EFFECTS OF BUSINESS PROCESS RE-ENGINEERING ON COMPETITIVE ADVANTAGE OF ST. JOHN AMBULANCE IN NAIROBI, KENYA

BY

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Declaration

This project is my own original work and to the best of my knowledge has not been presented to any other University for any award.

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This work has been submitted for examination with my approval as the University supervisor.

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Dedication

I dedicate this work to My Mum Lucy Gatakaa and my son Ian Baraka Munene for they kept on inspiring me to do more than I had done before.

Acknowledgement

I would like to thank my supervisor Muathe SMA (PhD) for his tirelessness in directing me towards attaining the best in my research. I would also like to thank my MBA class-mates willy Malile Kioko and Erastus Ndeleva for they kept reminding me of the importance of keeping in the right direction of my research proposal. I cannot underscore the role played by each and every lecturer at Kenyatta University, not forgetting the entire administration.

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Abbreviations and Acronyms

BPR	Business Process Reengineering
IT	Information Technology
MMEs	Medium Micro Enterprises
RA	Research Assistant
RBV	Resource-Based View
SJAK	St John Ambulance Kenya
SMEs	Small Micro Enterprises
TQM	Total Quality Management
VCT	Voluntary Counseling and Testing

Operational Definition of Terms

Business process re-engineering is 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.

Competitive Advantage is the strategic advantage a firm has over its rival entities within its competitive industry. Achieving competitive advantage strengthens and positions a business better within the business environment.

Financial Resources are concern the ability of the business to finance its chosen strategy. A strategy that requires significant investment will place great strain on the business finances.

Human resources is the set of individuals who make up the workforce of an organization, business sector.

Information technology is the use of computers, electronic systems, and networks to store, process, transmit and receive data

Organizational culture is the collective behavior of humans who are part of an organization and the meanings that the people attach to their actions. It includes the organization values, visions, norms, working language, systems, symbols, beliefs and habits. It is also the pattern of such collective behaviors and assumptions that are taught to new organizational members as a way of perceiving, and even thinking and feeling.

Organizational structure is the formal design of managerial hierarchies within a company, setting forth both reporting relationships and information flows. Organizational structure is the base upon which operational policies are formed. Structure plays a large role in shaping organizational culture as well, and companies may find it necessary to change organizational structure to remain competitive to changes in the industry or marketplace.

Abstract

With the escalating health care costs, healthcare service providers are also continuously seeking ways to stay competitive and provide quality service to the customers. Healthcare industry has traditionally emphasized on breakthroughs in operating procedures and technology in the bid to stay competitive. Surprisingly, St John Ambulance has remained static in service delivery, using old ways of doing thing as her competitors are re-engineering their processes. This status of affairs has rendered St. John Ambulance less competitive to the extent that it is copying what newcomers are doing. In fact St. John Ambulance is losing business in Kenya and may be rendered redundant when no action is taken to correct the situation. It risks coming down on its knees, although it was the first organization to start these services in Kenya. Although many studies on Business Process Re-engineering and competitive advantage have been conducted globally, very few studies addressed the positive cultural change; effective structure change, efficient information technology, and effective resources as factors determining the improvement of competitive advantage at St John Ambulance. In fact there is scanty information on business process re-engineering as strategy to improve competitive advantage at St John Ambulance, Kenya in the industry. It is against this background that this study attempted to analyze business process re-engineering as strategy to improve competitive advantage at St John Ambulance, Kenya. This study specifically sought to establish how the internal factors of Business Process Re-engineering at St John Ambulance would improve its competitive advantage. This study used a descriptive survey and was conducted in Nairobi's on companies offering Ambulance services. The target population will be the 68 board of directors and Managers, and employees of these companies. A sample population of 34 respondents (50% of target population) was obtained using stratified sampling method to obtain the respective number of respondents in each stratum. The respondents from each stratum were selected using simple random sampling. Data was collected using a semi structured questionnaire which was pre-tested for reliability and validity during a pilot test. The data collected was classified, measured and analyzed using descriptive statistical techniques. Quantitative data will be analyzed using regression analysis while Qualitative data will be analyzed using content analysis. IBM Software Package for Social Sciences (SPSS) Version 20.0 will be used in quantitative data analysis. The study found out that positive cultural change, effective structure change, efficient information technology, and effective organizational resources influenced improvement of competitive advantage moderately. It also found out that Business process Re-engineering (BPR) ensured improvement in Productivity. The study recommends that St Johns Ambulance should; improve the process and organizational alignment towards the customer; ensure case for change in culture; effective investment in information technology; ensure effective process management geared towards direct cost reduction or productivity improvement; implementing BPR alone and just supplementing by other improvement techniques such as TQM, TPM, kaizen among others.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

According to St John Ambulance Kenya [SJAK] (2012), St. John Ambulance Kenya was founded in Kenya as St. John Kenya as a charitable organization, with the objective of first aid giving, training, emergency response and humanitarian assistance of the most vulnerable people in the society. Although it was semi autonomous organizations that form the worldwide order of St. John, St. John Kenya was established by an act of parliament in the Cap 259 of the laws of Kenya. Being the only organization providing these unique services in Kenya, St. John Kenya was set up within the Kenya Police (in 1925 and Kenya railways (then East African Railways). This was as to allow St. John Kenya to operate countrywide, since Kenya police and the Kenya railways were the only government bodies present in many parts of the country and that dealt with large populations prone to accidents at that time. In fact, this was a place to St. John Kenya, who would provide then service, even at the grassroots level.

SJAK (2012) shows that after its establishment, the then St. John Kenya became useful in giving first aid training to the Kenya railway and Kenya police, responding to accidents which occurred within these institutions. In deed, the organization started operating as an entity of the Kenya police and the Kenya railways. However, the organization detached itself from these institutions in 1953 and stood on its own, although it worked hand in hand with these institutions. St. John Kenya was gained ground in service delivery to that point on 24th December 1964; it treated more than 1,000 casualties. In the same year, 1964, St John had qualified 2,476 people in the final first aid examination; qualified 1,466 people in preliminary courses; and the ambulance service had handled a record 800 emergency cases to hospital.

With this trend, St. John Ambulance has been able to secure its good name and expound its activities, acquiring major success. The major activities of St. John Ambulance are: first aid training; home based care training; peer education training; ambulance services;

public duties; sale of first aid kits, manuals and uniform; Voluntary counseling and Testing (VCT) services; and medical camps. The provisions of these service is guided by their vision which is *".. to be at the heart of the nation we serve as volunteers in the provision of a continuous community service ensuring every household has access to a trained first aider, a world class emergency response and is empowered to care for their health needs*". St. John Ambulance is also supposed to achieve its mission, " *to be the leading organization of volunteers with our members and supporters providing first aid, essential emergency services, increasing capacity to save lives and ensuring the provision of healthcare in communities*". Some core values of this organization include; professional and quality service; and transparent and accountable service provision (SJAK, 2012).

Although St John Ambulance has been the leading organizations in Kenya in terms of first aid giving, training, emergency response and humanitarian assistance of the most vulnerable people in the society, is losing grip to new comers. The competition, in this service delivery area, is becoming stiff, as newcomers are bringing on board more innovative ideas and classic service delivery methods. As St .John Ambulance struggles to acquire a strategic position in the market, by using traditional methods, it competitors are enjoying the lion's share, through the uses; state of art equipment; efficient service delivery mechanisms and modern technology. St John Ambulance would only be able to reposition itself and gain a competitive advantage through a business process re-engineering (Aregbeyen, 2011).

Goksoy, Ozsoy and Vayvay (2012) posit that business process reengineering (BPR) has become increasingly important in recent years. Customers now have the choice of different product and service providers, to provide them with the same core product or service that they want. Companies have been forced to reengineering their business processes to stay competitive because customers are demanding better products and services. Improving and redesigning business processes is paramount for any business to stay competitive (Groznik & Maslaric, 2010). The purpose of BPR is to ensure process improvement, cost reduction customer satisfaction, and quality.

Goksoy *et al* (2012) were categorical that any failing and even successful organization embraced BRP, which allowed such organizations to re-invent themselves. by so doing, these organizations would achieve performance improvements and position themselves in a strategic position in their markets. Once organizations adopt BPR, they pass through reinventing processes, abolishing the traditional processes and rely on imaginative ways of having work done. Such organizations design completely and radically new processes (Hindle, 2008). Adeyemi and Aremu (2008) had earlier insisted that business process reengineering was a very useful weapon for any corporate organisations that was seeking for improvement in their organizational performance. They clarified that any organisation intending to achieve cost leadership strategy in its operating environment would only succeed on adoption of BRP. These sentiments were echoed by Goksoy *et al* (2012) who indicated that BPR has come up as a solution for organizations to improve their performances (Gouranourimi, 2012). They said that adopt of BRP is an assurance of higher quality product/services at lower cost. It also assures of larger added value and faster response time; elevate their efficiencies and gaining a competitive advantage in the environment the organization is operating in (Aregbeyen, 2011).

Studies, journals and theories have shown that the success of BPR is pegged on; positive cultural change; effective structure change, efficient information technology, and effective resources. Goksoy *et al* (2012) the organizational culture plays a central role decision making. Adoption of BRP would therefore require a positive cultural change, which would cause rudimental shifts to ensuring higher productivity and greater employee satisfaction. Goksoy *et al* (2012) indicated that flatter organizational hierarchies or broader spans of control in organizations are effective in BPR. By this way, employees involved in the process become decision makers through greater empowerment and consequently taking responsibility for the functional and operational procedure of the process.

Further, Goksoy *et al* (2012) indicated that effective structural changes facilitate successful process reengineering. The most effective changes is in functional tasks organsation. They advised for group-based teams, which perform better as they integrate

cross-functional skills in single work units. In fact Teams provide opportunities for small talk, development of friendships, social interaction and empathic reactions from other employees.

Magutu *et al* (2010) established that use efficient Information Technology (IT), highly facilitate effective organization redesign through BPR. This was stressed by Further, Goksoy *et al* (2012), who showed that IT was a key initiator, facilitator, and enabler of change. It was evidently shown that IT helped in making the changes promoted by reengineering

The last indicator and a success factor of BRP is use of effective resources as portrayed by Goksoy *et al* (2012). The resource vital in ensuring successful BRP include; skilled staff, an emphasis on quality management, and recognition of the value of organizational learning. This is to say that failures in BRP are primarily dues to; limited resources, limited managerial skills and short term strategic planning. People skills are important in re-engineering success. However, limited people skills, particularly poor IT understanding, also restrict success. Managerial skills are often limited and may not provide support for radical process change.

