THE APPLICATION OF BUSINESS PROCESS REENGINEERING AT KENYA AIRWAYS

NJONJO, STANLEY KIBE

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

NOVEMBER 2014
DECLARATION

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

Signed ……………………………… Date………………………………

STANLEY KIBE NJONJO

D61/63158/2011

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

Signed……………………………… Date…………………………………………

PROF. EVANS AOSA

ASSOCIATE DEAN, DEPARTMENT OF BUSINESS ADMINISTRATION

SCHOOL OF BUSINESS

UNIVERSITY OF NAIROBI
DEDICATION

I dedicate this research project to my entire family and friends for their support, patience, understanding and encouragement and above all their prayers.
ACKNOWLEDGEMENTS

First and foremost I would like to thank God for great health and giving me the capability to proceed with my studies. Secondly my wife has been instrumental in giving me moral support when crestfallen due to various reasons, and my children who inspired me to get this degree.

Special thanks and gratitude to my supervisor Professor Evans Aosa whose guidance, advice, constructive criticism and support played a vital role in the completion of this project. I also appreciate the entire staff in the MBA programme for their dedication and support.

Finally a special thanks to Kenya Airways for giving me the opportunity and special consideration to enable me further my education and hopefully this study shall be of mutual benefit for both parties.
ABBREVIATIONS AND ACRONYMS

AI – Artificial Intelligence

BPM – Business Process Management

BPR – Business Process Reengineering

DM – Database Management

EAA – East African Airways

ES – Expert Systems

ERP – Enterprise Resource Planning

GM – General Motors

IEDF – Integration Definition

IT – Information Technology

KQ - Kenya Airways

PADM – Process, Analysis, Design Methodology

ROI – Return on Investment

WCM – World Class Manufacturing
Every organization needs to have a strategy of how it operates in the ever changing environment so as to ensure it survives in the same environment. To be able to implement this strategy it is important in all types of organizations be it a profit or non-profit organization to use business process re-engineering as a tool to implement strategy. BPR ensures that output is maximized using the least resources. This research paper was on the application the application of business process at Kenya Airways and the objective was to understand how the airline uses business process re-engineering. I decided to use a case study to be able to get answers to my research problem. Primary data was collected using personal interviews with staff in the IT, Finance and BPR, after which content analysis was carried out on the responses received. There was a lot of secondary data too available from the KQ website. It was established that Kenya Airways has a 10 year strategy that is being driven by BPR. BPR currently is both pro-active and re-active and is being implemented using two methodologies: lean six sigma and customer journey. Change management came out strongly as a factor to their success using both internal and external change agents. Suggestions made to ensure they are able to become a world class airline include being more social, mobile, analytical and cloud. These will ensure the airline is able to achieve growth by using that best in class and tested approaches being used in developed economies. Recommendations made for further studies by the researcher were a study on how their biggest rival in the region Ethiopian airlines uses BPR and what some of their business objectives would be. Another area of research is how BPR links into a company’s strategic plan.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>DECLARATION</td>
<td>ii</td>
</tr>
<tr>
<td>DEDICATION</td>
<td>iii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>ABBREVIATIONS AND ACRONYMS</td>
<td>v</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>vi</td>
</tr>
<tr>
<td>CHAPTER ONE: INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>1.1 Background of Study</td>
<td>1</td>
</tr>
<tr>
<td>1.1.1 The concept of Business Process Re-engineering</td>
<td>2</td>
</tr>
<tr>
<td>1.1.2 Aviation Industry in Kenya</td>
<td>4</td>
</tr>
<tr>
<td>1.1.3 Overview of Kenya Airways</td>
<td>5</td>
</tr>
<tr>
<td>1.2 Research Problem</td>
<td>7</td>
</tr>
<tr>
<td>1.3 Research objective</td>
<td>8</td>
</tr>
<tr>
<td>1.4 Value of Study</td>
<td>9</td>
</tr>
<tr>
<td>CHAPTER TWO: LITERATURE REVIEW</td>
<td>10</td>
</tr>
<tr>
<td>2.1 Introduction</td>
<td>10</td>
</tr>
<tr>
<td>2.2 Theoretical Perspective of the study</td>
<td>10</td>
</tr>
<tr>
<td>2.3 Models for implementing BPR</td>
<td>12</td>
</tr>
<tr>
<td>2.4 BPM tools and techniques</td>
<td>13</td>
</tr>
<tr>
<td>2.5 Business Process Re-engineering</td>
<td>15</td>
</tr>
<tr>
<td>2.5.1 BPR and business strategy</td>
<td>15</td>
</tr>
<tr>
<td>2.5.2 BPR and IT</td>
<td>15</td>
</tr>
<tr>
<td>CHAPTER THREE: RESEARCH METHODOLOGY</td>
<td>19</td>
</tr>
<tr>
<td>3.1 Introduction</td>
<td>19</td>
</tr>
<tr>
<td>3.2 Research Design</td>
<td>19</td>
</tr>
<tr>
<td>3.3 Data collection</td>
<td>19</td>
</tr>
<tr>
<td>3.4 Data Analysis</td>
<td>20</td>
</tr>
<tr>
<td>CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION</td>
<td>22</td>
</tr>
<tr>
<td>4.1 Introduction</td>
<td>22</td>
</tr>
<tr>
<td>4.2 Respondents Profile</td>
<td>22</td>
</tr>
</tbody>
</table>
4.3 Application of Business Process Reengineering at Kenya Airways ............... 22
4.4 Discussion ................................................................................................. 28

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS................................................................. 30
5.1 Introduction ................................................................................................... 30
5.2 Summary ........................................................................................................ 30
5.3 Conclusion of Study ...................................................................................... 32
5.4 Recommendations ......................................................................................... 32
5.5 Limitations of Study ..................................................................................... 34
5.6 Suggestions for Further Study ...................................................................... 34

