BUSINESS PROCESS RE-ENGINEERING AND OPERATIONAL PERFORMANCE AT NAIROBI CITY COUNTY

BY

MWAURA IRENE MWIHAKI

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

AUGUST 2016

DECLARATION

I declare that this research project is my own original work and has not presented to any other institution of higher learning for an award of a degree, diploma or certificate.

Signature……Date……

MWAURA IRENE MWIHAKI

D61/72617/2014

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

Signature……Date……

AKELO E.O

DEPARTMENT OF MANAGEMENT SCIENCE

UNIVERSITY OF NAIROBI

ACKNOWLEDGEMENTS

I thank God who enabled me to successfully complete the research project. Jehovah You gave me the grace, strength and good health throughout the period of the study. May Your Name be praised forever.

I also thank my supervisor Mr. Akelo E.O for his commitment and guidance through this research process. I have learnt a lot from your wisdom that you patiently shared, as you guided me through the study. .

DEDICATION

I dedicate this work to my parents Mr. and Mrs. Mwaura and my loving husband Kennedy Gitonga for your love and support throughout my life. I could not have come this far without you, God bless you.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

The aim of this study was to examine Business Process Re-engineering and operational performance at the Nairobi City County. A review of the literature showed that there was scanty information on how the Public Sector could improve on service delivery by implementing BPR, especially in a developing economy. The Nairobi City County embarked on an aggressive transformation initiative which included establishing new operation structures, focusing on Customer satisfaction, enhancing resource allocation and adopting ICT. A sample of 300 people was drawn from employees, senior management, and county assembly officers. Data was collected through structured questionnaires. In order to define the sample profile for the study, descriptive statistics were used and person correlation coefficient was applied in establishing the level of significance for the values variables obtained. In order to ascertain any statistical significance in the relationship between different variable, Chi-Square tests were computed. Additionally, regression analysis was carried out on the data to establish the predictive how BPR impacts on operational performance in the Nairobi City County. The study findings revealed that there was a statistically significant association between business process reengineering and operational performance.

.

LIST OF ABBREVIATIONS

ICT – Information Communication Technology

NCC – Nairobi City County

BPR – Business Process Reengineering

CHAPTER ONE
INTRODUCTION

1.1 Background of the study

The market environment keeps on constantly changing making it imperative for organization to constantly adopt their activities in order to succeed. Various organizations change approaches and methods that have been developed to enhance performance of business making them more effective, efficient and responsive to the turbulent environment changes. One such organizational change is called business process re-engineering (Johnson & Scoles, 2006).

Chase, Jacobs and Aquilano (2004), defines business process re-engineering as the process of changing of fundamental business processes in order to achieve dramatic improvements in critical business performance measures such as service delivery speed, quality, and cost. It starts with an assessment of the organizational vision, mission, strategic objectives and customer requirements. Macdonald (1995) noted that there is need for organizations to undergo radical changes in the way they are working as steady products and improvement of services is not enough for a business to survive in a competing business environment. Therefore, reengineering of business processes leads to fundamental changes in various aspects of the organization which includes job characteristics, organization structure, performance measure and rewards systems.

1.1.1 Business Process Reengineering

Business process re-engineering is the process of rethinking the radically redesigning business processes and procedures in order to achieve dramatic improvements in cost reduction, quality improvement and increase speed of service delivery (Nigel, 2001). Arora (2004) noted that business process re-engineering involves a systematic critical examination of the existing ways of doing things in the organization with a view to developing easier and more effective methods of conducting business in order to make the functions faster more cost efficient and qualitative. He further argued that business process reengineering brings out weaknesses of the existing systems and attempts to restructure and re-engineer process and human resources at the departmental level in order to maximize productivity.

Donald (2002) defined business reengineering process as involving the act of rethinking and redesigning the way business operations work in order to better achieve the organizations mission and cut costs. Gouranourimi (2012) further argued that business process reengineering differs from other techniques of change management in that it employs the techniques of continuous process improvement and total quality management by instituting initiatives that focus on improvement of work processes. It requires changes to be made in the organizational structure and is often measured in terms of the time required for implementation and outcomes. Business process re-engineering forms the basis upon which initiatives aimed at procedure improvement are implemented.

The main aim of business process reengineering is to ensure all organizational processes are effective. It focuses more on overall performance improvement rather than any one element or measure of performance. Tharanga (2010) noted that reengineering allows organization to have a competitive advantage over other firms in the industry. The benefits resulting from business process reengineering is enormous. It aligns human resources, processes and technology with strategic goals and objectives organizational and the outcome is an integration of business processes that work efficiently. The achievements of Business Process Reengineering benefits according to Macdonald (1995), are considered not easy to achieve but there is substantial evidence that can be effective. Before an organization adopts BPR, it must fact determine whether there is a compelling business case to introduce the changes. Consequently, the objectives of the project must be well defined. A research done by Price Water House Coopers (2007) showed that recently, there have been several initiatives to reform the public sector in terms of delivery by improving operational performance. Global trends show that global competition for investment, budgetary constraints and raising customer expectations are critical factors in bringing public sector reforms. The changing global business environment has also dramatically transformed the way public sector organizations operate. Consequently, new opportunities have emerged following elimination of old constraints. Central to public service delivery is the level of expectation of citizens. Customer expectations transcend economic status, methods of service delivery, funding methods and geographical boundaries.

Odede (2013) noted that the changing business environment has necessitated public sector organizations to redefine their objectives, invest in integrated service delivery and focus on customer service. Odede (2013) further argued that traditional service delivery models require radical redesign in order to realize desired benefits and meet customer needs in an efficient and effective manner. Consequently, customer's needs should be at the center of every decision in public sector. Additionally, customer needs should be factored in from strategy formulation to implementation. Public sector business process re-engineering is necessary for improved service delivery, waste reduction and improves efficiency through elimination of duplication and thus improves on customer service experience.