Borrowing from Gouranourimi (2012), it is clear that for St. John Ambulance to achieve competitive success, it must possess a competitive advantage in the form of either lower costs or differentiated products that command premium prices. To sustain advantage, it must achieve more sophisticated competitive advantages over time, through providing high quality-products and services or producing more efficiently. This translates directly into productivity growth and is a product of BRP.

1.2 Problem Statement

According to Muriuki (2010), the escalating health care cost are compelling healthcare service providers to continuously seeking ways to stay competitive and provide quality service to the customers. Healthcare industry has traditionally emphasized on breakthroughs in operating procedures and technology in the bid to stay competitive.

Surprisingly, St John Ambulance has remained static in service delivery, using old ways of doing thing as her competitors are re-engineering their processes (SJAK, 2012). This status of affairs has rendered St. John Ambulance less competitive to the extent that it is copying what newcomers are doing. In fact St. John Ambulance is losing business in Kenya and may be rendered redundant when no action is taken to correct the situation. It risks coming down on its knees although it was the first organization to start these services in Kenya.

Although many studies on BRP and competitive advantage have been conducted globally (Gouranourimi, 2012; Goksoy *et al*, 2012), and locally (Magutu *et al* (2010)), none of these studies addressed the positive cultural change; effective structure change, efficient information technology, and effective resources as factors determining the improvement of competitive advantage at St John Ambulance. In fact there is scanty information on business process re-engineering as strategy to improve competitive advantage at St John Ambulance, Kenya. No research or study has been done on the employment of BPR at St John Ambulance to improve its competitive advantage in the industry. It is against this background that this study attempts to analyze business process re-engineering as strategy to improve competitive advantage at St John Ambulance, Kenya as compared to other ambulance service providers in Kenya. The present study attempted to understand the factors that could explain the improvement of competitive advantage in ambulance service provision, and more specifically St. John Ambulance, Kenya, with a view of correcting the situation at SJAK for socio-economic development.

1.3 Objectives of the Study

1.3.1 Main Objective

The main objective of the study was to establish effects of business process re-engineering on competitive advantage of St John Ambulance in Nairobi.

1.3.2 Specific Objectives

Specifically the study was guided by the following objectives;

1. To explore the effects of positive cultural change on competitive advantage of St John Ambulance in Nairobi, Kenya.
2. To find the effects of effective structure change on competitive advantage of St John Ambulance in Nairobi, Kenya.
3. To establish the impact of efficient information technology on competitive advantage of St John Ambulance in Nairobi, Kenya.
4. To find out the effects of effective resources on competitive advantage of St John Ambulance in Nairobi, Kenya.

1.4 Research Questions

1. What are the effects of positive cultural change on competitive advantage of St John Ambulance in Nairobi, Kenya?
2. What are the effects of effective structure change on competitive advantage of St John Ambulance in Nairobi, Kenya?
3. What is the impact of efficient information technology on competitive advantage of St John Ambulance in Nairobi, Kenya?
4. What are the effects of effective resources on competitive advantage of St John Ambulance in Nairobi, Kenya?

1.5 Significance of the Study

The information acquired from this study would be useful to policy makers both in the government and health service providers, especially in strengthening policy considerations in delivery of ambulance health services. Such policy improvements might be handy in enhancing the guidelines on how to improve the efficiency and effectiveness of ambulance service providers. The study would be beneficial to St. John Ambulance, in

which case ambulance services at the firm will be vibrant and on the right track. St. John Ambulance would be able on its way to achievement of its goals, mission and visions. It would be operating within its core values. The Kenyan public would gain by acquiring ambulance and other related services efficiently, effectively, and reliably. Further, the study contributed to the existing body of knowledge in the field ambulance health services, making the study useful to scholars and academicians. Finally, the study was an eye opener, opening opportunities for further research in the area ambulance health services in Kenya making the study useful to researchers.

1.6 Scope of the Study

The aim of this study was to analyze on business process re-engineering as strategy to improve competitive advantage at St John Ambulance, Kenya. The study was conducted in Nairobi, which is the headquarters of all Ambulance service providers. The study chose Nairobi, Kenya because as the focus of the study owing to its diversity in the type of services provided. All ambulance services are offered in Nairobi. Additionally, it houses the head offices that administer ambulance health services for Ambulance. The study collected data from board of director, and managerial staff, and employees.

1.7 Limitations of the Study

This study was limited in some ways; first, this being a survey research it relied primarily not on observation but report of behavior. Some respondents might have felt that they were being disturbed and therefore refuse to participate. To overcome this limitation, the study first conducted an orientation before the administration of the questionnaire to the respondents to create a free environment. Secondly, the respondents might have opted to avoid giving appropriate responses to the questions which would have been a form of resistance. The researcher therefore chose to tell the respondents the truth about the research to allay any fears that would have resulted in such resistance

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CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Literature review is intended to acquaint the reader with theoretical framework and empirical review of past studies carried out by other researchers in relevant areas. This part of the study will deal much on the theoretical and empirical review of competitive advantage and BPR, highlighting the past research and authors own findings. It will also identify past research gaps that have not been tackled so that a solution for the same may be sought. It will also help shed some light on important areas that have been ignored by previous researchers in competitive advantage and BPR.

2.2 Theoretical Review

The study identified a number of theories which would explain the competitive advantage of a firm, and more specifically as consequence of Business process re-engineering. The theories found relevant to this study include the Strategic Management Theory, Theories of organisational culture, and Structuration theory.

2.2.1 Strategic Management Theory

Strategic management theories are based on the Management Theory and draw their strengths from strategic management, which, according to David (2005), is a combination of strategy formulation, implementation and evaluation. David (2005) showed that strategic management endeavors in specifying an organization's objectives, developing policies and plans to achieve and attain these objectives, and allocating resources so as to implement the policies and plans. As regards these theories, David (2005) went on to say they stem from systems perspective, contingency approach and information technology approach. These theories include; profit-maximizing and competition-based theory, the resource-based theory, the survival-based theory, the human resource based theory, the

agency theory and the contingency theory. This study found the profit-maximizing and competition-based theory, the resource-based theory as the most relevant.

Raduan *et al* (2009) exposed the profit-maximizing and competition-based theory as theory based on the main objective of a business organization, to maximize long term profit and development of sustainable competitive advantage over competitive rivals in the external market place. This exposition shows that theory enhances the Porters (1981) model of competitive advantage. This theory views the positioning of the organization with respect to external market and considers this as the critical factor for attaining and sustaining competitive advantage. This study found the profit-maximizing and competition-based theory a very useful theory in explaining the competitive advantage. The theory helped in assessing competition within ambulance service industry. In using theory, it was easy to identify the indicators of competitive advantage as; Cost Improvement, Improvement of customer Service, Improvement in Quality, and Improvement in Productivity. Further, the theory gave information that would help to relate the BPR to competitive advantage of St. John Ambulance.

Another strategic management theory useful to this study is the resource-based theory, also known as Resource-Based View (RBV), which has its roots from the principle that the source of firms competitive advantage lies in their internal resources (Ainuddin *et al.*, 2007). As the profit-maximizing and competition-based theory concentrated positioning in the external environment, this theory focuses on internal resources. The theory indicates that, even as the competitive advantage requires evaluation of environmental opportunities and threats, it depends on the unique resources and capabilities that a firm possesses. This shows that the competitive advantage is generated by the resources that the firm has in its possession. This theory was found to be very beneficial to the study in that it gave insights on the requirements to remain competitive.

The RBV theory showed that the firm should effectively apply the resource available to enhance its performance and have a competitive in the environment it operates in. according to the theory, the firms' competitive advantage and its superior performance are fundamentally driven the attributes of the firm's resources and capabilities (Barney,

2007; Liao and Hu, 2007; King, 2007). According to the theory, organization structure, culture, resources and, technology transfer are significant sources of competitive advantage (Ainuddin *et al.*, 2007). The theory helped in establishing the internal resources that St. John Ambulance would need to embark on and strengthen so that it would have competitive advantage. Using the principles of the theory, it is now possible to relate the improvement of competitive advantage to its internal resources, positive cultural change; effective structure change; efficient information technology; and effective resources.

2.2.2 Theories of Organisational Culture

The study adopted the Schein's theory, which lies in system theory and shows that an integrated organisational culture reduces the uncertainty and ambiguity experienced in an environment and maintains an organisation's operating capacity (Schein 1992, Weick 1995). Weick (1995) went on to say that the since organisational culture is a dynamic phenomenon, the firm should examine the continual and collective reality-building process that takes place there in. Weick (1995) also said that organization should deliberate the meaning of various, where a common view should be formed based on information obtained. Such an action would create opportunities and boundaries again and again. The theory insists that "in a strong culture all workers must, adopt the manager's values as their own underlying assumptions and act according to them. The theory emphasizes on distinction between functions and units on the basis of the location of units and job description; distinction between genders and distinction according to years spent in the organization; professional distinction e.g. on the basis of educational background" (Parker 2000).

The theory on organisational culture helped to identify the position of culture on the improvement of competitive advantage. It actually exposed the culture at a determinant on competitive advantage, as it showed that culture should be dynamic to achieve firm's

performance. This was very useful in associating the culture with competitive advantage, and therefore regarding its as an independent variable.

2.2.3 Structuration Theory

Indeje and Zheng (2010) described the Structuration theory, which was advanced by Giddens (Giddens 1979 and 1984) as explaining the structuration as a social process that involves mutual interaction of human actors and structural features of the organization." *The structural properties of social systems exist only in so far as forms of social conduct are reproduced chronically across time and space. Behavior and structure are intertwined; people go through a socialization process and become dependent of the existing social structures, but at the same time social structures are being altered by their activities*". This is to say that the firm's structures are the medium of human activities as restrict behavior and create possibilities for human behavior. The theory attempts to expresses the organization structure and agency as mutually dependent (Indeje & Zheng, 2010). This study borrows heavily from this theory in regarding structure as an independent variable. The theory shows that the structure builds an avenue for the human resource, making it an essential resource in BRP. This would mean that the structure of St. John Ambulance influences the resources and hence the competitive advantages of that firm.