REFERENCES ............................................................................................................. 35

APPENDIX I .................................................................................................................. 41
CHAPTER ONE: INTRODUCTION

1.1 Background of Study

Companies are striving to gain market share in the global economy, and competition has become so fierce. In order to become a world class organization, companies need to work as a team and all business functional areas need to be properly integrated. As the basis of competition change from cost, quality, flexibility, responsiveness and the value of process management in now being recognized. The role that business process management can play in creating sustainable competitive advantage was termed as Business Process Reengineering (O'Neill and Sohal, 1999). Competitive advantage, according to Porter (1985), cannot be understood by looking at a firm as a whole. It stems from the many discrete activities a firm performs in designing, producing, marketing, delivering and supporting its product. Each of these activities can contribute to a firm’s relative cost position and create a basis for differentiation.

A firm can achieve competitive advantage if it possesses capabilities that allow it to create not only positive value but as well additional total value than its competitors (Porter, 1985). By understanding why a company can create value and whether it can continue to in the future is a necessary first step in diagnosing a firm’s potential for achieving a competitive advantage in the marketplace (Hitt, Wu, and Zhou, 2007). Therefore, a firm must understand how its products serve customer needs better than potential substitutes, the technology of production, distribution and sales and the business’s costs (Porter, 1985).
All this is evident that companies have to keep on trying to re-invent themselves and some of the most successful entities have BPR as their cornerstone to success. For example, locally Kenya Airways which is the flagship airline for Kenya has been known to have a good track record of profits which has been attributed to its continuous re-invention. This is manifested with the low cost airline it launched in order to try and keep the competition in check and protect its market share.

1.1.1 The concept of Business Process Re-engineering

The concept of reengineering traces its root back to management theories developed as early as nineteenth century. The purpose of reengineering is to make all your processes the best-in-class. Taylor(1910)suggested that managers could discover the best process of performing work and reengineering echoes the classical believe that there is one best method to conduct tasks. In Taylor’s time, technology did not allow large companies to design processes in a cross-functional or cross dimensional manner. Specialization was the state-of- the- art method to improve efficiency given the technology situation at that time.

According to Hammer and Champy (1993)business process reengineering (BPR) is defined as the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality, service, and speed. Although Hammer and Champy (1993)declared that classical organizational theory is obsolete, classical ideas such as division of labour have had an enduring power and applicability that reengineering has failed to demonstrate. BPR does not appear to qualify as a scientific theory because among other things, it is not duplicable and it is limited in scope(Weicher,
Chu, Lin, Le, and Yu, 2005). Today organizational development is a continuous process but the pace of change has increased in manifold. This means that in this competitive environment organizations will enhance its competitive advantage in its operation if it effectively designs and implements BPR selected processes. Davenport (1993) a famous BPR theorist emphasised the term process innovation, in his definition and he described it as encompasses the envisioning of new work strategies, the actual process design activity, and the implementation of the change in all its complex technological, human, and organizational dimensions.

BPR promised a novel approach to corporate change, and was described by its inventors as a fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical measures of performance such as cost, quality, service and speed.

The technique involved analysing a company's central processes and reassembling them in a more efficient fashion and in a way that rode roughshod over long-established (but frequently irrelevant) functional distinctions. Functional silos were often protective of information, for instance, and of their own position in the scheme of things. At best, this was inefficient. Slicing the silos into their different processes and re-assembling them in a less vertical fashion exposed excess fat and forced corporations to look at new ways to streamline themselves.

BPR's originators Hammer and Champy (1993) maintained that re-engineering had a wider significance than mere processes. It applied to all parts of an organisation, and it had a lofty purpose. “I think that this is the work of angels,” said Hammer in one of his more fanciful moments. “In a world where so many people are so deprived, it's
a sin to be so inefficient,” he added. Many commentators, however, saw re-engineering as a return to the mechanistic ideas of Taylor (1910). Others saw it as a shallow intellectual justification for downsizing, a process of slimming down that was being forced on many corporations by developments in it.

One of the faults of the idea, which the creators themselves acknowledged, was that re-engineering became something that managers were only too happy to impose on others but not on themselves. “If their jobs and styles are left largely intact, managers will eventually undermine the very structure of their rebuilt enterprises,” said (Champy, 1994).

BPR was implemented with considerable success by some high-profile organisations. For instance, Hallmark, a card company, completely re-engineered its new-product process and Kodak's re-engineering of its black-and-white film manufacturing process cut the firm's response time to new orders in half. The idea was given a boost by the development of enterprise resource planning (ERP). ERP systems enabled a firm's different operations to talk to each other electronically. At last the left hand of the organisation knew what the right hand was up to.

1.1.2 Aviation Industry in Kenya

The Kenyan Aviation website (Kenyan Aviation, About Us) states that the Kenyan airline industry is currently dominated by the private sector. The government regulates the industry through the Kenya Civil Aviation Authority. The Air Transport Act cap 394 of the laws of Kenya governs the operations of the airline industry in Kenya. The industry is recording dramatic growth thanks to expanding regional and global trade. More and more Kenyans can afford air travel today, unlike
the past when air transport was associated with expatriates and tourists. Meanwhile, the city of Nairobi is becoming an African hub for air travel with connections to the rest of the world.

