managers to understand (Campbell, 2005). Managers face ambiguity surrounding the differences between espoused strategies, strategies in use, and managerial actions, many of which may be in conflict with one another. This issue of comprehension can be both internal and external to the IT organization. Internal comprehension is affected by mental models and world views, relationships, shared domains of knowledge, and shared systems of meaning. External comprehension is influenced by education and training, the organizational structure and visibility of the IT staff in the structure, and the IT environment. Failures or weaknesses in any of these areas may result in poor alignment.

Lack of awareness or belief in the importance of alignment: Although there is empirical support for the notion that alignment provides organizational value, many business managers are unaware of the importance of IT alignment and have little belief that IT can solve important business problems (Baets, 1996). For instance, in Baets' study of European banks, it was found that the influence of mindsets on IT alignment awareness was significant. Although there was a

trend in the use of IT from a support function to a competitive capability, and IT issues were perceived to have a great influence on the banking industry, there was no strong and clear belief that IT could solve specific banking problems. Those managers who could see specific ways to solve banking problems via IT had more positive attitudes towards IT strategy and planning. Similarly, a study by Vitale and colleagues revealed a strong relationship between IT-knowledgeable management and system identification processes that were viewed as satisfactory (Vitale et al., 1986). Henderson and Venkatraman (1993) found that managers were more comfortable with their ability to comprehend business positioning choices (i.e., where products are sold) rather than IT positioning choices (i.e., critical technology to support business strategies). This was attributed to the fact that strategy has typically been viewed as something applied to the output market, and that IT has typically been viewed as an internal response (or an input) to business strategy as opposed to something that leverages business strategy.

Lack of industry and business knowledge: Baets (1996) found IT alignment was hindered by a lack of knowledge about the banking industry (not just skills and knowledge about IT) among banking managers. In particular, it was found that IT alignment was negatively influenced by the following industry factors: when awareness of the banking industry issues was low and when the interaction of different aspects within the corporate strategy was not well known to managers. Therefore, before managers could use IT solutions to help solve their banking problems, a deeper knowledge of the banking industry itself was required. Campbell et al. (2005) suggest that when managers are confronted with a business challenge, they make decisions based on their locus of comprehension (understanding) and their locus of control (authority to make decisions). These constraints impact alignment. From this perspective, strategic alignment can be seen as an array of bounded choices made in order to resolve strategic ambiguity (Campbell, 2005). Another contributing factor in the attainment of alignment is the status of IT within the business unit or organization. In a study of cultural assumptions about IT, Kaarst-Brown and Robey (1999) found five separate archetypes. In several of these archetypes, notably the 'fearful' and the 'controlled', managers felt that IT was not a benign force within the organization. Therefore, although managers cognitively knew what was needed to achieve IT alignment, practically it was not feasible.

The business environment is constantly changing, and thus there may be no such thing as a 'state' of alignment. Strategic choices made by one organization frequently result in imitation by other organizations. Thus, strategic alignment is a process of change over time and continuous adaptation (Henderson and Venkatraman, 1993). Van Der Zee and De Jong (1999) cite a main problem with alignment as the time lag between business and IT planning processes. That is, given that the business environment and technology change so quickly, once an IT plan is enacted, there is a high probability that the plan and the technology are already obsolete.

2.5 Outcomes of IT Business value alignment and productivity(performance)

Henderson and Venkatraman (1992) argue that strategic alignment can influence organizational transformation in a descriptive sense (i.e., by illustrating the value of emerging IT), prescriptive sense (i.e., by grounding cases in a theoretical framework and suggesting possible courses of action), and in a dynamic sense (i.e., by conceptualizing major relationships and interactions to be addressed over time). Technology influences the power and reach of organizations. High performing organizations often have developed capabilities to harness and align IT (Scott Morton, 1991). IT alignment is a management concern primarily because of its potential impact on firm performance. .