Factors that have necessitated radical changes in Nairobi County Council include increased level of awareness of citizens' rights, improved access to critical information on public service. Consequently, the public has a higher expectation in terms of service levels. Another critical factor which has led to higher service level expectation among citizens is the fact that they have been accustomed to high quality services which are provided by private service organizations. Consequently, citizens expect public sector services to be of the same quality as those in the private sector. As a result citizens cannot condone organizations that are unable to improve their service performance. They anticipate high customer service experience and high level customization as a return for the taxes that they pay. Technology has been a key enabler in implementing business process reengineering (Jepkemoi, 2010).

1.1.2 Operational Performance

Operational performance is the processes geared at coordination and enhancement of the work activities and the results within a given organization (Khakata, 2014). It is the appraisal of prescribed indicators or the standards of efficiency, effectiveness and accountability such as cycle time, productivity, regulatory compliance and waste management (Mungai, 2015). Operational performance is a subset and one of the key constructs that contribute to the overall organization performance. The operations are evaluated from the time the orders are placed and the supply of materials is done to the organization all the way to production until they reach the ultimate final stage of delivery

and feedback. Organizations are aimed at converting inputs to output, utilize resources and provide products and services to customer and consequently attain their objectives in an efficient and effective manner. Every organization strives to distinguish itself from competitors' organization through unique strategies in marketing, human resource and finance (Kumar & Suresh, 2009). A firm's operations include a number of activities which include: establishing necessary facilities, creating plant layouts, handling materials, process design, production, materials management, planning control and maintenance work.

The main themes in operational performance are efficiency and effectiveness. According to Lee and Johnson (2013) efficiency is defined as how well a business activity is performed. It can be captured by the phrase, "doing things right". Lee and Johnson (2013) further argue that efficiency is the ability to deliver services and products without compromising on quality. On the other hand, effectiveness involves the selection of the best course of action. Consequently, it can be captured by the phrase, "doing the right thing". Effectiveness is the ability to perform a task in the best way possible in order to meet customer needs. Consequently, a firm that is effective establishes strategic goals and is efficient if it achieves its strategic goals using minimal resources (Lee & Johnson 2013).

1.1.3 Nairobi City County

The Nairobi City County is a successor of City Council of Nairobi. It was created when the new constitution of Kenya was adopted in 2010. It is governed by the Cities and the Devolved Government Act, Urban Areas among other Acts. It provides water and sewerage, health, basic education, garbage and refuse disposal, fire services, urban public transport and planning and development control to citizens within its jurisdiction.

The population of Nairobi is rapidly growing thus calling for the Nairobi City County to manage infrastructure in a way that will be effective and time saving in service delivery. It is a fact that it has considered doing Business Process Re-engineering so that it can keep pace with challenges of rapidly developing the city with the aid of Information Communication Technology (ICT). Among the areas NCC considered doing business process reengineering include, e-payment solution, unified communication via the

website, ICT infrastructure, geographic information systems, workflow, documentation and case management and also intelligent city surveillance and traffic management (Price water House Coopers, 2007). ICT being the key enabler of business process reengineering implementation has seen the county have significant control and management of the assets thus efficient management of the assets and payment mechanisms and also improved operational performance. In the recent past, the citizens could access very deficient information including how much and from which sources they collect revenues.

1.2 Research Problem

Business process reengineering is broad in nature and is cross function in the sense that it touches on all processes which are vital to the organization. For an organization to survive during difficult times, it is important that they redesign their approach to the way they carry out their business processes (Davenport, 1993). However, BPR can fail if they do not actually give support or contribute to the organization's strategic objectives, operation of the business or managerial needs of an organization. This can severely damage its prospects for success and survival. Therefore proper management of BPR is a major challenge for managers. In implementing BPR, an organization identifies critical business processes and develops strategies to improve such processes. This involves a radical change in the already existing processes.

In NCC, several changes have been realized as a result of BPR in licensing, revenue collection, and infrastructure planning and public communication. E-payments have reduced the rate of corruption and improved on the revenue collected by NCC. Trading licenses are acquired faster and can be accessed online, making it convenient to obtain and replace. The design and development of an interactive website has enhanced dissemination of public information and improved on public participation in support of operational efficiency in the service delivery to the citizens. There is still overcrowding and long queues at the NCC offices and like any other public sector organization it has been looking for ways of eradicating corruption while trying to achieving a high level of customer satisfaction while striving to meet its mission.

Several scholars have examined the concept of business process re-engineering (BPR) both at international as well as in the local context. (eg. Sarang , 2012; Ensermu & Moorty, 2013; Khuhil, 2013; Awolusi & Onigbinde, 2014; Odede, 2013). Sarang (2012) examined the Implementation of Business Process Re-Engineering in the Retail Banking Sector in India. The study concluded that the BPR in the banking sector involved the change of technology and workflow processes. Ensermu and Moorty (2013) found that BPR improved quality of service, speed of service delivery and cycle time thus resulting in improved organization performance. Khuhil (2013) concluded that implementing BPR initiatives led to improved operational performance in public commercial banks in Ethiopia. Nzewi and Moneme (2015) researched on BPR of courier service organizations in Anambra state, Nigeria (2015) and found out that concluded that the BPR is a veritable engine of organizational survival in courier service sector characterized by technological discontinuities, customer demands, ever-changing regulatory conditions, and increasing environmental uncertainties.