The website site goes on to say that while some like Kenya Airways are battling reprisals from a cost-cutting plan and still launching new routes, others like Gulf Air and Virgin Atlantic are quitting Nairobi citing increased fuel costs, rising taxes and low passenger numbers. Even with some airlines getting out of the market there is still competition to Kenya’s flagship airline from the likes of East African Safari Air, Fly 540, Jetlink, Safarilink, Air Kenya and Astral Aviation. Globally, the airline industry is facing turmoil in the wake of a slowdown in the world’s economic growth, reducing global travel and limiting access to the funds for expansion. To survive, airlines around the world have adopted an almost identical approach, they have either lain off staff, slashed wages, retired old aircraft that consume more fuel and finally, retreated from unprofitable routes or sought to raise more capital.

1.1.3 Overview of Kenya Airways

Kenya Airways website (Kenya-Airways, 2013) states that the company was established by the Kenyan government on 22 January 1977, following the break-up of the East African Community and the consequent demise of East African Airways (EAA). It started operations on 4 February 1977, with two Boeing 707–321s leased from British Midland Airways. The following year, the company formed a charter subsidiary named Kenya Flamingo Airlines, which leased aircraft from the parent airline in order to operate international passenger and cargo services
In 1986, Sessional Paper Number 1 was published by the Government of Kenya, outlining the country's need for economic development and growth. The document stressed the government opinion that the airline would be better off if owned by private interests, thus resulting in the first attempt to privatise the airline. The government named Philip Ndegwa as Chairman of the Board in 1991, with specific orders to make the airline a privately owned company. In 1992, the Public Enterprise Reform paper was published, giving Kenya Airways priority among national companies in Kenya to be privatised.

In 1994 the International Finance Corporation was appointed to provide assistance in the privatisation process, which effectively began in 1995. British Airways, KLM, Lufthansa and South African Airways, all held interest in Kenya Airways. KLM was eventually awarded the privatisation of the company, which restructured its debts and made a master corporation agreement with the Dutch airline that bought 26% of the shares, becoming the largest single shareholder since then. The Government of Kenya kept a 23% stake in the company, and offered the remaining 51% to the public; however, non-Kenyan shareholders could at most have a participation of 49% into the airline. Shares were floated to the public in March 1996, and the airline started trading on the Nairobi Stock Exchange. Following the takeover, the Government of Kenya capitalised US$70,000,000 ($102,467,643 in 2013), while the airline was awarded a US$15 million loan from the International Finance Corporation to modernise its fleet.

In June 2012 the company announced the issuance of rights worth KSh20 billion, aimed at increasing capital to support expansion plans. Following the allocation of shares, KLM increased their stake in the company from 26% to 26.73%, while the
Kenyan government boosted their participation into the company from 23% to 29.8%, becoming the new major shareholder of the carrier.

1.2 Research Problem

Organizational restructuring including job redesign can be used to improve the delivery of goods and services and to achieve common corporate goals, for example customer satisfaction, return on investment, and market share. A researcher (Hammer, 1990) provided guidelines for re-engineering initiatives which included the combination of several jobs into one, decisions made by the workers, performing the steps in a process in a natural order, production of multiple versions of the process, work should be performed where it makes the most sense, checks and controls must be reduced, reconciliation must be minimised.

The airline industry in East Africa which is the domicile for Kenya Airways is characterized by intense competition and high cost structures, high fuel costs and high number of staff. Streamlining every aspect of operations to bring in efficiencies is a high priority. Improving management visibility to operational and business performance is imperative for this industry and makes a very good area to apply some of the business concepts that would aid airlines in driving them to profitability.

In order to deal with above challenges, some academics have conducted research to suggest ways in which BPR can be used by some airline. In Saudi Arabia a researcher Al-Amri (1998) researched on how to transform the business process of the Saudi Arabian Airline to achieve high customer satisfaction. Other researchers, for example Khan (2000) have conducted more specific research in the airline
industry and investigated how BPR can be used to improve the air cargo handling process.

General Motors from a study done (Studymode, 2010) uses the business process reengineering for the information systems infrastructure to cut redundancies and requiring information process and the link among Ford centre in world wide. Reengineering the information system infrastructure of GM has increased transparency to the customers. Not only GM’s staff can update the company’s information exactly in the same time and improve the communication among colleagues, but the customers or suppliers can contact the company by real time event they are not in their countries. After this plan was applied to the Ford centres across the world, it can save 10% - 25% on support costs, 3% - 5% on hardware, 40% - 60% on software licensing fees, and increased efficiency by overcoming incompatibility issues by using just one platform across the entire company.

With these studies and practises in the industry, it highlights the need for organisations to implement BPR in their organisation. Different companies have different value chains and will utilize BPR differently for various strategic objectives. Kenya Airways currently uses BPR to streamline their processes and should provide an opportunity to understand how Airlines uses this tool to improve on their business efficiencies to ensure the bottom line is favourable for shareholders. How does Kenya Airways apply business process re-engineering?

1.3 Research objective

This study had one objective. This was to establish the application of business process re-engineering at Kenya Airways.
1.4 Value of Study

This study would be valuable to several players. It will be useful to policy makers in the aviation industry. It will assist them in making the best policies in the industry that will facilitate industry growth. A deeper understanding of BPR as a strategy tool will assist in better decisions on policies for the industry as a whole.

The study will also contribute to knowledge for fellow researchers and academicians. They will benefit from an in-depth case study of the BPR applied to the aviation industry and more specific Kenya airways. Such studies can be replicated in other sectors

Business process re-engineering will be invaluable to practitioners such as business executives who are trying to remain competitive in this turbulent market environment which will lead to innovative ways of doing business that help enhance your customer experience, shareholder wealth and efficiency in operations and costs.
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Reviewing of literature will be important to help us in reviewing bodies of knowledge in the area of study. In this chapter we shall review Business process Redesign and Enterprise Resource Planning.