2.3 Empirical Review

Academician, scholars and researchers conducted studies on competitive advantage, business process re-engineering, globally, regionally, and locally. This study evaluated these studies and identified the most relevant ones. It reviewed those studies which provided sufficient information to back up this study. These studies were classified as; organization culture. Organization structure, information technology, and resources

2.3.1 Studies on Organization Culture

Sidikat and Ayanda (2008) conducted a study on impact assessment of business process reengineering on organisational performance in Nigeria banking and other financial institutions. The study purposed to assess the impact of reengineering on organizational performance and to uncover how business process reengineering can help organizations to effect innovative and strategic changes in the organisation. The study concluded that business process reengineering was useful weapon improvement of organizational performance in achieving cost leadership strategy. That why it recommended for reengineering process to remain a point focus to effectiveness and efficiency of a company. Although the study showed that BPR was a very important in improvement of a firm, it failed to link it to the competitive advantage. There was no clear impact of the factors of BPR on the improvement of competitive advantage of a firm, which is what this study will do. Although the study by Sidikat and Ayanda (2008) had critical information on BPR, it left a gap, by not showing the factors, which would influence the competitive advantage.

In another study on Goksoy *et al.* (2012) identified BPR as an effective management approach, leading to success of a firm. The study also identified factors that play a significant role in the success of BPR. It showed that if top management does not provide strong and consistent support in terms of capital, resources, or leadership the BPR becomes weak. The study established that reengineering effort should be directed to fulfill the needs and wants of customers in target markets and should be based on company's overall strategy.

Although the study showed that importance of BPR in a firm and identified the factors of BPR, which was very beneficial to this study, it failed to show how BPR influences the competitive advantage. The study failed to bring on board all the affected parties in the organization but instead considered employees, which limited the views obtained. This is the gap the study will fill. This study will collect information from both employees and management.

2.3.2 Studies on Organization Structure

A study Gouranourimi (2012) showed that Total Quality Management and BPR share a cross-functional relationship. As re-engineering seeks radical redesign and drastic improvement of processes, TQM emphasize incremental improvement in work processes, and outputs over an open-ended period of time. The study established that leadership was very important for effective BPR implementation. This study was very helpful in establishing the importance of BPR. Once BPR was related to TQm, it was clear that BPR determines the improvement of the firm. However, the study failed to link the BPR to competitive advantage, which is what this study will do.

Wen-Hsien *et al.* (2010) conducted a study on effects of implementing BRP on ERP where they established that successful ERP project involved business process change management. The study encouraged companies to adopt BPR to improve firm performance. The study said that companies should adjust organizational structure and business culture after BPR implementation. Furthermore, when system and business process are consistent, companies do not need to customize the software to match business process. According to the study, firms with no gap between system and business process will achieve better ERP system performances. In ERP implementation, it is important for companies to change the business process. The study said that companies should consider BPR during ERP system initiation. The study identified a positive relationship between BPR degree and ERP implementation performance.

Although the study by Wen-Hsien *et al.* (2010), related the structural change to BRP. It failed top show how BRP affects the competitive advantage, which is what this study will do.

Magutu *et al.* (2011) explain the possible reasons why a company would succeed to attain competitive advantage by implementing BPR. From the research findings, the study recommends that organizations seeking to undertake BPR initiatives should first

understand the need for changing the organization. They will then need to ensure that they adopt the key success factors for BPR implementation. This study did not emphasis much on the effects of BPR on competitive advantage, bur rather stressed on seeking to establish the factors of BPR. It helped this study to identify some of the factors of BRP. This study will fill the gap in the study by Magutu *et al.* (2011).

2.3.3 Studies on Information Technology

Locally, Magutu *et a.l* (2010) conducted a qualitative study on approaches to implementing BPR in an organization using Wrigley Company as the study organisation. The study recognized that to examine the organization structure when undertake BPR to maximum gains in the BPR implementation on its way to achieving operational competitive advantage. Specifically, the study intended to determine presence of improvement in the competitive advantage in terms of; cost management, customer service, quality and productivity. The study also sought to understand if competitive advantage was explained by the key success factors for BPR implementation. The study finding showed that a company would gain competitive advantage by implementing BPR. It was also established that it adopted the BPR practices that are critical for successful implementation. The study by Magutu *et al.* (2010) recommends that any organizations undertaking BPR initiatives must first understand the need for changing the organization and need to ensure that they adopt the key success factors for BPR implementation. They key success factors include IT, resources among others.

The study by Magutu *et al* (2010) was very beneficial to this study, it actually provide a very clear direction by directly relating BRP to competitive advantage and identifying the indicators of each. However, first, the the study was qualitative in nature and most of the factors that can empirically measured, which was gap that the study left. To confidently establish that competitive advantage is determined by BRP, research need to be done using quantitative, which is what this study will do. Secondly, the study focused on improvement on competitive advantage after implementation of BPR. The study failed to

link the factors and competitive advantage and test them for statistical significance. This study will test for statistical significance of these factors on competitive advantage.

2.3.4 Studies on Resources

Li-Jen, Margi and Phillip (2011) conducted a study on the main contributing factors to the success of BPR on Eight Taiwanese companies. This study considered culture, structure, technology and resource and the measures of BPR. It explored issues contributing to, or impeding, successful process re-engineering in small firms. The found that BPR success was energized by innovation, employee empowerment, top management commitment and strategic direction and is dependent upon customer relations IS involvement and financial resources. The study clearly showed that competitive advantage of small SMEs and MMEs was determined by the factors of BPR. This was very useful to this study in establishment of determinants of competitive advantage. A limitation with the study was its failure to test the relationship for statistical significance, which is what this study will.

2.4 Conceptual Framework

The study proposes that Business Re-Engineering Process would significantly influence improvement of competitive advantage at St John Ambulance positively. It will attempt to asses whether positive cultural change; effective structure change, efficient information technology, and effective resources enhance the improvement of competitive advantage at St John Ambulance

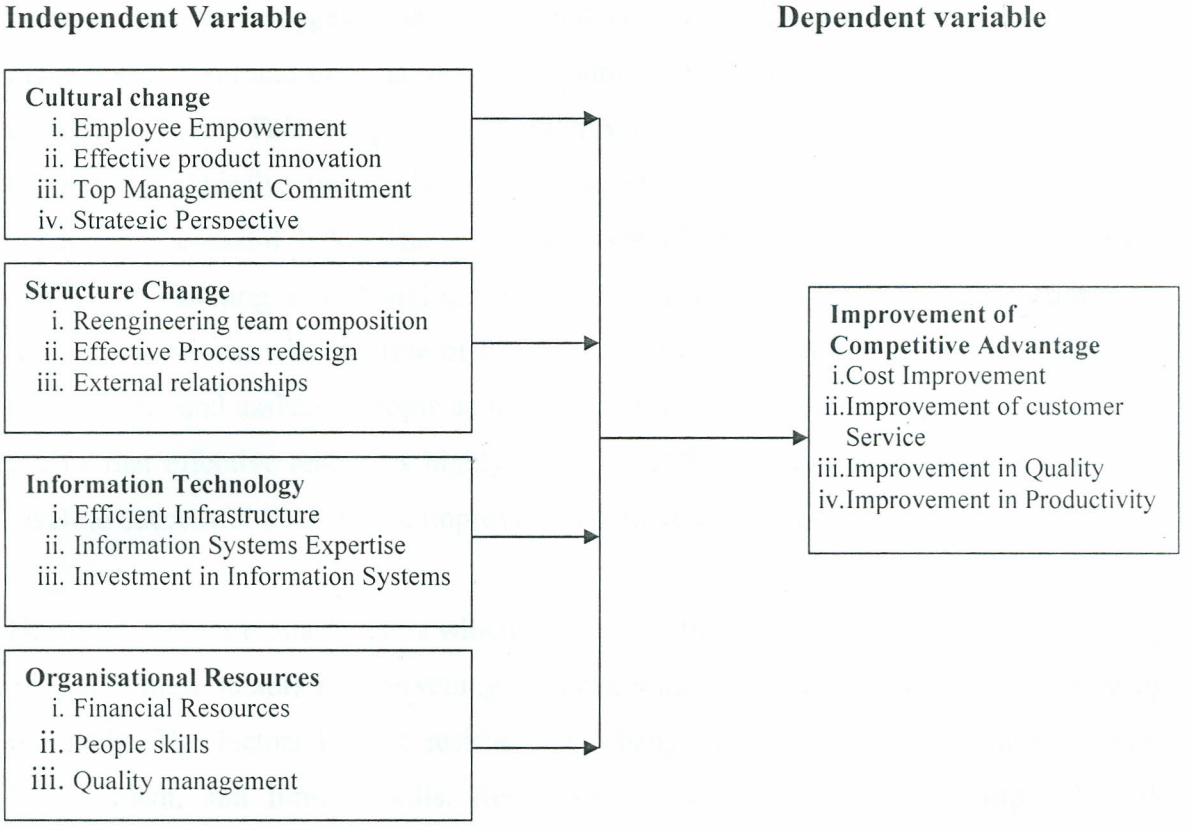

Figure 2.1 : Conceptual Framework
Source: Researcher (2012)

2.4.1 Interpretation of Variables

The study first proposes that success in BPR at St. John Ambulance would be enhanced by positive cultural change. BPR does not work without profound cultural change as it emphasizes leadership, teamwork, empowerment, entrepreneurship, and risk-taking. At St. John Ambulance, employees are often given operational responsibility decision-making is often dominated by the Board of Directors, and executive managers, which may hinder re-engineering. There must change in organizational culture, geared to enhance BPR to ensure competitive advantage.

Secondly, the study proposes that successful BRP in influenced by effective structure change. The study suggests that a structural change, which avoids bureaucracy, would make for efficient and informal internal communication and respond readily to changing customers' needs. This will position St. John Ambulance for re-engineering with its focus on process. Thirdly, the study claims that efficient information technology highly enhances, successful BPR. The study proposes IT infrastructure can be a significant enabler of planning and changing processes for BPR. Most re-engineering efforts are technology-driven, with the role of IT changing from producing data to integrating new technologies and assisting people as independent information gatherers. Lastly, the study claims that effective resources highly influence BPR availability of effective resources result to successful BRP, hence improve competitive advantage.

However, there are other factors which may hinder the completive advantage. This study considers these factors as intervening variable, which will be successfully controlled by the study. The factors include resistance to change, Limited Financial ability, Change Management, and limited skills. Resistance to change is one of the most difficult challenges of BPR implementation. Limited capital financial resources are a major constraint on BPR efforts. Change is not an event but rather a continuous process concerned with leadership with open, honest and frequent communication. The members of the reengineering team can critically determine the success or failure of reengineering efforts. The team should be multi-skilled and combines experts from various functions of the organization.