Odede (2013) found out that Kenya Revenue Authority implemented BPR initiatives in its operations which resulted to turnaround time, cost reduction, improved customer service, improved technology and revenue growth. Momanyi (2013) found out that implementing BPR in asset management of Kenya Petroleum Refineries drastically improved its materials approval process time. Mungai (2015) found out that BPR helped UAP to achieve simplication of operational process, improvement in the tracking of complaints, simplication of operational process leading to customer loyalty and also improvement in the process of customer acquisition and consistency in service delivery. However, none of the studies has done business reengineering process focused on the Nairobi City County. Informed by this knowledge gap, the study aimed to determine the link between business process reengineering and operational performance of Nairobi City County. The study aimed to answer the research question; what is the relationship between business process reengineering and operational efficiency in Nairobi City County?

1.3 Objectives of the Study

The general objective of the research was to assess the impact of business process reengineering in the Nairobi City County on its service delivery. Specific objectives were:

i. To determine the extent of business process reengineering implementation in Nairobi City County.
ii. To determine the relationship between the business process reengineering and operational performance in Nairobi City County.

1.4 Significance of the Study

The outcome of the research will be useful in a number of areas. To Nairobi City County, it will help the management to assess the results of BPR implementation. This will enable them to work on a performance improvement plan, as it will highlight the areas that customers are unsatisfied, and bring out the implementation challenges that need to be ironed out. The study will also help other organizations with intentions to adopt BPR to understand its applicability in effective and efficient service delivery especially in the Public Sector. They will also be able to learn from the pitfalls in the implementation of BPR hence will not need to re-invent the wheel. This will enable them to work better towards successful implementation when doing so. To academicians and students of operations management, this study will present the kind of challenges faced, benefits derived and critical success factors that are encountered when implementing a change management technique in a public institution. Thus forming a foundation on which more in-depth studies could be done with respect to implementation of business process reengineering.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This section of the study outlines the literature relevant to the research problem under investigation. This chapter examines the theoretical review, aspects of BPR, empirical review, conceptual framework and the summary of reviewed literature.

2.2 Theoretical Literature

Many theories have been suggested in trying to explain the complexities of organizational change. This study was guided by the group dynamic theory, the gestalt field psychologist theory, and the open school system theory to describe the various changes that impact on operational performance in an organization.

2.2.1 The Group Dynamic Theory

A group refers to several people who come together in order to accomplish a specific task. The group dynamics theory is based on the attitudes and behaviors that characterized individuals in a group. It specifically attempts to explain how groups are formed, their structures and how they work (Etcoff, 2005). Communication is key in the group dynamic theory. The theory argues that individual behavior is an interplay between the intensity and the valence of forces, both positive and negative, impinging on the person. It also suggests that in order to introduce change, it is critical to implement strategies that will positively influence the groups' behavior by challenging its beliefs, norms and value systems rather than focusing on the individual. This is due to the fact that an individual's behavior is likely to conform to that of the group. This perspective has been largely adopted when developing theories and practices in business change management (Marcus, 2013).

Group cohesion is defined as the bonding of individuals within a group and their desire to continue to work together as a group. Cohesion in work teams has many benefits that include higher productivity, low turnover and employee satisfaction. However, if the goals of group are not aligned with those of an organization, highly cohesive group can negatively influence organizational performance. Additionally, research evidence shows that in cases where work activities involve task variety, decision making and experience

team performance often outperform individual performance. Groups are also tending to be more flexible and adaptable. They can be assembled quickly, work on specific tasks and be disbanded or be assigned other tasks. Additionally, groups have been known to be more motivated and group members are motivated to work on problem solving tasks and assume a decision making responsibility which not only empower them but also improves productivity. Groups also contribute to organizational effectiveness since they complete most of the tasks in the organization (Lafasto et al., 2001). Leaders who embrace teamwork are likely to realize success in their organizations in terms of effective and efficient service delivery. The theory tries to explain how group cohesiveness and organizational communication can enhance operational performance in Nairobi City County.

2.2.2 The Gestalt Field Psychologist Theory

Gestalt Psychologist Theory states that learning is a process of improving insight, outlook, thought patterns or expectations, and an individual's interactions with the environment is only a partial explanation. It argues that an individual's behavior is as a result of the environment and reason. It takes into account a person's actions, responses they elicit and also the interpretation of those actions. The theory helps leaders to understand the needs of individual members working under them and their immediate environments which may lead to behavioral change. The theory forms a foundation for performance improvement through motivation and performance based incentive rewards and organization behavior reinforcement. This theory attempts to explain how important it is for the leadership in Nairobi City County to understand those working under them (Cole, 2011).

2.2.3 The Open School System Theory

Lawrence, Lorsch and Thompson (2011) argue that organizations as being composed of interconnected subsystems or units. As a result, change in one unit or subsystem affects other parts resulting to a change in the overall performance of the organization. They argued that organizations that operate in a stable and predictable environment can be more productive and efficient when they are organized in a traditional hierarchical structure. On the contrary, those that are exposed to fast changing technologies and

market environments tend to be more successful, if they embrace technology, in their day to day activities.

The researchers continue to argue that the more rapid the changes in the external environment the more necessary it is for subsystems to be specialized in their functions. This means organizations have to adopt newer and better technologies while emphasizing co-operation between the different teams within the organization. Inputs such as technology are transformed to yield products and services (outputs), which improves efficiency. Outputs are then released into the environment (Sarah & Toman, 2005). This theory tries to explain how information technology has influenced the organizational performance in Nairobi City County.

2.3 Business Process Reengineering

Business process reengineering is the process of rethinking and redesigning work processes. It begins with an assessment of the mission, goals and objectives of the organization as well as the requirements of customers. According to Gouranourimi (2012), reengineering of business processes really calls for getting to the roots of the issues and also making far reaching changes rather than superficial ones in order to effectively solve all the underlying problems. It calls for interrogation of the status quo and questioning the way an organization usually operates giving answers to the questions that provide insight as to why an organization does what it does with a goal of accomplishing its mission. Moreover, there are several aspects that contribute to its success as discussed below.