Strategic IT alignment leads to increased profits for an organization, above and beyond what would be expected to be produced using only industry and strategy variables (Cragg et al., 2002). Sabherwal and Chan (2001) found that alignment is significantly correlated with perceived business performance, although this link is complex and is dependent on the business strategy. For Defender strategies, they uncovered no significant relationship between alignment and performance, whereas the alignment–performance relationship was observed for Prospectors and Analyzers. The high dependency on IT has increased to the level where an IT responsiveness can create a competitive disadvantage (Smaczny, 2001). Failure to leverage IT may seriously decrease a firm performance and viability (Avison et al., 2004). Strategic alignment can improve business performance and productivity (Sabherwal and Chan, 2001), maximize the return on IT investment, achieve the competitive advantage, and provide direction and flexibility to react to new opportunities (Avison et al., 2004). IT alignment can be used to raise entry market barrier,

increase customer switching costs, change the basis of the competition and the balance of power in buyer/supplier relationships (Kearns and Lederer, 2003). Yetton (1994) concluded that if the separation of business and IT was substantial, company performance suffered. This separation contributed to organization's failing to learn how to manage IT investments and extract value from them. Similarly, Sauer and Burn (1997) argued that when business decisions were made without consideration of IT, there was a risk of pathological or damaging outcomes.

However, not all evidence concludes that alignment has direct or positive performance implications. Tallon (2003) found that while 70% of companies reduced costs or improved sales and customer service after increasing strategic alignment, 30% saw no improvement or even a decline. This was attributed to the failure of alignment to be achieved with some degree of flexibility. That is, companies locked themselves into an alignment plan (via investing in various technologies) that hindered their ability to react to change. Similarly, Palmer and Markus (2000) did not find a relationship between alignment and performance when examining the use of Quick Response technology in the retailing sector. It has been argued that these negative or unclear results are due to a lack of control variables in the analyses. Chan et al. (2006) found that factors such as industry, organizational size, and type of strategy all had an impact on the performance implications of alignment. Byrd et al. (2006) found that strategic alignment had a direct impact on performance as a moderator between IT investment and business performance. The real value in alignment was in leveraging the firm's IT investment.

Strategically well-aligned IT can change industries. Well-known examples include American Airlines' SABRE reservation system, the Bank of America's ERMA automatic cheque processing system, and American Hospital Supply/Baxter. By increasing the scope and impact of IT in these organizations, the industry structure was transformed causing significant market shifts (McKenney et al., 1995). The impacts of alignment go beyond firm boundaries.

Chapter 3 : RESEARCH METHODOLOGY

3.1. Introduction

This chapter expounds on the research methodology and procedures that were followed in the execution of the research work. It entails the research design, means of data collection and the data analysis method that were used.

3.2. Research Design

The research was conducted using Case study. A case study is a research approach, situated between concrete data taking techniques and methodological paradigms (Lamnek, 2005). Mugenda and Mugenda (2003) further defines it as an in-depth investigation of an individual, institution or phenomenon. According to Oso (2005) a case where the number of organizations that can be investigated are few, a small sample is available and an in-depth analysis is necessary, a case study is the most appropriate. The primary purpose of the study was to determine the relationship between Business-IT alignment and productivity at Barclays Bank of Kenya.

The case study design has been successfully used by Mumbi (2005); Njagu (2008); Gakenia (2008) among others. It was deemed the best design to fulfill the objectives of the study and because it enabled the researcher have an in-depth understanding of the relationship between information technology business value alignment and productivity.

3.3. Target Population

A population is any set of persons or objects that possesses at least one common characteristic (Busha & Harter, 1980). The target population included the staff of Barclays Bank Kenya, Collections and Recoveries department.