2.5 Summary and Research gaps

The gaps left by previous studies such as by Sidikat and Ayanda (2008), Magutu *et al* (2010) , Li-Jen, Margi and Phillip (2011) , Goksoy *et al* (2012) , and Gouranourimi (2012), underscore the need for further research. This study, is therefore, set to fill the gap that currently exists in this area considering the fact that business process re-engineering is a strategy to improve competitive advantage.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter presents the research design, target population, sampling procedure, research data collection instruments and procedures, how data was analyzed, and ethical considerations. It explains why specific techniques and methods were used in design, analysis and data collection.

3.2 Research Design

This study used a descriptive survey method in soliciting information on business process re-engineering as strategy to improve competitive advantage at St John Ambulance, Kenya. Descriptive survey design was used since it provided insights into the research problem by describing the variables of interest. It was used for defining, estimating, predicting and examining associative relationships. This helped in providing useful and accurate information to answer the questions based on who, what, when, and how (Kombo &Tromp, 2006). Historical research was also used to relate events that had occurred in the past to current events. This enabled the researcher to relate the research problem to the missing gaps of other research work's which had been covered and also showed what the other researchers had over looked possibly due to time differences or economics and social factors.

3.3 Target Population

The target population comprised of the 68 board of directors, and executive managers, and staff of St. John Ambulance in Kenya and Red Cross Society and AMREF, all situated in Nairobi. The classification of target population is captured in Table 3.1.

Table 3.1 : Classification of Target Population

Classification	Total	Percent
Board of Director	11	16.18%
Senior Management	7	10.29%
Operational Staff	50	73.53%
Total	68	100.00%

Source: SJAK (2012)

3.4 Sample Design

The sample frame was 68 subjects from the board of directors, managers, and staff of St. John Ambulance, Kenya. Since the target population was small and readily reachable, the study was used census to obtain the sample population. All the 68 subjects of the study participated in study data collection.

3.5 Data Collection

3.5.1 Data Collection Instrument.

Data was collected from both primary and secondary sources. Primary data was collected using a semi structured questionnaire which had both open and closed ended questions. The structured questions are usually standardized to allow the respondents to reply to the same questions in a defined manner and the unstructured questions gives the respondents complete freedom of response and encourage them to offer explanation. This saved time and did not disturb the respondents, who could fill the answers at his/her convenience. The researcher provided guidance and clarifications on how to answer the questions (Kombo & Tromp, 2006). The researcher conducted interview to confirm and clarify issues arising during data collection (McNamara, 2009)

Secondary data was collected from the three Ambulance service providers' manuals and documents. The main source of secondary information was published guides, journals and information from internal sources.

This data is operationalised in table 3.3.

Table 3.3: Operational Framework

Orientation	Variable	Indicators	Measured in Questionnaire in Question	Indicative questions and queries
Dependent Variable	Improvement of Competitive Advantage	Cost Improvement Improvement of customer Service Improvement in Quality Improvement in Productivity		Would BPR ensure cost improvement? Will BRP enhance improved customer Service? Does BPR improve service quality? Is productivity improved or achieved by use of BRP?
Independent Variables	Positive Cultural Change	Employee Empowerment		Is Employee Empowerment as determinant of competitive advantage?
		Effective product innovation		Does Effective product innovation ensure competitive advantage?
		Top Management Commitment		Will Top Management Commitment enhance competitive advantage?
		Strategic Perspective		Is Strategic Perspective a determinant of competitive advantage?
	Effective Structure Change	Reengineering team composition		Will Reengineering team composition influence competitive advantage?
		Effective Process redesign		Would Effective Process redesign influence competitive advantage?
		External relationships		External relationships determinants of competitive advantage?
	Efficient Information Technology	Efficient Infrastructure		Does Efficient Infrastructure enhance competitive advantage?
		Information Systems Expertise		Information Systems Expertise enhances competitive advantage
		Investment in Information Systems		Investment in Information Systems enhances competitive advantage
	Effective Resources	Financial Resources		Do Financial Resources influence competitive advantage?
		People skills		Do People skills influence competitive advantage?
		Quality management		Does Quality management influence competitive advantage?

Source: Researcher (2012)

3.5.2 Data Collection Procedure

The researcher first obtained a letter from Kenyatta University introducing her to collect data. To effectively collect the data, the study employed the services a Research Assistant (RA) to help collect data. The RA was adequately trained to understand the questionnaire before commencement of the data collection. Before the data was collected, the study will first conducted a pilot test on the research tool where data for testing was collected from respondents who were not be allowed to participate in the data collection for the study. During data collection, the researcher first sought an appointment with the managers and requested them to allow for the administration of the questionnaire to the Respondents in their stations. Arrangements were then be made on when and how to conduct the data collection. When collecting primary data, the researcher assisted the respondents to fill the questionnaire and at the end they confirmed any issues arising out of the data supplied.

3.5.3 Reliability and Validity Testing

The study conducted a pilot test of the study instrument before administering it .The pilot study was conduct on ten (10) staff who were not participate in the data collection. Pilot testing was conducted in an attempt to test the reliability and practicability of the research tool. The research tool was administered to the respondents who were allowed two days to respond. The data was tested for reliability to establish issues such as data sources, methods of data collection, time of collection, presence of any biasness and the level of accuracy. The test for reliability established the extent to which results were consistent over time. The researcher improved the instrument by reviewing or deleting inconsistent items from the instrument. To test for reliability, the study used the internal consistency technique.

Validity of instrument which is the accuracy and meaningfulness of inferences was measured using content validity test. Content validity measures the degree to which data collected using a particular instrument represents a specific domain of indicators or content of particular concept. The assessment of content validity of a measure was carried by two professional

experts. This study assessed the content validity by using experts from the ambulance health care and Strategic Management Consultant. The ambulance health care determined whether the sets of items can accurately measure the process re-engineering as strategy to improve competitive advantage at St John Ambulance, Kenya. The Strategic Management Consultant assessed the tools to establish what concept the instrument was trying to measure.

3.6 Data Analysis

Collected data was checked for errors of omission and commission. The data collected was classified, measured, analyzed and interpreted to establish how it determines process re-engineering as strategy to improve competitive advantage at St John Ambulance, Kenya. The data collected was analyzed, with respect to the study objectives, using both quantitative and content analysis techniques. Quantitative analysis was carried out first for each variable to describe that variable with respect to improvement of competitive advantage. This being the first step of data analysis, provided a convenient way to producing the most useful statistics. This analysis was achieved using descriptive statistics which is the assessment of central tendency (convergence), and of dispersion (divergence). The data was presented in form of tables and charts (Aneshensel, 2004).

Next, the study attempted to establish whether the independent variables (factors which determine BPR) predicted the dependent variable (improvement of competitive advantage). Regression analysis was used to establish the relationship between the independent variables (predictor) and dependent variable (response) and measured the strength of the relationship based on the regression model. The model below was used to estimate dependent variable in terms of independent variables.

$$CA = \beta_0 + \beta_1 CC + \beta_2 SC + \beta_3 IT + \beta_4 RE + \varepsilon$$

Where

β_0 . is a constant, which is the value of dependent variable when all the independent variables are 0

β_1 - β_4 Regression coefficients of independent Variables or change induced by CC, SC, IT, and RE

ε - Error of prediction

CA = Competitive Advantage

CC = Positive Cultural Change

SC = Effective Structure Change

IT = Efficient Information Technology

RE = Effective Resources

The study used means of means to obtain the values for competitive advantage, positive cultural change, effective structure change, efficient information technology, and effective resources. The values obtained for positive cultural change, effective structure change, efficient information technology, and effective resource were regressed against the value for Competitive Advantage using multiple regression. This attempted to estimate a model that explained competitive advantage in terms of positive cultural change, effective structure change, efficient information technology, and effective resource.

Quantitative analysis was done out using Software Package for Social Science (SPSS) version 20.0. Qualitative analysis on open-ended questions was achieved through content analysis.

3.7 Ethical Considerations

Before data collection commences, the researcher obtained authority to collect the data from the appropriate authorities. First, she obtained a letter from Kenyatta University allowing her to carry out the research for Master Degree course. This opened a way for her to go out and collect data required for the research. Lastly, an authority was sought from the St. John Ambulance and other ambulance service providers to collect data from the organization. The study ensured confidentiality and security of data gathered from the respondents. In this regard, all the data collected was kept in safe custody. The respondents were not required to write their names on the questionnaire to avoid exposing who gave what information. A letter of request to participate in the study was addressed to the respondents. This was a show of

courtesy to the respondents as well as a mechanism of ensuring informed consent to participate in the study.

CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter contains an analysis, presentation and interpretation of the results obtained from the collected data. These results are represented pictorially, using of tables, charts, bar graphs for ease of understanding. They are then interpreted in form of narrative based on the research objectives. These results are from data analysed using quantitative analysis (originating from quantitative data) and content Analysis (qualitative data). The chapter also contains the discussions on the results based on literature reviewed earlier in the study.

4.2 Response Rate

The entire sample population, except two (2) respondents (one board director and one operative staff) responded to the study, by supplying answers to the researcher. All those who responded answered all the questions in the questionnaire quite well without leaving any questions unanswered. The answers were given by the right source and were accurate. The researcher highly appreciated this response and was very thankful to the subjects. In addition, the subjects responded positively to the interviews conducted to verify the questionnaire. Although the pilot testing took three days, the entire data collection exercise took one week. The response rate is captured in Figure 4.1.

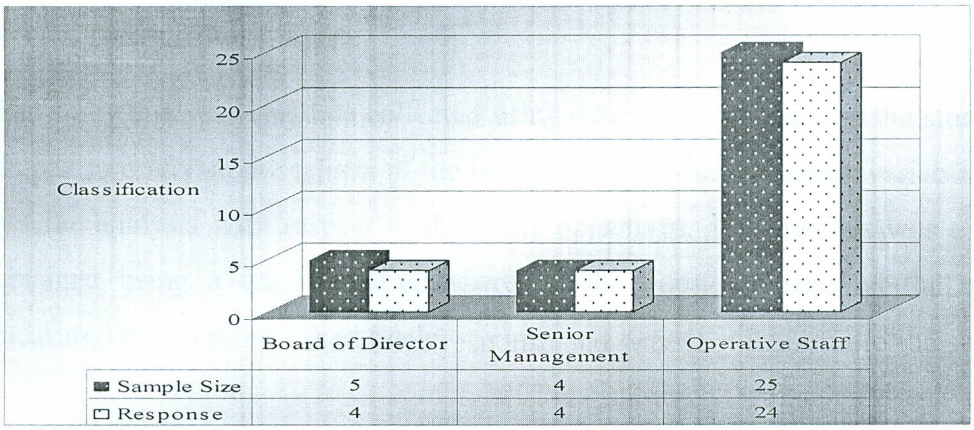

Figure 4.1 Response rate

Source: Research Data (2013)

A further analysis by response ate shows that 94.12% of the sample population responded to the study leaving a simple 5.88% having not responded as shown in figure 4.2

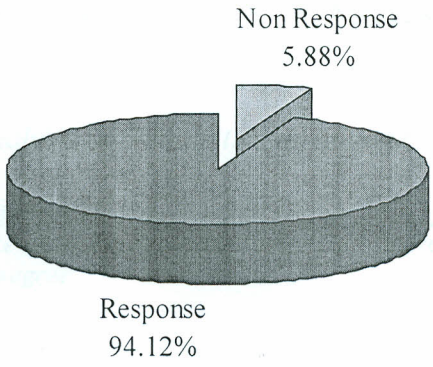

Figure 4.2 Analysis by Total Response rate

Source: Research Data (2013)

According to Mugenda and Mugenda (2003), a 50% response rate is adequate, 60% good and above 70% rated very good. Based on this assertion the response rate for this study can be said to be very good at 94.12%, which was high above 70%. Although the results were interpreted to indicate a very good response rate, a failure of 5.88% to respond might have been explained by some of the respondents being out of office by the time the study was being conducted.