2.2 Theoretical Perspective of the study

Some theories try to explain the BPR concept and one of them is the techno-centric theory that has its roots in the logic of technological determinism and emphasizes the role of IT in determining the process and outcome of BPR redesign and implementation. Markus and Robey (1988) say that information technology is seen as an independent force determining aspects of an organization at different levels of analysis. In the history of technology literature, Bruce (1995) refers to this perspective as a nomological account of technological determinism. In his words he says, “The claim here is that technology itself exercises causal influence on social practice, technological determinism can be seen as the view that, in the light of the past (and current) state of technological development and the laws of nature, there is only one possible future course of change. In Nomological accounts, the technological-driven society emerges regardless of human desires or values”.

Another theory is the socio-centric theory of design that explains its perspective to business process re-design assumes that organizational outcomes (including the formulation of effective redesigns) occur not due to the technology but due to human motives and human action. This perspective underplays the role of technology and
focuses (almost exclusively) on the role of social factors/processes in explaining BPR-related outcomes. Changes in all aspects of organizations (including technology) and their successes are ultimately attributed to social processes such as leadership, communication, etc. or to arrangements in the organizational structure. The book by Hammer and Stanton (1995) strongly indicates the existence of the socio-centric theory-in-use among the practitioners.

The theory of constraints about BPR according to Goldratt (1984) describes that organizational performance is dictated by constraints. These are restrictions that prevent an organization from maximizing its performance and reaching its goals. Constraints can involve people, supplies, information, equipment, or even policies, and can be internal or external to an organization.

The theory says that every system, no matter how well it performs, has at least one constraint that limits its performance and this is the system's weakest link. The theory also says that a system can have only one constraint at a time, and that other areas of weakness are "non-constraints" until they become the weakest link. You use the theory by identifying your constraint and changing the way that you work so that you can overcome it. The theory was originally used successfully in manufacturing, but you can use it in a variety of situations. It's most useful with very important or frequently-used processes within your organization.
2.3 Models for implementing BPR

Early study on BPR implementation did not give conclusive methodologies on implementing BPR. Most of the organizations achieved BPR in two steps one, by first analysing the system to understand how different functions were coupled to each other and orchestrated to produce a common process outcome and two, during implementation, different methodological choices were made for different projects. It was therefore difficult for project planners to physically proceed with BPR.

Various researchers have proposed different models for BPR. For example Wastell, White, and Kawalek (1996) proposed a PADM methodology (process analysis and design methodology) having four phases being process definition, baseline process selection and representation, process evaluation, and target process design. Davenport and Short (1990) presented a methodology containing five steps develop business vision and process objectives, identify redesign processes, understand existing processes, identify IT levers, and build a prototype of the process. Kettinger, Teng, and Guha (1997) derived a composite stage-activity methodology for the reengineering processes based on the descriptions of 25 BPR methodologies. It includes six stages envision, initiate, diagnose, redesign, reconstruct, and evaluate. Wu (2002) proposes a model that integrates strategy and IT. The three steps are identifying corporate strategies, selecting strategic paths for BPR with IT application and finally implementing BPR. Each methodology has its own specialties and properties, and it is at the disposal of the BPR project planners to choose the most appropriate methodology.
2.4 BPM tools and techniques

Early studies conducted by O'Neill and Sohal (1999) to identify the tools and techniques used in the re-engineering classified them in the following categories being Process visualization, process mapping, change management, benchmarking and process and customer focus. More recent studies by Gunasekaran and Kobu (2002) have classified the tools as conceptual models, simulation models, object-oriented model, integration definition (IDEF) models, network models and knowledge-based models.

Conceptual models have been widely employed to understand the concept of BPR and its major enablers. Powell (1994) developed a conceptual model and a framework for highlighting the role of IT in engineering. Yu and Mylopoulos (1996) proposed a framework that focuses on the modelling of strategic business processes in their organizational settings. Conceptual models according to Gunasekaran and Kobu (2002) are focused on strategies and methods for engineering and they deal with information flow and human resource management.

Simulation models are often used at an operational level of BPR. They help model the system with the objective of identifying non-value and value adding activities. The advantage of modelling systems according to (Gunasekaran and Kobu) 2002 is that they are used in measuring performance and in conducting experiments by suitably modelling the whole operational system and they are less time consuming.

Object oriented models became popular in the 1990s for taking into account the flexibility and reuse of modelling processes. The models are flexible as they are able to model any type of manufacturing/ service processes. However they have limitations
as they are difficult to understand by both the user and model builder. These models only represent part of the total system and do not consider the strategic implications.

The development of Integration Definition (IDEF) models for analysis of business processes was motivated by the desire to increase productivity by improving the communication and structure of manufacturing system. Some of the challenges encountered in modelling and simulating a complex system as discussed by (Mujtaba) 1994 are production, the interactions of diverse activities such as sales forecasting, order processing, production planning, material requirement planning, procurement and distribution. IDEF models just like the Object oriented model, do not take into account the strategic implication of BPR but they have the advantage of being able to model the whole system.

Network models have been used to map organization processes to guide design work processes and their supporting information technologies in order to manage customer satisfaction and to measure productivity. An example of a model that being used in the current business environment are Enterprise Resource Planning (ERPs).

Knowledge-based models include Artificial Intelligence (AI) and Expert Systems (ES) and Database Management (DM). In order to facilitate the process of reengineering by minimizing the complexity of the modelling and analysis of BPR, limited knowledge-based models have been developed. Knowledge-based models are user-friendly, but have limited applications considering the areas of reengineering.
2.5 Business Process Re-engineering

2.5.1 BPR and business strategy

In order to successfully implement BPR into organizations, Carr and Johansson, (1995) strongly propose for incorporation of strategically driven reengineering programs. Sarkis, Presley, and Liles, (1997) supports this view by stating that BPR needs to be viewed as a strategic program, in which, “any process that is re-engineered will not only have an impact on the function that has direct control over the process, but other functions that will necessarily support the re-engineered process.