3.4. Sample Size and Sampling Procedures

A sample is a smaller group or sub-group obtained from the accessible population (Mugenda and Mugenda, 1999). This subgroup is carefully selected to be representative of the whole population with the relevant characteristics. In this study, stratified random sampling was used for sampling the population. Stratified random sampling is a technique which attempts to restrict the possible

samples to those which are less extreme by ensuring that all parts of the population are represented in the sample in order to increase the efficiency (that is to decrease the error in the estimation). The function was divided into 5 stratas where samples of 6 respondents were randomly selected to fill in the questionnaires. The questionnaires were physically presented to the respondents and thereafter collected in the same manner.

3.5. Data Collection

In order to meet the objectives of this data, primary data was collected. The primary data was collected using questionnaires. Questionnaire is a research tool that gathers data over a large sample (Kombo et al. 2006). Kendall (2008) also affirms that questionnaires do provide evidence of patterns amongst large populations. The important characteristic of the use of questionnaire is that it allows the researcher to collect information from a large sample with diverse background; the findings remain confidential, save time and since they are presented in a paper format, there is no opportunity for bias. The questionnaire consisted of close ended questions covering the issues on the information technology implementation and the business values it brought in terms of productivity when aligned to the business.

The data was collected by distributing questionnaires to staff of the bank who interacts with the information systems and technology. The employees interviewed were based in the collections and recoveries team.

3.6. Data Analysis

Quantitative analysis was used to analyze the data collected. According to Zikmund (2003), data analysis is the application of reasoning to understand and interpret the data that has been collected. Quantitative research attempts precise measurement of something; it determines facts and figures (Cooper & Schindler, 2006). This type of analysis is used to determine the actuality of events that have occurred or do occur. Quantitative analysis is used to figure out exactly what happened, or how often things happened. This type of research will present you with facts and details (Schindler, 2006).

Chapter 4 : DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents the analysis, results and findings of the research following feedback received from the questionnaires answered by staff members at Barclays Bank of Kenya. The data analysis was designed with the intention of answering the research question of this study. The analysis of quantitative discussion outcomes was associated with the questions as per the questionnaire (Appendix II).

4.2 General Information

The respondents of the research were based in the collections and recoveries department of Barclay Bank Kenya. In total the respondents were randomly selected from 5 different teams. Different variable were used to collect the data from the respondents of which will contribute to the conclusion of the research.

4.2.1 Gender

Out of a sample of 30, 56.7% of the respondents were male as the rest of the 43.3% were from the female gender. This variable was used to ensure that the results of the research were not biased as regards one gender being the dominant respondent sample.

Table 1: Gender

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Male	17	56.7	56.7	56.7
Valid Female	13	43.3	43.3	100.0
Total	30	100.0	100.0	

4.2.2 Age

86.7% of the respondents were between the ages 25-35 while 13.3% are between the ages 36-45. This is to show that the generation using IT is fairly a young group which is easily conversant with technology and does not suffer from the generation gap. At the same time the research suffered from this outcome as the respondents answered the questionnaire based on assumptions as to 'what should be' and not 'what is'.

Table 2: Respondents Age

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid 25-35	26	86.7	86.7	86.7
36-45	4	13.3	13.3	100.0
Total	30	100.0	100.0	

4.2.3 Computer Usage

100% of the respondents use computers within the office environment. This means that the feedback received from the respondents was purely from sheer experience and no guess work was involved. At the same time this could mean that the respondent were well aware of what the computers ought to be doing thus having answers that were more of preprogramed rather than what the situation is on the ground therefore intentionally changing the course of the research.

Table 3: Computer Usage

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid Yes	30	100.0	100.0	100.0

4.2.4 Training

For any system to be used for productivity, training has to be done to the users of the tool. As for Barclays, it was found that 93.3 % (table 4) of the respondents underwent training in order to use the systems that were in place. This variable will also be used to highlight the challenges the organization faces in terms of the use of the tools provided by the organization to be used to enhance productivity.