4.3 Descriptive Results

The study analysed the data collected using descriptive to describe the study variables, which helped to establish the effects of the independent on the dependent variable. The study carried out the analysis with respect to the study objectives. The analysis was absed on the results obtained using a questionnaire, where all the questions used in the questionnaire were measured on a 5 point Likert Scale.

4.3.1 Competitive Advantage

The results to measure the competitive advantage were measured on a 5-point likert scale (0: Strongly disagree, 1: Agree, 2: Neutral, 3: Agree, 4: Strongly Agree).

Table 4.1 Analysis of competitive advantage

Competitive Advantage Indicator	*Frequency*	*Percent*
Business process Re-engineering will enhance Cost Improvement		
Strongly Disagree	*0*	*0.00*
Disagree	*0*	*0.00*
Neither	*2*	*6.25*
Agree	*17*	*53.12*
Strongly Agree	*13*	*40.63*
Improvement of customer Service will be ensured by Business process Re-engineering		
Strongly Disagree	*0*	*0.00*
Disagree	*1*	*3.12*
Neither	*3*	*9.38*
Agree	*12*	*37.50*
Strongly Agree	*16*	*50.00*
Adoption of Business process Re-engineering will lead to Improvement in Quality		
Strongly Disagree	*1*	*3.12*
Disagree	*1*	*3.12*
Neither	*1*	*3.12*
Agree	*14*	*43.76*
Strongly Agree	*15*	*46.88*
Business process Re-engineering will ensure Improvement in Productivity		
Strongly Disagree	*0*	*0.00*
Disagree	*0*	*0.00*
Neither	*0*	*0.00*
Agree	*13*	*40.62*
Strongly Agree	*19*	*59.38*

Source: Research Data (2013)

From the results in Table 4.1, Most of the respondents, who formed 53.12%, showed that Business Process Re-engineering would enhance Cost Improvement at their work place. They were closely followed by those who strongly believed that Business process Re-engineering would enhance Cost Improvement, who formed 40.63%. Six point two five (6.25)% of the

respondents were sure whether Business process Re-engineering would enhance Cost Improvement at their work place or not.

The results further a majority of 50.00% strongly agreeing that improvement of customer service would have ensured by Business process Re-engineering at their work place. They were followed by those who just showed that improvement of customer service would have ensured by Business process Re-engineering at their work places. This group formed 37.50% of the total response. in these results 9.38% showed that they were not sure whether improvement of customer service would have ensured by Business process Re-engineering at their work places as 3.12% showed that improvement of customer service would not have ensured by Business process Re-engineering at their work places.

From these results, 46.88% of the total response showed that they were strongly convinced that adoption of Business process Re-engineering would have lead to improvement in quality at their places of work. They closely followed by those were just convinced that adoption of business process Re-engineering would just lead to Improvement in Quality at work place, who formed 43.76% of the total response. Those who were neutral formed three point one two (3.12%). They were the same percentage as those who were not convinced that Adoption of Business process Re-engineering would lead to Improvement in Quality at work places. The same number of respondents showed that adoption of Business process Re-engineering would never lead to Improvement in Quality at work places.

A majority of 59.38% of the respondents showed that they strongly believed that Business process Re-engineering would have ensured improvement in Productivity at their work place. The remaining 40.62% showed that they were of the opinion that Business process Re-engineering would ensure Improvement in Productivity at their work places. None of the respondents were of any other opinion.

4.3.2 Effects of Cultural Change

The results to measure the effects of Cultural Change were measured on a 5-point likert scale (0: Not at All, 1: Low, 2: Moderate, 3: High, 4: Very High).

Table 4.2 Analysis on effects of Cultural Change

Cultural Change Indicator	*Frequency*	*Percent*
Employee Empowerment		
Not at All	*2*	*6.25*
Low	*1*	*3.12*
Moderate	*10*	*31.25*
High	*11*	*34.38*
Very High	*8*	*25.00*
Effective product innovation		
Not at All	*0*	*0.00*
Low	*2*	*6.25*
Moderate	*9*	*28.12*
High	*14*	*43.75*
Very High	*7*	*21.88*
Top Management Commitment		
Not at All	*0*	*0.00*
Low	*0*	*0.00*
Moderate	*9*	*28.12*
High	*10*	*31.25*
Very High	*13*	*40.63*
Strategic Perspective		
Not at All	*2*	*6.24*
Low	*0*	*0.00*
Moderate	*4*	*12.50*
High	*11*	*34.38*
Very High	*15*	*46.88*

Source: Research Data (2013)

The results in Table 4.2 show a majority of 34.48% indicating that employee empowerment highly influenced on improvement of competitive advantage as 31.25% showed that it moderately influenced the improvement of competitive advantage. It can also be observed that 25.00% showed that employee empowerment very highly influenced the improvement of competitive advantage. However, 6.25% showed that employee empowerment did not

influence on improvement of competitive advantage at all as 3.12% showed that it influenced improvement of competitive advantage lowly.

Most of the respondents, who formed 43.75% showed that effective product innovation influenced improvement of competitive advantage highly. Those who indicated that influenced improvement of competitive advantage moderately formed 28.12%. 21.88% showed that influenced improvement of competitive advantage very highly as 6.25% showed that influenced improvement of competitive advantage lowly.

As a majority of 40.63% of the respondents indicated that top Management Commitment very highly influenced improvement of competitive advantage, 31.25%, who were the next, showed that it highly influenced improvement of competitive advantage. The least showed that top Management Commitment moderately influenced improvement of competitive advantage. None were of a negative opinion.

From the results in Table 4.2, most of the respondents, who formed 46.88%, indicated that strategic perspective very highly influenced improvement of competitive advantage. The same results show 34.38% indicating that strategic perspective highly influenced improvement of competitive advantage as 6.24% showed that strategic perspective did not in any way influence improvement of competitive advantage. However, 12.50% showed that strategic perspective influenced improvement of competitive advantage moderately.

4.3.3 Effects of Structure Change

The results to measure the effects of Structure Change were measured on a 5-point likert scale (0: Not at All, 1: Low, 2: Moderate, 3: High, 4: Very High).

Table 4.3 Analysis by effects of Structure Change

Structure Change Indicator	*Frequency*	*Percent*
Reengineering team composition		
Not at All	*1*	*3.12*
Low	*0*	*0.00*
Moderate	*7*	*21.88*
High	*10*	*31.25*
Very High	*14*	*43.75*
Effective Process redesign		
Not at All	*0*	*0.00*
Low	*0*	*0.00*
Moderate	*0*	*0.00*
High	*12*	*37.50*
Very High	*20*	*62.50*
External relationships		
Not at All	*2*	*6.24*
Low	*4*	*12.50*
Moderate	*7*	*21.88*
High	*14*	*43.75*
Very High	*5*	*15.63*

Source: Research Data (2013)

From table 4.3, a majority of 43.75% of the total respondents indicated that reengineering team composition very highly influenced improvement of competitive advantage. They were followed by those who showed that reengineering team composition highly influenced improvement of competitive advantage, who made up 31.25% of the total response. As 21.88% showed that reengineering team composition influenced improvement of competitive advantage moderately, 3.12% showed that reengineering team composition did not have any influence on improvement of competitive advantage

As regards effective Process redesign, 62/50% of the total response, who were the majority, indicated that it very highly influenced improvement of competitive advantage. The rest, 37.50% of the total respondents, showed that effective Process redesign highly influenced improvement of competitive advantage. None of the respondents were of a different opinion.

The results in table 4.3 show most of the respondents, who formed 43.75%, indicating that external relationships highly influenced improvement of competitive advantage as 21.88%

showed that it moderately influenced improvement of competitive advantage. From the same results, 15.63% showed that external relationships influenced improvement of competitive advantage very highly. However, 6.24% showed external relationships did not influence improvement of competitive advantage at all.

4.3.4 Impact of Information Technology

The results to measure the impact of Information Technology were measured on a 5-point likert scale (0: Not at All, 1: Low, 2: Moderate, 3: High, 4: Very High).

Table 4.4 Analysis on impact of Information Technology

Information Technology Indicator	*Frequency*	*Percent*
IT Infrastructure		
Not at All	*0*	*0.00*
Low	*0*	*0.00*
Moderate	*9*	*28.12*
High	*13*	*40.63*
Very High	*10*	*31.25*
Information Systems Expertise		
Not at All	*1*	*3.12*
Low	*2*	*6.25*
Moderate	*4*	*12.50*
High	*11*	*34.38*
Very High	*14*	*43.75*
Investment in Information Systems		
Not at All	*0*	*0.00*
Low	*0*	*0.00*
Moderate	*0*	*0.00*
High	*13*	*40.62*
Very High	*19*	*59.38*

Source: Research Data (2013)

As regards information technology, the results in Table 4.4 showed most of the respondents, who made up 40.63% of the total response, indicating that IT Infrastructure highly influenced improvement of competitive advantage. They were followed by those who showed that IT Infrastructure influenced improvement of competitive advantage very highly. Those formed 31.25% of the total response. However, 28.13% showed that IT Infrastructure influenced improvement of competitive advantage moderately.