2.3.1 Information, Communication Technology

Information and Communication Technology (ICT) has been identified as a critical component of the business process reengineering process. Consequently, some researchers consider it an enabler for changes in work processes and collaboration both within and between organizations. However, according to Larsen (2003), at the organizational level, ICT is widely accepted, though not fully appreciated. For increased efficiency, cost effectiveness and competitiveness, integration of ICT in organizations functions is key.

Hammer (1990) emphasized the need to implement modern computer and communications technology in order to overcome the challenges inherent in work processes. Consequently, BPR should take advantage of IT as a competitive advantage in strategic planning. According to Hammer (1990), IT infrastructure that should be included in BPR includes shared services, intellectual assets, physical assets and networks. Hammer (1990) also argues that the configuration of IT infrastructure components is a critical determinant of the way information resources can be delivered. An effective IT infrastructure should use a top-down approach starting with the business strategy and IS strategy. The IS strategy should include details on systems, data and computer architecture.

Weicher et al., (2005) argued that the link between BPR and IT is irrevocable. Weicher et al., (2005) noted that it would not be possible to perform business process reengineering that entailed distribution channels for mass-market retail goods and procurement processes without involving IT. In another study, Weicher et al., (2005) noted that Ford was able to reduce its workforce by 75 % in the procurement department mainly through effective use of IT together with BPR. Consequently, BPR and IT infrastructure are can be considered independent. This is because the decision to restructure or introduce new business process with influence the components of IT infrastructure that will be used (Ross, 2008). Additionally, a responsive IT infrastructure depends on the information produced through different business activities which are specified in BPR. BPR considers the types of business processes, their sequence and how they generate data to be used by IT systems.

2.3.2 Leadership

Organizational commitment requires the involvement of different stakeholders which include: support from senior management, support from users, and effective BPR team, and funding. However, for any BPR project to commence, support from senior management must first be secured. Consequently, strong leadership is essential for successful implementation of BPR. Reengineering efforts cannot succeed without organizational commitment. Consequently, it is important to enlist the support of senior management during the process. First, senior management has to recognize the need for

change and understand how BPR will achieve the much needed outcomes (Dooley & Johnson 2001, Motwari et al., 2008).

In order to be effective in influencing BPR, leadership has to be visible, strong, and create a clear vision (Odede 2013). The first step in implementing BPR requires that all the affected teams be informed about the changes to be introduced before the process can start. This is likely to reduce resistance from affected employees and ensure results for the BPR process. However, the final success of BPR is determined by consistent, strong and continuous engagement with affected teams throughout the organization. Additionally, success also depends on the people who implement BPR. Al-Mashari & Zani (2001) suggests that highly motivated, creative BPR teams with detailed knowledge of the system are effective in redesigning business processes.

In order to be effective, BPR implementation teams should include representatives from the different work teams in the affected organizations. These should include: senior management, finance, user groups and technology representatives. The representatives from the different work groups will have a greatly affect the final results of the business process reengineering. Dooley and Johnson (2001), emphasize that BPR teams should be diversified in terms of knowledge and depth. Moreover, Covert (2007), argues that effective BPR team members should be less than ten. The researcher argues that less than ten makes the team manageable. However, if the number is more than ten, then challenges will be encountered in executing its functions effectively and efficiently. Finally, it is important that the efforts of BPR teams are directed towards finding breakthrough opportunities and redesigning processes with the goal of creating quantum gains and gaining competitive advantage (Motwari et-al., 2008).

2.3.3 Focus on Customer

Hammer and Stanton (2005) observed that recently, customer have not only become demanding in terms of service quality but also sophisticated in terms of their requirements. Hammer and Stanton (2005) argues that customers are more knowledgeable about their requirements and are demanding a much larger range of alternatives. According to Kumar (2002), recent developments indicate that the relationship between organizations and their customers do not end at buying or selling of

the product or delivering a service. It has since grown to include a wide range of business activities focused at managing customer service, pricing, production, consulting and distribution. These rapid changes taking place in organizations are forcing companies to redesign their business processes with a goal to meeting evolving customer requirements.

Hammer (1995), claimed that the main challenges among managers is to completely replace work processes that do not add value instead of using technology to automate such processes. Hammer (1995) observed that majority of work practices in organizations do not add value to customers. Consequently, these work practices should be completely removed rather than using technology to accelerate them. Additionally, Hammer (1995) emphasized the need for organizations to evaluate their ability to fulfill customer requirements and in light of existing cost structure.

2.3.4 Staff involvement

According to Myriam (2003), business process reengineering was initially considered as a form of work process design that followed a top-down model. However, since the work processes being addressed through business process reengineering are broad in scope, it is necessary to select a small team of process designers to analyze the work processes and redesign them. Initially, it was assumed that only managers involved in multiple functions were able to recognize opportunities for innovation. Consequently, high level work process design had to be completed by a small team of designers after analyzing the organizational work processes in their entirety. The team identified benchmarks and relevant enablers during the process (Davenport & Stoddard, 2004). Recently, greater focus has been made on value of having representatives from every section of the organizations in a business process reengineering team. Additionally, IT has also recognized that the development of sophisticated work process activities can be done effectively by engaging those who perform the work. Firstly,because they have firsthand experience of specific procedures that may be overlooked by outsiders. Secondly, these workers will be able to own the reforms once the process redesign is completed.

Although a participative approach is considered critical to the success of BPR, many public sector organizations emphasize a top-down organizational structure which discourages employee participation (Taylor et al., 1997). Archer and Bowkers (2005) carried out a survey study on consulting firms that conduct business process reengineering. The researchers noted that lack of employee participation, communication of a clear vision, inability of employees to take ownership of the process largely contributed to the failure of many business process reengineering projects. Consequently, for any BPR to be successful, all employees from the different business units and levels have to be directly involved in the process in order to motivate them to take ownership of the project. In addition, it is necessary to instill a culture of reengineering and emphasize on project organization and planning.