Table 4: Training

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
No	2	6.7	6.7	6.7
Valid Yes	28	93.3	93.3	100.0
Total	30	100.0	100.0	

4.2.5 Culture

From the analysis (table 5), 16.7% felt the IT department does not share a common culture whereas the rest 83.3% felt that the IT department does share the organization's culture. This was a surprising factor as the expectations were that IT staff do not share with the rest of the organization's culture, yet the feeling on the ground was in fact contrary to the expectation.

Table 5: Culture

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
not share	5	16.7	16.7	16.7
Valid share	25	83.3	83.3	100.0
Total	30	100.0	100.0	

4.3 Interpretation of Alignment

This section had its surprises as some of the outcomes were contrary to the researcher's expectations. It was found that IT implementation success was relatively good as no respondent actually scored a poor rating for it. This is a factor that normally does not sit well with most organizations as there are challenges that stem from resistance from employees to poor infrastructure. At the same time there was a 13.3% rating of poor on the timely manner in which the IT tool is implemented in the organization, this shows some form of contradiction as to the successful implementation of IT. At the same time it was found that 20.0% of the respondent's rated poorly their involvement during the rolling out of a new system. Another surprising outcome of the research was the effective changeover of the systems in the organization. 43.3% of the respondents rated this activity as 'very good', a score that can be found in very few organizations. The research also found that quite a good number of colleagues are aware of their organization's plans, objectives and mission and vision therefore putting Barclay at a better place when it comes to implementation of the IT strategy.

Table 6: Alignment

	Very Poor		Poor		Good		Very Good		Excellent	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Interaction	3	10.0%	1	3.3%	11	36.7%	9	30.0%	6	20.0%
Involvement	3	10.3%	7	24.1%	8	27.6%	7	24.1%	4	13.8%
Implementation	0	0.0%	0	0.0%	13	44.8%	13	44.8%	3	10.3%
Changeover	0	0.0%	3	10.0%	6	20.0%	13	43.3%	8	26.7%
New System	2	6.7%	6	20.0%	7	23.3%	9	30.0%	6	20.0%
Business Plans	0	0.0%	1	3.3%	11	36.7%	9	30.0%	9	30.0%
Business Objective	0	0.0%	0	0.0%	11	37.9%	7	24.1%	11	37.9%
Mission Vision	0	0.0%	2	6.7%	7	23.3%	12	40.0%	9	30.0%
Time Range	0	0.0%	4	13.3%	12	40.0%	7	23.3%	7	23.3%
Target	0	0.0%	1	3.3%	10	33.3%	11	36.7%	8	26.7%

4.4 Challenges of IT Business Value alignment

The outcome of this section depicted an average rating of good. This meant that Barclays as an organization is actually doing good in managing the challenges that come with IT Business value alignment. Yet the variables that stand out is the fact that 16.7% thought that their team leaders' IT knowledge is poor at the same time a majority of 46.7% thought their knowledge to be good. This means lots of training needs to be done on the management side to actually create an environment where the leaders have an expounded IT knowledge. Another outcome that was surprising was the fact that all respondents rated their system knowledge from good and above, this shows that the basic training on the side of the junior staff was quite rigorous thus advanced training can be advised. The IT team will be tasked to improve their knowledge on the issues related to the organization as the respondents placed them at an average rating.

Table 7: Challenges

	Very Poor		Poor		Good		Very Good		Excellent	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
IT Knowledge	0	0.0%	5	16.7%	14	46.7%	8	26.7%	3	10.0%
System Knowledge	0	0.0%	0	0.0%	12	40.0%	13	43.3%	5	16.7%
Managers	0	0.0%	1	3.3%	10	33.3%	12	40.0%	7	23.3%
Staff	0	0.0%	1	3.3%	10	33.3%	14	46.7%	5	16.7%
Adaptation	2	6.7%	5	16.7%	12	40.0%	8	26.7%	3	10.0%
Industry Knowledge	0	0.0%	0	0.0%	9	30.0%	13	43.3%	8	26.7%
IT Business Communication	0	0.0%	3	10.0%	10	33.3%	13	43.3%	4	13.3%
IT Function Interaction	0	0.0%	4	13.3%	10	33.3%	12	40.0%	4	13.3%
IT Understanding	1	3.3%	7	23.3%	7	23.3%	7	23.3%	8	26.7%
Trust	0	0.0%	3	10.0%	10	33.3%	7	23.3%	10	33.3%

4.5 Productivity and Performance

From the data gathered in the research, 2 models were realised that were used to analyse and interpret the outcomes of the research. Below is a summary of the 2 models that gave results that were surprisingly contrary to the expectations of the researcher.