From the results in table 4.4, a majority of 43/75% of the total response showed that information systems expertise influenced improvement of competitive advantage very highly. Those who showed information systems expertise highly influenced improvement of competitive advantage formed 34.38% of the total response. As 12.50% of the total response showed that information systems expertise influenced improvement of competitive advantage moderately, 6.25% showed that information systems expertise lowly influenced improvement of competitive advantage. However, 3.12% showed that
Information systems expertise never influenced improvement of competitive advantage at all.

A majority of 59.38% showed that investment in information systems influenced improvement of competitive advantage very highly as the remaining 40.62% showed that it highly influenced improvement of competitive advantage. The results indicate that none of the respondents had a different opinion from these.

4.3.5 Effects of Organizational Resources

The results to measure the effects of organizational resources were measured on a 5-point likert scale (0: Not at All, 1: Low, 2: Moderate, 3: High, 4: Very High).

Table 4.5 Analysis by effects of organizational resources

Resources Indicator		
Financial Resources		
Not at All	*0*	*0.00*
Low	*0*	*0.00*
Moderate	*2*	*6.25*
High	*12*	*37.50*
Very High	*18*	*56.25*
People skills		
Not at All	*0*	*0.00*
Low	*0*	*0.00*
Moderate	*3*	*9.38*
High	*13*	*40.62*
Very High	*16*	*50.00*
Quality management		
Not at All	*0*	*0.00*
Low	*0*	*0.00*
Moderate	*0*	*0.00*
High	*8*	*25.00*
Very High	*24*	*75.00*

Source: Research data (2013)

Table 4.5 results show most of the respondents, who made 56.25% of the total response indicated that financial resources influenced improvement of competitive advantage very highly. The same result show 37.50% of the total response indicated that financial resources highly influenced improvement of competitive advantage and 6.25% indicated that financial resources influenced improvement of competitive advantage moderately.

On people skills, it can be seen that 50.00% of the total response showed that they highly influenced improvement of competitive advantage from these results, 40.62% indicated that people influenced improvement of competitive advantage highly and 9.38% showed that it moderately influenced improvement of competitive advantage

As regards quality management, a majority of 75.00% showed that it very highly influenced improvement of competitive advantage. The remaining 25.00% of the total response showed that quality management highly influenced improvement of competitive advantage

4.4 Quantitative Analysis

4.4.1 Business process Re-engineering and improvement in productivity

The respondents were requested to explain how they perceived the influence of Business process Re-engineering on improvement in productivity in their work place. They showed that they expected BPR to improve efficiency, speed and quality of service, while reducing unnecessary operational cost and wastage of the little resources. They showed that it would ensure improved customer satisfaction. This is to say that BPR would revolutionize strategy and the normal ways of doing things. To ensure its effectiveness and achieve its effectiveness, BPR must be totally owned by the organization.

Other respondents showed that their organizations had great traditions that date back many years ago. These traditions lend change process to be compared with past achievements instead of working with the prevailing situations. They then said that modern technology that was being adopted in communication and procedures for treating patients needed to be continuously improved and adoption of the more modern methods was very important.

4.4.2 Effects of organizational culture on competitive advantage

The respondents were asked to show the effects of organizational culture on competitive advantage of their companies. Most of the respondents showed that the organizations culture reduced the competitive advantage of their companies. Earlier the perceptions of the visions, objectives and missions of the organization were not felt. Further, the collective attitude of people at the organization was always conflicting and negative. The meanings that people attached to their actions were always negative. The culture was comfortable and change resistant, which always dragged the organization backwards.

However, brand loyalty among volunteers enhanced the spread of the organisation services to the public. The culture of giving by the members and the staff raised the public interest in the brand though the down side is that there are more non commercial duties to be covered as

public duty. This is to say that change in organizational culture would have enhanced a competitive advantage of the business (company).

4.4.3 Effect of organizational Structure on competitive advantage

The study sought to establish what the effects of organizational Structure on competitive advantage were in their companies. The respondents indicated that the organizational structure reduced the competitive advantage of the company. There was a total confusion on clear cut designations, channels of responsibilities, decision making, departments and reporting lines. Management roles and reporting lines were not well defined. Responsibilities were so amorphous that confuses staff roles and work. Responsibilities were so wide leading to lack of concentration in the specific roles (which lack).

They showed that when an organization developed robust structure that is divided into Governance, Operations and Executive Secretariat, they were ensured of a competitive advantage. This ensured that wide arrays of skills were utilized in the organisation. With an organisation structure that had been organized on the basis of working cells of people distributed over the Country, a large team was able to attain a high level of competences and competitive advantage in that it could think global and act local.

4.4.4 Impact of Information Technology one competitive advantage

The respondents gave detailed information on how Information Technology ensured competitive advantage in their companies. The respondents showed that information technology ensured efficiency in information flow, communication and record keeping. That is, IT ensures competitive advantage in their companies, when fully optimized and functional.

However, this was an area that was still at infancy though some strides have been achieved such as paperless communication through e-mail, non contact meetings through Skype and knowledge sharing through use of LCD projectors. The organizations needed to adopt an

enterprise resource planning systems that would reduce costs of utilizing materials and equipment and manage the volunteer teams efficiently.

4.4.5 Effects of resources on competitive advantage

Lastly, the study requested the respondents to explain how the resources affected competitive advantage. The respondents showed that scarcity of resources led to use of obsolete equipments and ambulances that did not attract clients, lack of resources reduces availability of services at all the required places at the right times. With scarce resources, only incompetent and unskilled labour was attracted, the organization therefore had no capacity to attract and retain talent and skills. Poor management of the human resource killed staff motivation and lead to high rates of staff turnover, therefore continuity and growth lack. There always seemed to be new staff trying to understand the operations of the organization and quitting early before they did so. The resources therefore reduced the competitive advantage of the company.

They further showed that financial Resources in the organisation were scare and directed to key areas of operation. This limited the span of activities the organisation could undertake at an instance. It also enabled the team to plan more prudently and fundraising included in the action Plan. In contrast the Human resources were the strength of the Organisation due to their skill base diversity and availability in large numbers at low costs. The Organisation could thus focus its resources to achieve huge tasks including assisting other organizations partner in undertaking tasks in the field.

4.5 Discussions of Findings

4.5.1 Discussion on Competitive Advantage

The results obtained show that the respondents exposed the indicators of competitive advantage Cost Improvement, Improvement of customer Service, Improvement in Quality,

and Improvement in Productivity as postulated by Porters (1981) model. This was in agreement with David (2005), who showed that strategic management is a combination of strategy formulation, implementation and evaluation. David (2005) showed that strategic management endeavors in specifying an organization's objectives, developing policies and plans to achieve and attain these objectives, and allocating resources so as to implement the policies and plans. As regards these theories

Most of the respondents indicated that Business Process Re-engineering would enhance Cost Improvement at their work place as others strongly believed that Business process Re-engineering would enhance Cost Improvement. These results were in agreement with Raduan *et al* (2009), who exposed the profit-maximizing and competition-based theory as theory based on the main objective of a business organization, to maximize long term profit and development of sustainable competitive advantage over competitive rivals in the external market place. The results on competitive advantage confirmed the study by Sidikat and Ayanda (2008), which found that business process reengineering was useful weapon improvement of organizational performance in achieving cost leadership strategy

The results showed that respondents strongly agreed that improvement of customer service would have ensured by Business process Re-engineering at their work place as other showed that improvement of customer service would have ensured by Business process Re-engineering at their work places. They were strongly convinced that adoption of Business process Re-engineering would have lead to improvement in quality at their places of work. Others were just convinced that adoption of business process Re-engineering would just lead to Improvement in Quality at work place. Lastly, the respondents showed that they strongly believed that Business process Re-engineering would have ensured improvement in Productivity at their work place. These results conformed to the Resource-Based View as narrated by Ainuddin *et al.* (2007)

4.5.2 Discussions on Organisational culture

The results the respondents indicated that the various culture indicators highly influenced the competitive advantage. For instance, the respondents indicated that employee empowerment highly influenced on improvement of competitive advantage. Most of the respondents also showed that effective product innovation influenced improvement of competitive advantage highly. The results further showed majority of the respondents indicated that top Management Commitment very highly influenced improvement of competitive advantage. Other results showed most of the respondents indicated that strategic perspective very highly influenced improvement of competitive advantage. These results were in agreement with the Schein's theory, which shows that an integrated organizational culture reduces the uncertainty and ambiguity experienced in an environment and maintains an organization's operating capacity (Schein 1992, Weick 1995).

Parker (2000) maintains that the Schein's theory insists in a strong culture, where all workers must adopt the organizations values. The theory emphasizes on distinction between functions and units on the basis of the location of units and job description; distinction between genders and distinction according to years spent in the organization; professional distinction. This the indication that the results obtained portrayed.

Further these results confirmed the opposite of the study by Goksoy *et al.* (2012), which showed that if top management does not provide strong and consistent support in terms of capital, resources, or leadership the BPR became weak

4.5.3 Discussions on Structural Change

It was also evident that effective structural change highly influenced the competitive advantage. The results obtained showed that this was the case. Most of the total respondents indicated that reengineering team composition very highly influenced improvement of competitive advantage. As regards effective Process redesign, the respondents indicated that it

very highly influenced improvement of competitive advantage. The results also showed most of the respondents indicated that external relationships highly influenced improvement of competitive advantage. The results confirmed the Structuration theory as explained by Indeje and Zheng (2010) and advanced by Giddens (Giddens 1979 and 1984) that he structure builds an avenue for the human resource, making it an essential resource in BRP. The result emphasized the study by Gouranourimi (2012), which showed that Total Quality Management and BPR share a cross-functional relationship.

The results on structural change confirmed the study by Wen-Hsien *et al.* (2010), which established that successful ERP project involved business process change management. The results from the study by Magutu *et al.* (2011) were very evident in these results. The study by Magutu *et al.* (2011) showed that organizations seeking to undertake BPR initiatives should first understand the need for changing the organizationn. This is to say that the structural changes in an organization affected the competitive advantage of that organization, as shown by the results obtained in the present study. The study by Magutu *et al.* (2010) recommends that any organizations undertaking BPR initiatives must first understand the need for changing the organization and need to ensure that they adopt the key success factors for BPR implementation

4.5.4 Discussions on Information Technology

The results from the present study showed most of the respondents indicated that IT Infrastructure highly influenced improvement of competitive advantage. They also showed that information systems expertise influenced improvement of competitive advantage very highly. From the result, investment in information systems influenced improvement of competitive advantage very highly. The results were in line with the findings by Magutu *et a.l* (2010), which identified IT as one of the key factors of BPR implementation.