2.4 Operational Performance

Khuhil (2013), notes that efficiency and effectiveness are critical factors when determining the level of performance in any organization. In both non-profit and profit making organization, performance can be determined by measuring effectiveness and efficiency. According to Drucker (1977), effectiveness captures the aspect of "doing the right things" while efficiency involves the aspect of "doing things right". Drucker (1977) argues that efficiency determine the organization's ability to achieve maximum output using the most minimum input level. While efficiency does not is not a standard measurement of success in the industry, it is a critical determinant of operational excellence especially in the utilization of resources. Efficiency is concerned with minimizing operational costs and methods of resource allocation (Achabal et al., 2004). Keh et al., (2006), observed that effectiveness is a critical determinant of the ability of an organization to attain it goals and objectives. Asmild et al., (2007) emphasized that an organization is considered effective to the level at which it is able to attain it goals and objectives.

In order to measure how well a business process performs, business process efficiency measurements are used (Zaheer et al., 2008). Business process efficiency can be enhanced by cutting costs, making improvements in cycle time and standardization. In order to minimize costs, it is necessary to minimize resources such as human resources, material, time and money. Consequently, these changes improve on business performance which is defined to as the ability of the organization to attain its operational

and strategic goals and objectives (Lin et al., 2008). It is critical to note that performance measurement is central to organizational strategy especially in today's competitive market environment.

Sidikat (2008) investigated the impact of BPR in the financial services sector in Nigeria. The findings showed that changes in organizational performance introduced through business process reengineering significantly impacted on financial products and services. The aim of the research was to form new structures for the introduction of new banking products and services such as flexible deposit schemes, educational loans, credit cards and housing loan schemes. Additionally, the study was meant to evaluate the impact of integrated branch network and customer product personalization initiatives through anytime banking and Automatic Teller Machines. Sidikat (2008) concluded that in line with literature, critical analysis and radical redesign of work processes are essential components of any business process reengineering process. Sidikat (2008) recommended timeliness, effectiveness and quality of services as critical for making breakthrough improvements in operational performance in the banking sector.

2.5 Empirical Literature Review

Service focused organizations can improve customer satisfaction by ensuring that customer needs are at the center of business process reengineering projects. Strictly defined rules and lack of authority often limits many service workers from satisfying the needs of customers. Janson (1992) highlighted three principles that any organization intending to reengineer its business operations should consider. They included putting customer needs at the center of the change, clearly defining customer needs and establishing the necessary infrastructure to support the new operations. Secondly, the BPR teams should design work processes in line with the strategic objectives of the organization. Finally, such an organization should restructure its existing operations with a goal to support front-line operations.

Several scholars have investigated the concept of business process reengineering both globally and locally. Sarang (2012) studied business process reengineering in the retail industry in India. The study conclusions indicated that BPR in the retail sector entailed introducing technological changes and redesign of workflow activities. Ensermu and

Moorty (2013) studied the impact of business process reengineering on performance in the Bureau of Finance and Economic Development (BoFED) in Ethiopia. The study concluded that majority of the BoFED customers were satisfied with improved organizational performance, quality of service and service cycle time.

Odede (2013), investigated the factors that are necessary for successful implementation of business process reengineering in Kenya Revenue Authority. The study focused on business process reengineering initiatives undertaken by Kenya Revenue Authority. The findings showed that business process reengineering results in revenue growth, improved technology, cost reduction, process turnaround time and improved customer service.

Awolusi and Onigbinde (2014) assessed the critical success factors for BPR in Nigerian gas and oil industry. The study intended to identify critical success factors and also evaluate the impact of CSF's and BPR on operational and overall organizational performance. Operational performance was considered the primary measure in the study while overall organizational performance was considered the secondary measure. The study employed a questionnaire as the primary data collection tool. The study findings showed that management system, project management and planning, support and competence management, IT infrastructure and organizational culture were critical success factors.

Mungai (2015) aimed at examining the role of BPR on customer relationship management, cost management and operational efficiency at UAP insurance company. The study found at that BPR helped UAP to achieve simplication of operational process, improvement in the tracking of complaints, simplication of operational process leading to customer loyalty and also improvement in process of customer acquisition and consistency in service delivery.