4.5.1 Model 1: Termination (Elimination of IT)

The variables in the table below (table 8) affect the productivity of the organization. Whereas the productivity is dependent on the use of IT in organization, this means when IT is eliminated then productivity is affected. With the above relationship it can be concluded that elimination of IT is also dependent on the variables in table 8 that is the reason as to why it was used as a dependent variable.

Table 8: Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Respondents' Age, Gender, Alignment, training, Culture ^b	.	Enter

a. Dependent Variable: Termination

b. Tolerance = .000 limits reached.

In this model, the variables used were respondent's age, gender, alignment, training and culture. These would act as the independent variables. The dependent variable was termination.

From the table below it shows that 61.2% of the variations in Elimination of IT can be explained and affected by all the independent variable i.e. were respondent's age, gender, alignment, training and culture, put together.

Table 9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.782 ^a	.612	.531	.125

Predictors: (Constant), Respondents' Age, Gender, Alignment, training, Culture

This means that all the above mentioned factors when put together indeed affect the behaviour of termination. Yet when done individually they have no effect on the dependent variable termination as shown in table 10.

Table 10: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.472	.166		2.836	.009
	Alignment	-.021	.130	-.021	-.158	.875
	training	-.484	.115	-.672	-4.207	.000
	Culture	.053	.079	.110	.668	.510
	Gender	-.076	.047	-.210	-1.625	.117
	Respondents' Age	.173	.072	.328	2.393	.025

a. Dependent Variable: Termination

The above results indicate that only two variables have a significant effect on the elimination of IT usage, namely: age and training whereby an increase in the average age increases termination by 32.8% ($t=2.39$), while training of staff decreases elimination of IT by 67.2% ($t=4.2$).

4.5.2 Model 2: Alignment

Table 11: Alignment Variables

Model	Variables Entered	Variables Removed	Method
1	Termination, Targets, Gender, Culture, Respondents' Age, training ^b	.	Enter

a. Dependent Variable: Alignment

b. All requested variables entered.

In this model, the variables used were respondent's age, gender, alignment, training and culture. These would act as the independent variables. The dependent variable was Alignment

Table 12: Alignment Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	1.000 ^a	1.000	1.000	.000

a. Predictors: (Constant), Termination, Targets, Gender, Culture, Respondents' Age, training

	Frequency	Percent	Valid Percentage	Cumulative Percentage
No	0	0	0	0
Valid Yes	30	100.0	100.0	100.0
Total	30	100.0	100.0	

From the above table the research shows a perfect score which should not be the case. This was attributed to two theories namely: the respondents did not understand the question or they pre-empted the question and answered what they thought it to be as opposed to what was required.

Chapter 5 : SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary, conclusion and details of recommendations for the research in line with research objective and the research question. The section concludes by giving limitations of the study and suggestions for further research.

5.2 Summary of Findings

The research found out that the organization indeed has embraced the use of IT for its daily operations and ensures that the staff is well equipped for the use of this tool through training quite a good percentage of them. The research further highlights that the organization has gone as far as to create a culture which has been adopted throughout the organization including the IT team, this is contrary to previous research which has established that IT departments are usually on their own.

The research also found that the level of the interpretation of IT alignment in the organization was quite high, and the organization knows what it wants in terms if IT and the business value it gets from this tool. As a result Barclays has ensured that IT implementation is in line with the business objectives, mission, vision and goals of the team. The researcher also revealed that in order for successful alignment of IT in the organization, the IT department, the other staff and the management team have to be aware of the business' goals, objectives, mission and vision of the business.