When the BPR is incorporated in the strategy, top management will be committed and this will result to them availing resources needed in the re-engineering process. BPR, according to O’Neill and Sohal (1999) is a strategic cross functional activity that must be integrated with other aspect of management it it’s to succeed.

2.5.2 BPR and IT

In order to reap the full benefits of BPR, the use of information technology (IT) has been conceived to be a major contributing factor. While IT has been traditionally been used for supporting the existing business function, it now plays as a role enabler of new organisational forms and patterns of collaboration within and between organisation. In the early 1990s, Hammer and Champy (1993) identified several disruptive technologies that challenged how work was to be performed, for example shared databases making information available at many places, expert systems allowing generalists to perform specialist task, telecommunication networks allowing organisations to be centralised and decentralized at the same time, decision-support
tools allowing decision-making to be part of everybody’s job, wireless data communication allowing field personnel to work office independent and ERP systems such as SAP have been used to improve process efficiency.

Information technology (IT) and Business Process Reengineering (BPR) have recursive relationship. IT capabilities should support business processes and business should be in terms of the capabilities IT can provide. Davenport and Short (1990) refer to this broadened, recursive view of IT and BPR as the new industrial engineering business process represent a new approach to coordination across the firm, IT promises and its ultimate impact is to be the most powerful tool for reducing cost of coordination Davenport and Short (1990) outline the following capabilities that reflect the roles that it can play in Business Process Reengineering (BPR) namely transactional, analytical, knowledge management, geographical, informational, automatic, sequential, tracking and disintermediation.

Broadbent, Weill, and SaintClair (1999) agree that IT plays an important role in enabling the implementation of a successful BPR. They however go ahead to state that it can be an inhibitor of reengineering, if the organisation infrastructure is inadequate or inflexible. It should however be noted with clarity that the role of IT is not to automate the business process. If nothing changes about the way work is done then BPR is not achieved and the economic benefits are minimal.

2.5.3 Success and failure of BPR

Holland and Kumar (1995) showed that 60–80% of reengineering programs end unsuccessfully. (Hammer and Champy, 1993) A review of companies found many were left with processes that were more difficult to manage than the previous ones,
costs had increased, and employees were demoralised. Hall, Jim, and Judy (1993) claimed that 50-70% of BPR initiatives fail to deliver the expected results. This is because, although there is an improvement in particular areas, for example, a 20% cost reduction, a 50% process-time reduction, and a 25% quality improvement, at the same time business-unit cost increases and profits decline. However, Smith (2003) noticed among other organizational change attempts, the success rate for reengineering was second highest (23%) next to technology change (28%), and compared with culture change (19%), mergers and acquisitions (14%) and restructuring and downsizing (10%). It is therefore important to identify the elements that lead to a successful BPR.

Some of the success factors as discussed by Majed and Zairi (1999) are change management, management competency and support, organisational structure, project planning and management and IT infrastructure. Change management refers to all the human and socio-related changes and cultural adjustment techniques needed by management to facilitate the new insertion of newly-designed process and structures into working practices. Sound management processes ensure that BPR efforts will be implemented in the most effective manner (Bashein et al., 1994). The most noticeable managerial practices that directly influence the success of BPR implementation are top management support and commitment, championship and sponsorship, and effective management of risks. As BPR creates new processes that define jobs and responsibilities across the existing organisational functions (Davenport and Short, 1990), there is a clear need to create a new organisational structure which determines how BPR teams are going to look, how human resources are integrated, and how the new jobs and responsibilities are going to be formalised. Successful BPR
implementation is highly dependent on an effective BPR programme management which includes adequate strategic alignment effective planning and project management techniques, identification of performance measures adequate resources, appropriate use of external orientation and learning and effective use of consultants. As discussed earlier, IT infrastructure is a vital component of successful BPR. Effective alignment of IT infrastructure and BPR strategy is also very critical.

Business Process Re-engineering (BPR) is being used to improve the efficiency of the organizational processes, however, a number of obstacles have prevented its full potential from being realized. One of these obstacles as discussed by Rao, Mansingh, and Osei-Bryson (2012) is caused by an emphasis of the business process itself at the exclusion of considering other important knowledge of the organization. Another is due to the lack of tools for identifying the cause of the inefficiencies and inconsistencies in BPR. Other failure factors have been cited out as lack of top management support financial resources people resistance, IT related problems and ineffective BPR teams, lack of project management, and problems in communication (Smith, 2003).
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter seeks to describe the method of conducting research that was employed by the researcher. The thematic areas that shall be covered are research design, data collection and data analysis respectively.

3.2 Research Design

According to Parahoo (2006) the design selected for research should be the one most suited so as to achieve an answer to the proposed research questions. Burns and Grove (2003) define a research design as a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings. Parahoo (2006) further describes a research design as a plan that describes how, when and where data are to be collected and analysed. For the purpose of the proposed research questions the researcher chose to carry out a case study.

Case study according to Baxter and Jack (2008) is an approach to research that facilitates exploration of a phenomenon within its context using a variety of data sources. This ensures that the issue is not explored through one lens, but rather a variety of lenses which allows for multiple facets of the phenomenon to be revealed and understood.

3.3 Data Collection

Semi-structured interviews were used to collect data. The advantage of using semi-structured interviews according to Barriball and While (1995) are that it has the
potential to overcome the poor response rates, it is well suited to the exploration of attitudes, values, beliefs and motives, it provides the opportunity to evaluate the validity of the respondent's answers by observing non-verbal indicators, which is particularly useful when discussing sensitive issues, it can facilitate comparability by ensuring that all questions are answered by each respondent and finally it ensures that the respondent is unable to receive assistance from others while formulating a response.