4.5.5 Discussion on Organizational Resources

The results on Organizational Resources showed most of the respondents indicated that financial resources influenced improvement of competitive advantage very highly. On people skills, the respondents showed that they highly influenced improvement of competitive advantage from these results. As regards quality management, a majority of respondents showed that it very highly influenced improvement of competitive advantage. The results thus obtained show that organizational resource played a leading role in ensuring competitive advantage of the company. This is supported by Schein's theory (Schein 1992, Weick 1995), which shows that organizational culture is a dynamic phenomenon and the firm should examine the continual and collective reality-building process that takes place there in for competitive advantage. These results obeyed the Resource-Based View, which insists that competitive advantage and its superior performance are fundamentally driven the attributes of the firm's resources and capabilities (Barney, 2007; Liao and Hu, 2007; King, 2007). According to the theory, organization structure, culture, resources and, technology transfer are significant sources of competitive advantage (Ainuddin *et al.*, 2007).

Further these results are supported by study by Li-Jen, Margi and Phillip (2011), which showed that BPR success was energized by innovation, employee empowerment, top management commitment and strategic direction and is dependent upon customer relations IS involvement and financial resources.

4.6 Inferential Analysis

Multiple regression was carried out to estimate a model that would explain improvement of competitive advantage in terms of positive cultural change; effective structure change, efficient information technology, and effective resources.

4.6.1 Diagnostic Tests on Study Variables

The study first tested the data for normality. The study tested for normality using Shapiro Wilk test (numerical method) since the sample population was small (less than 50). The results obtained are in Table 4.6.

Table 4.6 Results of Normality tests on Study variables

Study Variables	Shapiro-Wilk p-value
Improvement of Competitive Advantage	0.375
Cultural Change	0.269
Structure Change	0.413
Information Technology	0.112
Organizational Resources	0.218

Source: Research data (2013)

The p-value for; Cultural Change was 0.375, structure change was 0.413, information technology was 0.112, and organizational resources was 0.218. The p-values for respective independent variables were greater than 0.05, indicating that the data were normally distributed. Data is normally distributed, when each p-value of the study variables is greater than 0.05

The study tested existence of multi-collinearity and obtained the results in Table 4.7

Table 4.7 Results of Multi-collinearity Tests on Independent variables

Predictor Variable	Tolerance	Variance Inflation Factor (VIF)
Cultural Change	0.824	1.214
Structure Change	0.706	1.416
Information Technology	0.795	1.258
Organizational Resources	0.813	1.230

Source: Research data (2013)

Since the tolerance for all predictor variables were greater than 0.1 or 10%, the study concluded that there were no multi-collinearity among them. So the estimators computed were considered reliable to estimate the model.

The study did not use the error of prediction; as such there was no need to test for heteroscedasticity. In this study, absence or presence of heteroscedasticity did not render estimators (coefficients) biased, inconsistent and insufficient, therefore it wasn't diagnosed.

The study was not based on panel data, which rendered autocorrelation of no consequence. Autocorrelation underestimates standard errors, biases t-values upwards, and underestimates variance of error terms (thereby exaggerating the R squared).Therefore, the study didn't focus on the variability of the error term with respect to time, making autocorrelation check not necessary.

4.6.2 Estimation of the Study Model

The study model is given as:

$$CA = \beta_0 + \beta_1 CC + \beta_2 SC + \beta_3 IT + \beta_4 RE + \varepsilon$$

Where

β_0 - is a constant, which is the value of dependent variable when all the independent variables are 0

β_1 - β_4 Regression coefficients of independent Variables or change induced by CC, SC, IT, and RE

ε - Error of prediction

CA = Competitive Advantage

CC = Cultural Change

SC = Structure Change

IT = Information Technology

RE = Resources

Table 4.8 Results of Regression of Competitive Advantage and its determinants

Predictor Variable	*Coefficient*	*p-value*
(Constant)	*0.489*	*0.015*
Cultural Change (CC)	*19.317*	*0.008*
Structure Change (SC)	*5.473*	*0.019*
Information Technology (IT)	*0.184*	*0.007*
Organizational Resources (RE)	*0.256*	*0.013*
Size = 34 R^2=0.847 Adjusted R^2= 0.779		

Source: Research data (2012)

The estimated equation is **CA =0.489 + 19.317CC + 5.473SC + 0.184IT + 0.256RE**

Results in Table 4.8 shows that cultural change, structure change, information technology, and organizational resources had positive coefficients, which shows that they were directly proportional to Competitive Advantage. This means that an increase in any of; cultural change, structure change, information technology, and organizational resources led to improved Competitive Advantage. Considering the Competitive Advantage and independent variables, the results in table 4.83 indicates that 77.9% of variation in Competitive Advantage is explained by cultural change, structure change, information technology, and organizational resources. The validation of this model confirms the findings by Goskoy, et al. (2012), which showed that the successful factors to BPR as the independent variables in the present study.

CHAPTER FIVE: SUMMARY, CONCLUSION & RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of findings of the study and answers the research objectives. It also contains the conclusions reached from the study findings as well as the recommendations based on the findings. It further highlights the research gaps the researcher felt should filled by further research.

The results are summarized based on the following objective; To explore the effects of positive cultural change on competitive advantage of St John Ambulance series in Nairobi, Kenya as compared to other ambulance service providers in Kenya; To find the effects of effective structure change on competitive advantage of St John Ambulance series in Nairobi, Kenya when compared to other ambulance service providers in Kenya; To establish the impact of efficient information technology on competitive advantage of St John Ambulance series in Nairobi, Kenya in comparison with other ambulance service providers in Kenya; and To find out the effects of effective resources on competitive advantage of St John Ambulance series in Nairobi, Kenya as compared to other ambulance service providers in Kenya.

5.2 Summary

The response rate was very impressive and very good by Mugenda and Mugenda (2003). The study found out business process re-engineering would enhance cost improvement at their work place. The respondents strongly believed that Business process Re-engineering would enhance Cost Improvement. Very few respondents showed that Business process Re-engineering would not enhance Cost Improvement at their work place.

Further, it was established that improvement of customer service would have ensured by Business process Re-engineering. As regards improvement of customer service, a majority of respondents strongly agreed that improvement of customer service would have ensured by Business process Re-engineering at their work place. They also showed that improvement of customer service would have ensured by Business process Re-engineering at their work

places. From the results, it was also established that adoption of Business process Re-engineering would have lead to improvement in quality at their places of work. They indicated that they were strongly convinced that adoption of Business process Re-engineering would have lead to improvement in quality at their places of work. More support to this argument was justified by majority, who were convinced that adoption of business process Re-engineering would just lead to Improvement in Quality at work place. It was further found that Business process Re-engineering would have ensured improvement in Productivity at their work place, as shown by all the respondents.

The study results showed that majority of respondents indicated that employee empowerment highly influenced on improvement of competitive advantage. Most of the respondents showed that effective product innovation influenced improvement of competitive advantage highly. From the results majority of the respondents indicated that top Management Commitment very highly influenced improvement of competitive advantage. The results showed most of the respondents indicated that strategic perspective very highly influenced improvement of competitive advantage.

Majority of the total respondents indicated that reengineering team composition very highly influenced improvement of competitive advantage. As regards effective Process redesign, most of the respondents indicated that it very highly influenced improvement of competitive advantage. The results showed most of the respondents indicated that external relationships highly influenced improvement of competitive advantage.

As regards information technology, showed most of the respondents indicated that IT Infrastructure highly influenced improvement of competitive advantage. They were followed by those who showed that IT Infrastructure influenced improvement of competitive advantage very highly.

Most of the respondents showed that information systems expertise influenced improvement of competitive advantage very highly. They also showed that investment in information systems influenced improvement of competitive advantage very highly as the remaining

showed that it highly influenced improvement of competitive advantage. The results indicate that none of the respondents had a different opinion from these.

It was very evident from the results most of the respondents indicated that financial resources influenced improvement of competitive advantage very highly. On people skills, the results showed most of the respondents indicated that it highly influenced improvement of competitive advantage from. As regards quality management, most of the respondents showed that it very highly influenced improvement of competitive advantage.

The inferential results showed that the Competitive Advantage was explained by cultural change (p-value, 0.008), structure change (p-value, 0.019), information technology (p-value, 0.007), and organizational resources (p-value, 0.013). This further supported by the fact that 77.9% of variation in Competitive Advantage was explained by cultural change, structure change, information technology, and organizational resources. This shows that three independent variables; cultural change, structure change, information technology, and organizational resources were estimators Competitive Advantage and they highly influenced it.

5.3 Conclusion

The study findings led to drawing the conclusions given herein. From the findings of the study BPR could actually lead to competitive advantage in ambulance service provisions. The key areas of improvements can be achieved in process quality and customer service. Improvements can also be achieved in process cost and production efficiency. Successful BPR would require effective analysis of the current situation; top management must support of the change and drive it through to success. All the key drivers for success of BPR (i.e. cultural change, structure change, information technology, and organizational resources) highly influence the competitive advantage of ambulance service providers in Kenya. These factors;

cultural change, structure change, information technology, and organizational resources must be taken ensured fro competitive advantage of a ambulance service firm and a lapse in any the factors may lead to failure of the BPR. This is to say that good leadership is key to success and must be exhibited throughout the implementation phases. Organizations should also seek to change the entire organization as opposed to making changes in sections or areas that appears weak. Information technology infrastructure and ERP software is a key enable to be able to undertake the change and monitor it.

The study estimated a model for competitive advantage in terms of cultural change, structure change, information technology, and organizational resources. The model shows that competitive advantage was related to all these factors, which means that the factors regarded as independent variables influenced the dependent variable (competitive advantage). All the independent variables; cultural change, structure change, information technology, and organizational resources significantly influenced the dependent variable, competitive advantage. This was indicated by the p-values, which were all below .05 significance level.

5.4 Recommendations

5.4.1 Policy Recommendations

St John Ambulance would achieve competitive advantage by implementing business process reengineering. In fact all the four competitive advantage measures of cost management, customer service, quality and productivity measure highly in improvement of productivity. There was general consensus among the respondent that the competitive advantage of the Ambulance Company would be improved by implementation of BPR. To make this a reality St. John Ambulance should do a number of things.

Firstly, St John Ambulance should improve the process and organizational alignment towards the customer. It was found that employee empowerment highly influenced on improvement of competitive advantage, effective product innovation influenced improvement of competitive advantage highly, top Management Commitment very highly influenced improvement of

competitive advantage, and strategic perspective very highly influenced improvement of competitive advantage. However, St John Ambulance lacked these initiatives.
Secondly, St John Ambulance needs to ensure case for change in culture. From study findings, reengineering team composition, Process redesign, and external relationships highly influenced improvement of competitive advantage. But it was established that this was not the case at St John Ambulance.