The research found that Barclays bank surprisingly does not quite suffer from the challenges that come with trying to align the IT business value and productivity. This was seen through the high scores that the variables attained in the research which was a surprising factor as opposed to the expectations of the research. The research found that IT does contribute to the productivity in the organization. The respondents all agreed that without IT productivity would decrease consequently targets would not be met, thus performance would be affected immensely.

5.3 Conclusion

This research project has provided a comprehensive review of IT Business value alignment and productivity in attempt to answer the research question and the research objectives. The researcher established that organizations should adapt IT Business value alignment technique to improve their productivity consequently performance of the organization. This means that IT is key in the running of the organization and that it is a tool that will enable the organization be competitive in their respective markets

To obtain this objective vigorous training is expected for all members of the organization, at the same time a great knowledge of the mission, vision, goals and objectives of the organization is expected of staff. Without the involvement of the staff in implementation process, then success will not be witnessed. This research has shown that staff involvement, adaptation, communication and interaction with the IT department are key ingredients for the successful implementation of IT in the organization.

The researcher also established that in order for successful alignment to be realized, there has to be cooperation between all the departments in the organization and key to this link is the IT department. This means that the IT department has to be involved in the running of all the team on the organization and its presence should be felt in all the teams in the organization. If this does not happen then the organization is bound to fail in the implementation of IT.

The research finding established that management involvement and knowledge in IT is critical for the successful implementation and sustenance of IT business value alignment and productivity. The IT department has to ensure that its strategies must be in line with the goals of the organization. The research concluded that there is a strong relationship between IT business value alignment and productivity in the organization.

5.4 Recommendations

Managers and executives need to improve on their awareness of IT related issues and focus their strategies in line with those of the organization and the IT team to ensure that there is some form of alignment in the daily operations of the organization and increase the chances of successful implementation of IT new systems.

The IT team should increase their involvement in the individual teams' daily activity, by this they will be in a position to identify with the daily tasks and target so as to be in a position to streamline their goals with the particular team's goal.

The staff who will directly interact with the systems ought to be motivated through intense training on how to use the systems. This will boost their morale and motivate them to easily adapt to the new systems without much resistance. Managers and executives should genuinely realize the importance of skills development as a value-adding activity in strategy implementation by involving everyone in the organization. They need to also involve training professionals and all stakeholders at every stage of implementation to get their by-in to support the process to the end by working collaboratively.

Each and every staff in the organization be provided with copies of the organization's mission, vision statement and made aware of the plans, objectives and goals of the origination. They should also be taken through the strategies of the organization and their role in contributing to the success of the organization.

5.5 Limitations Of The Study

Owing to the nature of the working conditions in the organization, it was not possible to get 100% focus of the employees in terms of answering the questionnaires. This somehow compromised the results of the research as some respondents were doing lots of guess work.

As per the results of the research, a good percentage of the respondents fall under the age group of about 35. This contributed heavily towards the results of the research as the research lacked variety of answers that would have emanated different kind results altogether.

A majority of the respondents being technologically exposed answered the questionnaire based on what should have been rather than what was the actual on the ground. This affected the finding of the research and did not conceive the results that the research was trying to prove.

5.5.1. Suggestions for future research

Plan on the time the respondents will work on the questionnaires to allow them ample time to actually think and evaluate their responses.

Select the population very carefully to avoid results that are skewed towards a particular direction.

The researcher ought to be careful about the background of the respondents and to ensure that the target population is in line with expected results to avoid guess work and preemptions.

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APPENDIX 1: LETTER OF INTRODUCTION

Dear Sir/Madam,

RE: REQUEST FOR RESEARCH INFORMATION.

I am a student at the University of Nairobi pursuing a Master degree in Business Administration (MBA). I am undertaking a research project on strategic implementations and skills development at Barclays Bank of Kenya as part of the academic requirements for the award of the stated degree.