The interview guide was administered to the senior management staff at Kenya Airways. Three members were interviewed who have a firm understand of their BPR processes, the head of business process re-engineering, the head of business intelligence and a manager in technical.

3.4 Data Analysis

In order to analyse this case study interview, content analysis was used. Trace(2001) defines content analysis as "an overall approach, a method, and an analytic strategy" that "entails the systematic examination of forms of communication to document patterns objectively".

Through content analysis, the researcher read and re-read content in order to code for emergent themes. The advantage of using content analysis it that it conforms to aspects such as system, objectivity, quantification and generalizability. Objectivity allows the analysis is pursued on the basis of explicit analysis, which enables different researchers to obtain the same results from the same documents or messages. Systematic allows inclusion or exclusion of content and is done according to some consistently applied rules where by the possibility of including only materials which
support the researcher’s ideas – is eliminated and generalizability which allows the results obtained by the researcher to be applied to other similar situations.
CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter describes and discusses the results of the interviews conducted at the organization, as well as other information made available to the researcher.

4.2 Respondents Profile

The target number to interview was five. This was supposed to consist of senior management who are subject matter experts in their respective functional areas. Out of the targeted 5 respondents the researcher was able to interview 3 respondents. Out of the 3 respondents included the head of business process re-engineering, head of business intelligence in IT and the head of finance planning in finance. I was unable to secure further appointments due to busy calendars of most of the management.

The respondents were well versed in their areas of specialization, however the biggest contributor was the head of business process re-engineering which was a position created by Kenya Airways to ensure that there is an executive sponsor to spearhead business process re-engineering efforts for the entire organization. The other two respondents provided information with respect to their individual respective departments and provided a good insight as to how BPR is portrayed.

4.3 Application of Business Process Reengineering at Kenya Airways

Kenya airways aspire to be a world class airline and to become a world class airline it will need to have world class operations. The airline in order to realize this ambition
decided to create an executive post reporting to the CEO that will spearhead the drive towards operational excellence in the next couple of years. Around the year 2006/7 the organization had automated some of its operations however they were unable to share information with other functional areas across the company. Considering that the airline has a remarkable 10 year strategy ending in 2021 known as project mawingu that is an aggressive plan to increase its global footprint by increasing the number of flight destinations from 56 to 115 increasing its presence from 4 continents to 6. This plan shall also represent a growth in terms of countries of operation from the current 45 countries to 77. To support such an ambitious plan the airline shall also require increasing its fleet from the current 50 to 107.

Kenya Airways is a skyteam member which is an airline alliance with a centralised management team, SkyTeam Central, based at the World Trade Center Schiphol Airport on the grounds of Amsterdam Airport Schiphol in Haarlemmermeer, Netherlands. SkyTeam was founded in 2000 by Aero México, Air France, Delta Air Lines, and Korean Air. SkyTeam was the last of the three major airline alliances to be formed, the first two being Star Alliance and Oneworld. However, in terms of the number of passengers and the number of members, SkyTeam has grown and is now the second largest alliance in the world, second only to Star Alliance and ahead of Oneworld.

As of March 2014, SkyTeam flies to more than 1,000 destinations in 178 countries, and operates some 15,700 daily flights with a combined fleet of over 4,400 aircraft, including associate carriers. The alliance and its members have a total workforce of 459,781; furthermore, it has 564 lounges worldwide to serve 588 million annual passengers.
Kenya Airways by being a strategic member of skyteam and its biggest rival Ethiopian Airlines being a member of the start alliance presents stiff competition for the airline in the region and needs to act quickly and swiftly in terms of ensuring that shareholder wealth is not eroded.

Kenya Airways has realized that in drafting their 10 year strategic plan that it may encounter a few challenges. One of the risks that they have highlighted is the current JKIA infrastructure that needs to support both their fleet and the high volume of customers who shall be getting into and out of the country. The airline is an important player for the vision 2030 countrywide strategy. At least this is no longer a risk for the airline as the recent fire at Jomo Kenyatta International Airport expedited the program and ensured there is enhanced capacity and meets world class standards of separating the departure and arrival terminal.

Human capital is defined as a second risk for the airline as it is a highly specialized business from the pilots, engineers, planners etc. Some of these skillsets require high levels of training that can only be found abroad, for example the new Boeing Dreamliner that are being acquired will need their pilots to be upskilled, engineers to be re-training, the ground services crew will also need to be training on how to taxi the plane and handle embarking and disembarking of passengers. To mitigate this risk the airline plans to look for expatriates to bridge the skill gap as they upskill local staff.

Fuel costs and funding is also a risk for the airline because over 40% of the operational costs is normally used to cater for fuel so any increase in fuel costs has a big impact on the bottom line which has a big ripple effect on the business. The
acquisition of new equipment like planes, spare parts costs a lot of money and the cash flow of Kenya Airways may not be able to fund some of this capital expenditures requiring the airline to think of ways to protect itself from escalating fuel costs and need for capital by hedging and the rights issues done some few years back to raise some of the funds required.

Kenya Airways if it were to be assessed in from a scale of 1-4 in terms of having world class processes the airline would be placed above average of the scale (3) based on facts on the ground of their processes being cross functional and their performance is around the same levels as most of the big players in the industry.

BPR as mentioned is a cardinal part of Kenya Airways and is both pro-active and re-active. It is well aligned with the strategic plan because in order for the airline to realize its strategy, there have to be a few objectives that act as the northern light to the various business functions. One of the paramount business objectives set out for BPR is improving the customer experience. This objective has a bearing on revenues since it ensures that customers shall return and research shows that most businesses make most of their revenue from their current customer base compared to new customers coming into the fold.