2.6 Summary of literature review

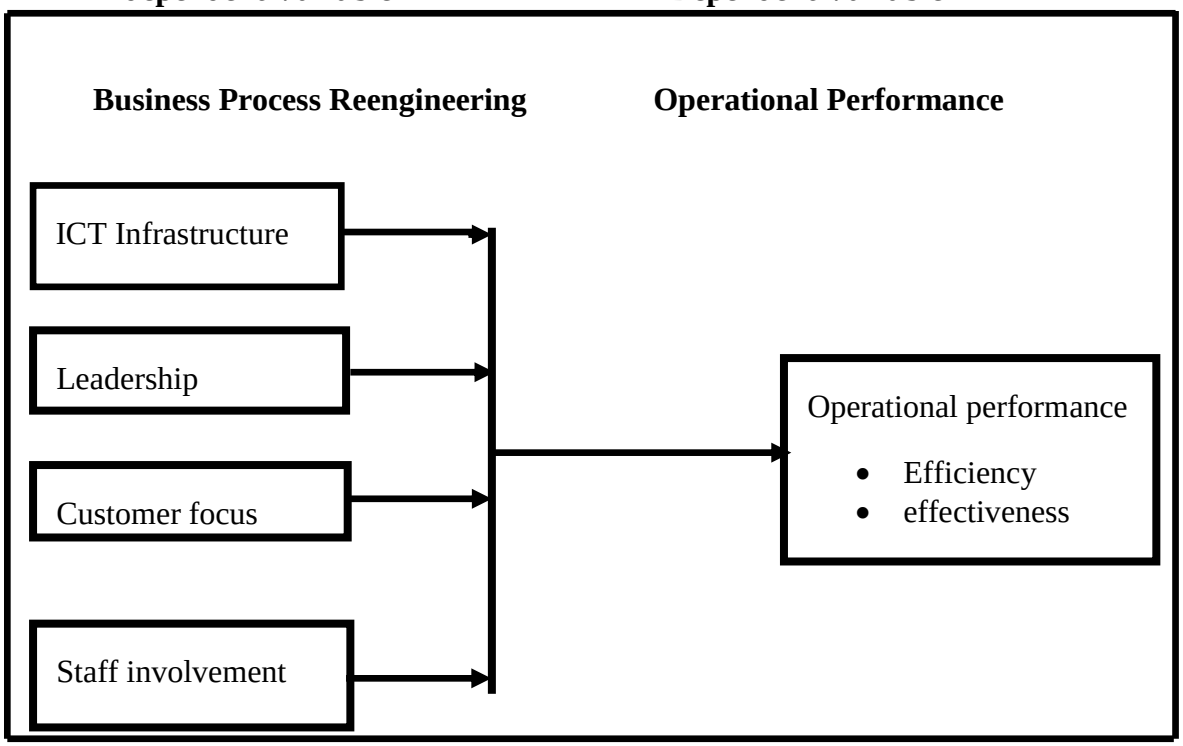
The aim of the literature review was to discuss business process reengineering and operational performance of an organization. The Kenyan economy is fast growing thus improved operational performance in the public sector and more is expected in the near future. International trends such as budgetary constraints, heightened customer

expectations, operational constraints, international competition for investments, public sector reform policies and rapidly changing business demographics have transformed the market environment in which public sector operates thus business process reengineering comes in handy to improve the operational performance in public sector specifically in Nairobi City County.

Empirical literature gives much focus on the business process reengineering by the private firms. The available literature does not establish the relationship between business process reengineering and operational performance. Additionally, there are no studies done in BPR in Nairobi City County. Therefore, informed by this information this study intends to address this knowledge gap that exists by establishing the relationship between business process reengineering and operational performance of Nairobi City County.

2.7 Conceptual Framework

Figure 1.1 Conceptual model



Source, Researcher (2016).

2.8 Research Hypotheses

The following research hypotheses were obtained from the above framework:

$H1_a$: ICT has a significant influence on Operational performance the NCC.

$H1_b$: Leadership has a significant influence on operational performance the NCC.

$H1_c$: Focus on the customer has a significant influence on the operational performance the NCC.

$H1_d$: Staff involvement has a significant influence on operational performance of NCC.

$H1_e$: Business Process Reengineering has a significant influence on operational performance of NCC.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This section of the study outlined the various methodologies that were used in this study. It gave more information on the research approach, data collection techniques used and how the analysis was carried out.

3.2 Research Design

The study used descriptive survey as its research design. According to Cooper and Shindler (2003), a descriptive survey typically seeks to ascertain perspectives of specified subject since it intended to study existing conditions, practices, beliefs and attitudes that are being held, processes that are ongoing and trends that are developing. This study aimed at identifying the level of business process reengineering in Nairobi City County and how effective it has been therefore descriptive design is the most appropriate in this study since it describes what is existing at the moment with respect to situational variables.

3.3 Population of the Study

The study population involved all the employees of Nairobi City County. The Nairobi City County has a total of 3000 employees both at the head office and county level. These employees were the target population for the study. The researcher used stratified random sampling to collect information from the eight departments which include Human resource, Operation, finance, accounts, internal audit, ICT and administration.

3.4 Sample of the study

In order to ensure that all got equal chances, the researcher used stratified random The importance of this type of sampling was to ensure that no subpopulation was omitted from the samples thus reducing bias and ensuring there are no statistical precision. From this population of 3000, a representative stratified sample of 10% respondents was chosen for the study which translated to 300 respondents. Mugenda (2008) argued that it is well selected, a sample of between 10-30% provided the sample elements are more than 30 in adequate for generalization of the findings to the whole population.

3.5 Data Collection

The study involved collection of primary data through semi structured questionnaires. The questionnaires were preferred to other data collection instruments because they were practical and helped in collection of a large amount of data from many people within a very short period in a cost effective way and also easy to quantify the results of a questionnaire (Kazdin, 2003). The semi structured questionnaire had open ended questions which allowed respondents to provide information which was deemed to be relevant for the study while closed ended questions were used in order to basically standardize the responses and save on the respondents' time taken to fill the questionnaire. The researcher exercised a lot of care and control to ensure that all questionnaires issued to the respondent were received. The questionnaires were issued to the NCC senior managers, NCC employees and the county assembly officers. They were administered using drop and pick later technique. The questionnaire sought to identify how business process reengineering has affected operation performance of Nairobi City County.

3.6 Data Analysis

All returned questionnaires were thoroughly checked for any inconsistencies and errors that may have occurred during the process of data collection. Any such errors were corrected before doing the analysis. The data then was coded in order to categorize responses into different categories. Since the data was mostly quantitative, descriptive analysis and regression analysis techniques were used to analyze the findings. The use of Statistical package for social scientist (SPSS) made it possible to analyze data. Presentations of the findings were done mostly by the use of tables, charts, percentages, tabulations, means, standard deviations and other central tendency measures. Tables were used to summarize responses for further analysis and also to comparison possible.