I would be grateful if you could spare a moment of your time and allow me to interview using the attached questionnaire, to help me gather the necessary information. The information you give shall be treated with utmost confidentiality and shall be used solely for this research problem. A copy of the same shall be availed to you on request.

Any additional information you might consider necessary for this study will be highly appreciated.

In case of any queries pertaining to this research project, do not hesitate to call me on Tel: 0720633755.

Thank you in advance.

Yours sincerely

Esther Nelima Watakah

APPENDIX 11: QUESTIONNAIRE

SECTION A

This section wants to highlight the basic knowledge on the background of Information Technology in the organization.

1. Are you female Male
2. Which age bracket do you fall under
25-35 36-45 above 45
3. Which department do you fall under?
4. Do you use computers in your daily job routines?
Yes No
5. Does the organization offer trainings and any other support as regards the use the computers and the systems it encompasses?
Yes No
6. Do you consider that IT an important tool for the organization?
Yes No
7. Do you have an IT representative seated in the department to assist in any system related issues that will be raised by thee members of the team?
Yes No
8. Do you find IT/Business staff share the same culture in your company or each has his one capsulated culture?
Yes No

SECTION B

These questions try to establish the extent of how Information Technology alignment is interpreted and brought out in the organization.

On a scale of 1-5; -Very Poor, 2-Poor, 3-Good, 4-Very Good, 5-Excellent

	1	2	3	4	5
1. On a weekly basis, how would you rate frequency in which you relate with the IT department of the organization?					
2. How is the frequency in which the IT department is involved in the formulation of the teams' strategy?					
3. To what extent do you consider IT implementation successful in your department?					
4. To what extent is the communication and interactions between the IT teams and the Business unit teams on the event of a system change over?					
5. How is the extent of your involvement when the IT department is rolling out an IT based system on the organization?					
6. To what extent does IT implementation support the business' plans?					
7. To what extent does IT implementation support the business' objectives?					
8. To what extent does IT implementation support the business' vision and mission?					
9. How would you rate the timely manner in which IT is implemented within the team?					
10. Rate the extent in which IT has assisted you meet the organizations set targets and goals.					

SECTION C

These questions try to draw a clearer image on the challenges of business value IT alignment the organization faces as regards various aspects relating to the organization.

On a scale of 1-5; -Very Poor, 2-Poor, 3-Good, 4-Very Good, 5-Excellent

	1	2	3	4	5
1. How would you rate the IT knowledge of your team leaders and Manager of the department?					
2. How well can you rate your IT knowledge as regards the available Information technology related systems?					
3. How do you rate the business strategy knowledge of the Managers in the organization?					
4. How do you rate your business strategy knowledge?					
5. How would you rate the reception of the current IT systems when they were being implemented?					
6. How well is your knowledge on the banking industry?					
7. How do you describe the communication channel between IT and business managers?					
8. How would you rate the frequency in which the IT department and the other function communicate?					
9. In your assessment, how would you rate the level of understanding the IT team has towards your daily routine tasks and the goals you are to achieve at the end of the day?					
10. How would you rate your trust on the IT team in relation to previous experiences with the said team?					

SECTION D

This section wants to establish how the staff values the existence of the use of Information technology towards their productivity and the performance of the organization as a whole.

1. Does the use of Information Technology affect your productivity?

Yes

No

2. If the use of IT was to be discontinued, would your how would your level of productivity be affected?

Increase

Decrease

3. Do you think the implementation of IT in the organization has contributed towards the increase in performance consequently better profits?

Yes

No

4. Which of the options below best summarizes your opinion as regards the link between IT and Business and the value the two brings to the organization:

- a. IT, when aligned to the Business strategies brings value to the organization
- b. IT makes no difference in the organization, whether or not it is aligned to the organization's goals.
- c. IT reduces the value of the business, and should not be implemented in the organization.
- d. None of the above