Operational Excellence is mostly important for back office operations that are currently automated through an ERP that has helped in ensuring processes that support the core business work in an efficient manner. Initially the back office operations were manual leading to processes and KPI’s being inconsistent and in siloes with limited integration. This presented challenges like lengthy decision making processes, no single source of truth, redundant processes and roles amongst
others. With the introduction of the ERP processes like procure to pay were streamlined across the globe where Kenya Airways has outstations and the process of procuring an item or service was standardized in the ERP that was able to guide business users on what they need to do and allow for the various signatories to approve or disapprove such requests. Other automated processes are the buy to maintain, plan to purchase, receipt to issue etc.

BPR is currently being implemented using Lean Six Sigma methodology for Process Improvement. Lean Six Sigma is a process improvement program that combines two ideas: Lean - a collection of techniques for reducing the time needed to provide products or services, and Six Sigma -a collection of techniques for improving the quality of products and services, substantially contributing to increased customer satisfaction. By combining the two, Lean Six Sigma is a proven business management strategy that helps organizations operate more efficiently. Lean Six Sigma is one of the most popular business performance methodologies in the history of corporate development.

Another method being used with the one described above is the customer journey. This is the sum of all experiences a customer has with a supplier of goods and/or services, over the duration of their relationship with that supplier. This can include awareness, discovery, attraction, interaction, purchase, use, cultivation and advocacy. It can also be used to mean an individual experience over one transaction; the distinction is usually clear in context. As the economics of customer experience hang on the 'distinct economic offer' definition, one conclusion some commentators have made is that the 'experience as everything' definition is in fact a reworking of 'service excellence'.
Some of the paradigm shifts are major and require a systematic method of transitioning that notes risks and mitigates them. One major shift was the transitioning from a paper based mode of working to the ERP. In the human resources function for instance the recruitment process it was painstaking slow to hire an individual and very inefficient because of the manual nature of the process that required movement of papers for requisitioning of a job applicant all the way to on boarding an applicant as an employee. This manual process had to be changed with an automated one that has the requisitions being done in the ERP, being approved online and the applicants using a self-service portal to apply for jobs and successful applicants automatically on boarded as employees with all their information being entered automatically into the HR system and payroll.

For the labour force that was used to doing things using the paper based method it was a bitter sweet moment because some felt that their jobs were at risk whereas the management felt they would be able to meet their KPI’s better and the nature of the airline industry in East Africa has not been very rosy with employees being laid out due to tough financial times in the company. So a well laid out plan for change management strategy was necessary characterized by training change agents and ensuring they applied the same methodology throughout the program. Also there was executive push for BPR from CEO and executive committee level and the head of BPR department with significant clout and a team of trained staffers. BPR practices were embedded in the company through information campaigns, trainings and annual objectives setting for all individuals in the company. There was a mix of both local and external change agents but now the BPR department is currently driving the
change management strategy. So conclusively for Kenya Airways change management was well addressed by CEO and management.

4.4 Discussion

On analyzing Kenya Airways’ findings there is a strong resonance with the socio-centric theory and disproves the techno-centric theory. The socio-centric theory of explains its perspective to business process re-design assumes that organizational outcomes (including the formulation of effective redesigns) occur not due to the technology but due to human motives and human action. This perspective underplays the role of technology and focuses (almost exclusively) on the role of social factors/processes in explaining BPR-related outcomes. Changes in all aspects of organizations (including technology) and their successes are ultimately attributed to social processes such as leadership, communication, etc. or to arrangements in the organizational structure. In the Kenya airways context the BPR processes are deliberately in place due to the leadership beliefs and use technology as one of the agents for driving change. The change in macro-economic environments like rising costs of fuel, lack of skilled staff change of taxing structures all lead to the airlines’ leadership to look for ways of increasing customer numbers, reduce staff costs and training of staff look to enforce this theory.

Another theory that is backed by my findings is the theory of constraints. It describes that organizational performance is dictated by constraints. These are restrictions that prevent an organization from maximizing its performance and reaching its goals. Constraints can involve people, supplies, information, equipment, or even policies, and can be internal or external to an organization. Kenya Airways resonates this
theory because its biggest challenge to achieving its maximum performance is the rising cost of fuel however other challenges like lack of skilled staff for flying their planes and unfavourable tax structures all present challenges to the airline and using business process re-engineering helps the airline in being adaptive and mutate in a way to survive and deliver value to shareholders.
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the summary of the finding from chapter four and it also gives conclusions and recommendations drawn in quest of addressing the research question or arriving at the research objective which was to determine how Kenya Airways applies business process re-engineering.

5.2 Summary

The study aimed to investigate the application of business process reengineering at Kenya Airways. From the target respondents the percentage that gave feedback was 60%. This percentage comprised of the head of business process engineering, their business intelligence head and a finance planning manager. On assessing their maturing level of processes I would classify them as being at a best practice level where their processes are integrated across geographies and functions. The airlines board of directors’ commitment to BPR is by putting in place a senior placed individual to drive world class excellence across the business whose mandate is to mainly improve the customer experience and ensure the airline has operational excellence in all its bases of operation.

Kenya Airways has a strategic plan project ‘mawingu’ which is the northern light of the company and the BPR activities are aligned to this strategy which is a growth and expansion plan that will have an increased footprint of the airline globally. This expansion should not necessarily mean a proportional increase in operational costs.
hence why their processes should be automated. For example currently they may be processing invoices in their hundreds every month from suppliers, once they expand to around 115 destinations from the current 56 it will mean that they will be interacting with even more suppliers and the number of invoices may increase from the their hundreds to their thousands. With a robust ERP in place the need for new personnel to act in the process will not all over sudden jump because the workload has gone up, the number of errors shall not go up to create inefficiencies in the process, it will simply mean the workload will be a lot for the process actor.