The following regression model was adopted;

$$\mathbf{Y = \beta_0+\beta_iX_i+\beta_{ii}X_{ii}+\beta_{iii}X_{iii}+\beta_{iv}X_{iv}\varepsilon_0} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad \mathbf{(1)}$$

Where: Y = Operational Performance of the Nairobi City County.

X_i = ICT Infrastructure

X_{ii} = Change in leadership

X_{iii} = Customer focused delivery of services

X_{iv} = staff involvement

ε_0 = error value as a result of the regression model used

$\boldsymbol{\beta}_0$ = Constant of the regression model

$\boldsymbol{\beta}_i$, $\boldsymbol{\beta}_{ii}$, $\boldsymbol{\beta}_{iii,}$ $\boldsymbol{\beta}_{iv}$ = Coefficient of the independent variables X_i, X_{ii}, X_{iii} and X_{iv}

CHAPTER FOUR
DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

The chapter consists of the general information, role of BPR on operational performance, descriptive analysis, Pearson correlation, Chi Square and regression based on the research objectives Descriptive statistics were utilized in establishing the study variables. In order to measure the level of significant associated with the study variables; a Pearson correlation coefficient was adopted. To determine whether any statistically significant relationship existed between the different variables, a Chi-Square test was carried out. To establish the predictive power of BPR on the operational performance of the Nairobi City County, a regression analysis model was adopted.

4.2 General Information

A total of 300 questionnaires were distributed to the respondents at the NCC offices. The total number of questionnaires that were returned was 219 questionnaires consisting of 73% of the total number of the questionnaires distributed. The number of the questionnaires that were not returned was attributed to the respondents who didn't wish to give their responses. A further 6 questionnaires were not analyzed for various issues such as incomplete questionnaires and the use of identifiers in the questionnaires which introduced an element of bias. Therefore the final questionnaires that were analyzed were 213 questionnaires consisting of 71% of the total distributed questionnaires.

A 5 point Likert scale was adopted for use in the questionnaire. The minimum entry was 1 and the maximum value was 5. Consequently, the data was not in any way affected by outliers and thus considered of good quality. The value for the question on whether reengineering had causes improved customer satisfaction had the highest value with a mean of 4.17. Since the value was within the maximum value, which was 5, the values were considered to be within the range. This indicated that customer satisfaction was a critical variable in the study. On the other hand the question on whether "ICT has led to increase in efficiency in the operations "had the highest standard deviation of (1.31). However, this deviation from the mean was considered insignificant. Consequently the researcher proceeded with analysis.

4.2.1 Sample Profile

The sample profile of the respondents categorized on the basis of gender, age, working experience and job designation is as follows.

Table 4. 1 Gender

Gender	Frequency	Percent
Male	105	49.3
Female	108	50.7
Total	213	100

Source: Author, (2016)

From table 4.1 above, an examination of gender diversity reveals that there was almost equal number of female respondent (50.7%) to male (49.3%) This means that the NCC is frequented by an equal number of female to males.

Table 4. 2 Age

Age	Frequency	Percent
18-30 years	36	16.9
31-40 years	141	66.2
41-50 years	24	11.3
51 years & above	12	5.6
Total	213	100

Source: Author, (2016)

An examination of the age of the respondents as represented by table 4.2 above shows that most were over 31 years, with a 66.2% of them in the 31-40 years age bracket and further 11.3% were over 41-50 years of age and a further 5.6% were over 51 years of age. The middle aged population of the respondents showed that this bracket had significant effect in the operations of the Nairobi City County. This also indicates that people under 30 years and those over 51 have insignificant control in NCC.

Table 4. 3 Job Designation

Job Designation	Frequency	Percent
Employees	131	61.5
Senior management	35	16.4
County Assembly officers	47	22.1
Total	213	100

Source: Author, (2016)

It is also notable that 61.5% of the respondents were employees, a position so desired in this research since this category of workers are the majority within the processes of the NCC and hence contain the type of information sought for by this study. This is according to table 4.3 above.

Table 4. 4 Working Experience

Working Experience	Frequency	Percent
1-5 years	48	22.5
6-10 years	95	44.6
11-20 years	59	27.7
21 years and above	11	5.2
Total	213	100

Source: Author, (2016)

From table 4.4 presented above majority (95 - 44.6%) of the respondents had interacted with NCC's processes for 6-10 years and (59 - 27.7%) illustrating that they had worked for 11-20 years. This shows that sample selected was adequately knowledgeable with the kind of information this study anticipated.

4.2.2 Correlation of Variables

A correlation analysis for the independent and dependent variable was performed. The outcomes are displayed in Table 4.5. A correlation analysis of leadership and BPR and operational performance of the Nairobi City County displayed in Table 4.5 shows leadership and BPR had a significant positive relationship , r (213) =0.17, p = 0.01, with board size at 0.05 level. This indicates that an increase in leadership led to a relatively moderate increase in operational performance of in NCC.

Table 4. 5 Correlation of Key Variables

		ICT	LEAD	FOCUS	STAFF	OPE PERF
information and communication technology	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	213				
leadership and BPR	Pearson Correlation	.784**	1			
	Sig. (2-tailed)	0				
	N	213	213			
focus in the customer	Pearson Correlation	.354**	.329**	1		
	Sig. (2-tailed)	0	0			
	N	213	213	213		
	Pearson Correlation	.297**	-0.061	.351**	1	
	Sig. (2-tailed)	0	0.378	0		
	N	213	213	213	213	
operational performance	Pearson Correlation	.179**	.173*	0.079	.347**	1
	Sig. (2-tailed)	0.009	0.011	0.251	0	
	N	213	213	213	213	213

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Author, (2016)

ICT had a significant positive relationship, r (180) = 0.18, p =0.009, with operational performance at 0.01 level. This indicates that a unit change in ICT led to a corresponding increase in operational performance in NCC, which translates to addition or removal of a unit of ICT tools and equipment and expertise significantly, changed operational performance. This study aimed to determine the significance of the relationship between ICT and operational performance. This was determined by performing a Chi-Square test for independence and the output displayed in Table 4.6 below.