Thirdly, St John Ambulance needs to effectively invest in information technology. St John Ambulance lack sufficient information technology infrastructure to support its move to a competitive advantage.

Fourthly, St John Ambulance needs to ensure effective process management geared towards direct cost reduction or productivity improvement. The study findings showed that financial resources, people skills, and quality management very highly influenced improvement of competitive advantage but St John Ambulance lacks enough of each of these.

Lastly, implementing BPR alone is not enough by needs supplementing by other improvement techniques such as TQM, TPM, Kaizen among other.

5.4.2 Recommendations for further Research

The present study sought to establish whether BRP would be the appropriate strategy for St. John Ambulance's competitive advantage. It also sought to establish whether cost management, customer service, quality and productivity measure highly in improvement of productivity were indicators of competitive advantage. The study sought to relate cultural change, structure change, information technology, and organizational resources to competitive advantage of the ambulance service company. However, the study failed to establish the factors that hindered the adoption of BRP at St Johns Ambulance. The present study recommend that further study should be done to establish the hindrance to adoption of BRP for competitive advantage.

REFERENCES

Adeyemi, S.. & Aremu, M. A. (2008). Impact Assessment of Business Process Reengineering on Organisational Performance. *European Journal of Social Sciences*,7(1), 112-125.

Ainuddin, R.A., Beamish, P.W., Hulland, J.S. & Rouse, M.J. (2007). Resource attributes and firm performance in international joint ventures. *Journal of World Business,* 42, 47- 60.

Aneshensel, C. S (2004) *Univariate Analysis: Central Tendency, Spread, And Associations.* University of California, Los Angeles.

Aregbeyen, O. (2011). Business Re-engineering and organisational performance in Nigeria: a case study of first Bank Nigeria PLC. *International business management,* 5(3), 151-158.

Barney, J.B. (2007). *Gaining and sustaining competitive advantage*. 3rd edition, Upper Saddle River, NJ: Pearson Education.

David, F.R. (2005). *Strategic Management: Concepts and Cases*, Tenth Edition, Prentice Hall: Pearson Education International.

Goksoy, A., Ozsoy, B.& Vayvay, O. (2012). Business Process Reengineering: Strategic Tool for Managing Organizational Change an Application in a Multinational Company. *International Journal of Business and Management*, 7(2), 89-112.

Gouranourimi F. (2012). Total Quality Management, Business Process Reengineering & Integrating Them for Organizations' Improvement. *American Journal of Scientific Research*, 46, 47-59.

Groznik, A. and Maslaric, M. (2010).Achieving competitive supply chain through business process re-engineering: A case from developing country. *African Journal of Business Management*, 4 (2), 140-148.

Hindle, T. (2008). *Guide to Management Ideas and Gurus*. London: Profile Books Ltd

Indeje W.G., Zheng Q. (2010). Organizational Culture and Information Systems Implementation: A Structuration Theory Perspective. Sprouts: *Working Papers on Information Systems*, 10(27). 507-511.

King, A.W. (2007). Disentangling interfirm and intrafirm causal ambiguity: A conceptual model of causal ambiguity and sustainable competitive advantage. *Academy of Management Review*, 32(1), 156-178.

Kombo, D.K. & Tromp D.L.A, (2006). *Proposal and Thesis Writing An Introduction.* Makuyu, Kenya: Pualines Publications Africa.

Liao, S.H. & Hu, T.C. (2007). Knowledge transfer and competitive advantage on environmental uncertainty: An empirical study of the Taiwan semiconductor industry. *Technovation*, 27 , 402-411.

Li-Jen, C. Margi, L. & Philip, P. (2011). *Process Re-Engineering Success In Small And Medium Sized Enterprises.* Unpublished research paper, Coventry, UK: University of Warwick.

Magutu, P.O., Nyamwange, S.O. & Kaptoge, G.K. (2010). Business Process Reengineering For Competitive Advantage Key Factors That May Lead To the Success or Failure of the BPR Implementation (The Wrigley Company). *African Journal of Business & Management*, 1, 135.150.

McNamara, C. (2009). General guidelines for conducting interviews. Available http://managementhelp.org/evaluatn/intrview.htm.

Mugenda O.M & Mugenda A.G (2003). *Research methods: Quantitative and Qualitative Approaches*. Nairobi: Acts Press.

Muriuki, E. T. (2010). *Factors Influencing Perfomance of Community Based Health Financing Schemes of the Informal Setllemen*t. conf. Nairobi, Kenya.

Parker, M. (2000). *Organizational Culture and Identity.* London: Sage.

Porter, M.E. (1981). The contributions of Industrial Organization to Strategic Management. *Academy of Management Review*. 6(4), 609-620.

Raduan, C. R, Jegak, U, Haslinda, A, & Alimin , I. I. (2009). Management, Strategic Management Theories and the Linkage with Organizational Competitive Advantage from the Resource-Based View. *European Journal of Social Sciences*,11(3), 402-418.

Schein, E.H. (1992). *Organizational Culture and Leadership*. (2nd ed.). San Francisco: Jossey-Bass.

Sidikat, A. & Ayanda, A. M. (2008).Impact Assessment of Business Process Reengineering on Organisational Performance. *European Journal of Social Sciences*, 7(1), 115-125.

St Johns Ambulance Kenya [SJAK]. (2012), *St John Historical Documentation. A History Of St John Ambulance Kenya*. Nairobi, Kenya: SJAK.

Weick, K.E. (1987). Organizational Culture as a Source of High Reliability. *California Management Review*, 2, 133–127.

Wen-Hsien, T., Shu-Ping, C., Elliott, T.Y., Hwang & Jui-Ling, H. (2010). A Study of the Impact of Business Process on the ERP System Effectiveness. *International Journal of Business and Management*, 5(9).

APPENDICES

Appendix i: Introduction Letter

Dear Respondent

I am a student at Kenyatta University undertaking a Masters degree in strategic management. I have chosen your organisation to participate in this study on analysis of Business process Re-engineering as strategy to improve competitive advantage at St John Ambulance. More precisely, the researcher is making an attempt to study the internal factors that determine the improvement of competitive advantage at St John Ambulance, Kenya. Your responses will only be used for the purpose of the study. All information received from the respondents will be held confidentially. Kindly respond sincerely to the issues in the questionnaire. Please read and answer the questions by ticking the correct answer (choice) to the questions given. Where required, write brief answer in the spaces provided.

Thanking you in advance for your cooperation and participation.

Yours truly,

Dolly. B. Wanja
Adm No.D53/OL/20870/2010
School of Business
Kenyatta University

Appendix ii: Questionnaire

An Analysis on Business Process Re-engineering as Strategy to Improve Competitive Advantage at St John Ambulance, Kenya

This Questionnaire is meant to collect data from Ambulance service providers in Nairobi .Any information provided in this Questionnaire will be used for purposes of research only and will not be divulged or availed to unauthorized persons
Please take a few minutes to complete this survey.
Tick the correct answer in the boxes provided against the questions where provided.
Write brief answers where explanation is required.
You need not write your name on the questionnaire.
Please answer the questions as accurately as possible.

SECTION A: BACKGROUND INFORMATION

1. **Please indicate your grade by ticking in the appropriate box**

Board of Director	
Executive Manager	
Senior Manager	

SECTION B: Cultural Change

2. This section is about cultural change and its influence on improvement of competitive advantage. Please indicate (in your opinion) the extent to which each of the following cultural change factors enhance improvement of competitive advantage at your company. Please indicate by ticking ☑ the space corresponding to the correct answer

Scale: Not at all =0; Low = 1; Moderate =2; High = 3; Very High = 5

	Factor	**Not at All**	**Low**	**Moderate**	**High**	**Very High**
(a)	Employee Empowerment					
(b)	Effective product innovation					
(c)	Top Management Commitment					
(d)	Strategic Perspective					

SECTION C: Effective Structure Change

3. The table below contains factors of effective structure change. Please indicate (in your own opinion) the extent to which each of these effective structure change factors influence improvement of competitive advantage in your company. Please indicate by ticking ☑ the space corresponding to the correct answer

Scale: Not at all =0; Low = 1; Moderate =2; High = 3; Very High = 5

	Factor	**Not at All**	**Low**	**Moderate**	**High**	**Very High**
(a)	Reengineering team composition					
(b)	Effective Process redesign					
(c)	External relationships					

SECTION D: Efficient Information Technology

4. This section is about revenue collection efficient information technology. According to you, to what extent would efficient information technology enhance improvement of competitive advantage in your company? Please indicate by ticking ☑ the space corresponding to the correct answer

Scale: Not at all =0; Low = 1; Moderate =2; High = 3; Very High = 5

	Indicator	Not at All	Low	Moderate	High	Very High
(a)	Efficient Infrastructure					
(b)	Information Systems Expertise					
(c)	Investment in Information Systems					

SECTION E: Effective Resources

5. Given below here is a list of effective resources indicators. In your opinion, please indicate extent to which each of these indicators influences improvement of competitive advantage in your company. Please indicate by ticking ☑ the space corresponding to the correct answer.

Scale: Not at all =0; Low = 1; Moderate =2; High = 3; Very High = 5

	Indicator	Not at All	Low	Moderate	High	Very High
(a)	Financial Resources					
(b)	People skills					
(c)	Quality management					

SECTION G: Improvement of Competitive Advantage at St. Ambulance

6. In your opinion, please indicate the extent to which you agree or disagree with the following statements regarding the effects of Business process Re-engineering on influences improvement of competitive advantage in your company. Please tick ☑ on the space corresponding to the correct answer.

Scale: Strongly Disagree =0; Disagree = 1; Neither =2; Agree = 3; Strongly Agree = 5

	Statement	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
(a)	Business process Re-engineering will enhance Cost Improvement at St. John ambulance					
(b)	Improvement of customer Service will be ensured by Business process Re-engineering at St. John ambulance					
(c)	Adoption of Business process Re-engineering will lead to Improvement in Quality at St. John ambulance					
(d)	Business process Re-engineering will ensure Improvement in Productivity at St. John ambulance					

7. Please briefly explain how you perceive the influence of Business process Re-engineering on Improvement in Productivity in your company

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8. **How does organizational culture affect competitive advantage of your company?**

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9. **What is the effect of organizational Structure on competitive advantage of your company?**

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10. **How does Information Technology ensure competitive advantage in your company?**

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11. **How do the resources affects of competitive advantage of your company?**

Thank you for your time and cooperation.