The project mawingu strategy was noted to have some risks some of which have been avoided and others for example lack of skilled labour are being managed by the automated of business processes which in turn means that Kenya Airways is required to only work with lean staff in the execution of process tasks and activities. Other risks noted were the to do with money, that is funding and managing fuel costs, mitigating steps

In terms of how BPR is actually implemented is through the lean six sigma methodology and customer journey that caters for both re-active and proactive efforts for business improvement. Change management is also part of the plan in the BPR effort to ensure that there is a smooth transition from the old way of doing things into the new era. The change management process is also very important to ensure that there is buy in across the business to ensure that the adoption is as high as possible. In this case for Kenya Airways it was a top down cascade from the CEO to the rest of the business and change agents were present in all functional areas to be the ambassadors and influence their peers smoothly into the new processes using training and WIIFM (what’s in it for me).
Capability building is key for their program therefore there is a balance of internal and external resources to drive the change. However as the implementation progresses there are concerted efforts to limit the involvement of external resources which enables the inculcation of their culture meticulously in achieving their objectives that will have least resistance.

5.3 Conclusion of Study

The study established that Kenya Airways has a very strong strategy in place that is supposed to give the airline direction for 10 years and they are applying business process re-engineering to meet multiple business objectives being enhancement of operational excellence across their global business operations. Competitive advantage is being felt by being able to lock in their customers by providing them a journey that is pleasant and memorable ensures that once they get into deep competitive landscapes they should at least maintain the loyalty of their customers.

Finally there is a strong linkage between their strategy and business process re-engineering that has forced the board to sanction the creation of a senior position to help steer the airline toward the realization of their project ‘mawingu’ strategy which is key to their vision of being the ‘Pride of Africa’. Through the assessment of the risks most of them through aggressive BPR should be mitigated if not completely avoided.

5.4 Recommendations

From findings and discussions it’s evident that Kenya Airways are quite clear on their strategy which is in line with their vision, the airline has made significant steps
towards being a world class airline by implementing computer based information systems and setting up structures to drive business process improvements. There is always room for improvement in everything one does and one of them is being able to take their information systems to the next level by ensuring that they have state of the art transactional business intelligence systems to help in the decision making process.

Right now businesses are required to be social, mobile, analytical and cloud ready. Social simply means being able to utilize the social media platforms to generate revenue, provide customer service amongst other business operations. The social media is a platform that can reap lots of benefits for the customer facing function of the company in taking it to the next level. Right now the mobile phone penetration is around 4 billion handsets in the world and the customer journey of Kenya Airways customer should have this as a medium to enable flight bookings, customer queries, mobile payments using visa, MasterCard etc.

There is a lot of data that is generated by operational activities interfacing with various actors supplier, customers, employees that need to be analyzed to get customer patterns, supplier performances, employee productivity etc. This information if availed to decision makers in good time can help in giving decision makers proper awareness and insight to make the best decision which if done early enough in a pro-active fashion will be more effective than done re-actively. Cloud is basically a managed way of running your computer based information systems where a vendor does all the hosting and maintaining of your IT solutions and the customer accesses these systems over the internet and pays a subscription fee lowering the initial capital outlay and the customer only factors in operational costs. It eliminates the need for data centers, IT professionals and license support fees.
5.5 Limitations of Study

Due to the limited time that this research project could be conducted was not able to get 100% of the target respondents for interview as they had busy schedules that were out of the office. Some of the respondents actually commented that the interview was too long so getting their attention for the required time was a bit challenging.

To bridge the gap of the lack of a good number of respondents there was a lot of secondary data available on the media, their corporate website and material shared by Kenya Airways employees. Some of this material was their project mawingu strategic plan and their audited financial results.

5.6 Suggestions for further study

The study aimed in determining the application of business process reengineering at Kenya Airways. One additional study could be done in determining how BPR is used to drive the strategic plans of a company. Another study would be the effectiveness of ERP’s to enhance operational excellence and drive competitive advantage.

BPR is an exciting topic that can be applied for multiple reasons. Kenya Airways applies it for two main objectives, it would be interesting to know how their main rival in the region Ethiopian Airlines use it. The research topic would read how Ethiopian Airlines applies business process re-engineering. An analysis of their operational and strategic challenges would be of interest to players in the region and scholars to understand whether challenges are topical or widespread.
REFERENCES


36


APPENDIX I: INTERVIEW GUIDE

1. Does KQ apply BPR? How?

2. What are the objectives of the process improvement effort?

3. What is the process improvement recommendations involved?

4. Did the process improvement effort crossed several functional areas?

5. Does KQ have a strategic plan?

6. (If your organization does not have a strategic plan skip to question 13)

7. Does the process improvement effort directly result from an issue/problem identified from the strategic planning process?

8. Has the process improvement effort directly supported one or more goals contained in your strategic plan?

9. Does the organization devote the correct amount of resources (time, money, manpower) to the process of strategic planning?

10. Does KQ devote more than the required amount of resources (time, money, manpower) that were necessary for the successful accomplishment of strategic planning?

11. Does Strategic planning contribute to the success of our process improvement effort?

12. How has the process improvement had an impact in your day to day work?

13. Would you recommend this process to companies that are ready to go through a paradigm shift?

14. Was change management a factor to consider in the process improvement steps?

15. When starting out the process were the benefits tangible?

16. Did you utilize external or internal resources to manage the process?
17. Do you feel that there is internal capacity now to go through a similar process?

18. Do you feel that KQ is more competitive globally and can be categorized in the same scale as other airlines like Emirates and Turkish airlines?