Table 4. 6 Chi-Square test of ICT and OP

	Value	Df	Asymp. Sig. (2-sided)	Monte Carlo Sig. (2-sided)			Monte Carlo Sig. (1-sided)		
				Sig.	99% Confidence Interval		Sig.	99% Confidence Interval	
					Lower B	Upper B		Lower B	Upper B
Pearson Chi-Square	2274.088[a]	180	0.01	.01[b]	0.001	0.001			
Likelihood Ratio	991.51	180	0.01	.01[b]	0.001	0.001			
Fisher's Exact Test	704.351			.01[b]	0.001	0.001			
Linear-by-Linear Association	6.802[c]	1	0.009	.008[b]	0.006	0.01	.004[b]	0.002	0.005
N of Valid Cases	213								

Source: Author, (2016)

The Pearson Chi-Square row shows that, χ^2 (1, N=180) = 2274.09, p = <.01. Table 4.6 shows the p= <0.05 and therefore there was a statistically significant relationship between ICT and operational performance. This shows that ICT had a significant relationship with operational performance at 99% confidence interval. The relationship between leadership and operational performance was determined. This was determined using the Chi-Square test for independence of association and the results displayed in Table 4.7 below. The Pearson Chi-Square row illustrates that, χ^2 (1, N=120) =1486.22, p = <.01. Table 4.4 shows, p = <0.05, hence there is a statistically significant relationship between leadership and operational performance. This meant that leadership had a significant relationship with operational performance at 99% confidence interval.

Table 4. 7 Chi-Square of Leadership and OP

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1486.215[a]	120	.000
Likelihood Ratio	816.528	120	.000
Fisher's Exact Test	596.744		
Linear-by-Linear Association	6.341[c]	1	.012
N of Valid Cases	213		

Source Author, (2016).

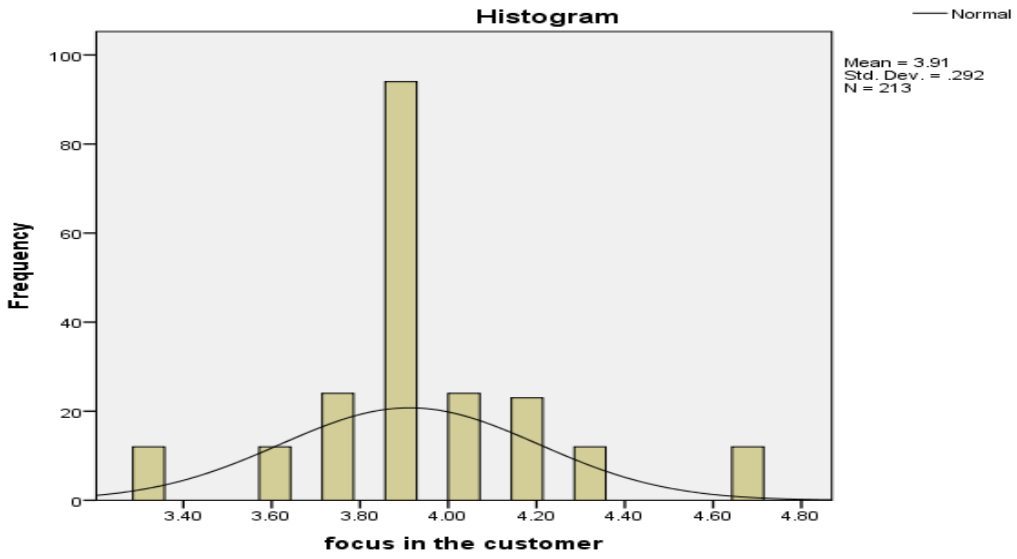
4.3 Association between Business Process Reengineering and Operational Performance

This sub-section presents the results of test of the relationship between business process reengineering and operational performance. The study assumed a linear association between the predictors (Business process reengineering) and dependent variables (operational performance) and employed Ordinary Least Square (OLS) estimation method in determining the association between the predictor, moderating and dependent variables. The OLS estimation method was used to develop a regression line of best fit which minimized model errors.

Linearity of the data set was then determined as part of the assumptions associated with the linear regression analysis model. Scatter plot of linearity was used to determine linearity of the data and it showed that business process reengineering had linear association with the operational performance. The other assumption tested was that the error term (ε_i) are normally and identically independently distributed with a mean of zero and constant variance σ^2 (homoscedasticity). The scatter plot indicated that the variance of the error term was concentrated along the line of best fit. This illustrated that error variance in operational performance is uniform along business process reengineering. Consequently, the was free from heteroscedasticity

The assumption of normal distribution was then performed. Normality was tested using histograms with a superimposed normal curve were. The outcomes are presented in Figure 4.1 and Figure 4.2

Figure 4.1 Normal distribution of focus on customer



Source: Author, (2016)

A normal distribution curve was observed on the standardized residuals. The variables were concentrated on the centre of the histogram. The graphical illustration in Figures 4.1 indicates that the data followed a normal distribution. Consequently, it was considered appropriate for regression analysis. The study therefore proceeded since the dataset did not violate the assumption of regression.

Finally, no significant outliers were found on the data set. Descriptive statistics was used to analyze the existence of outliers. As indicated on table 4.8, both the minimum and maximum values of the data set were within the 1-5 range provided by the 5 point Likert scale. Consequently, no outliers were found on the data and the study proceeded to regression analysis.

Table 4. 8 Descriptive statistics of key variables

	N	Min	Max	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
information and communication technology	213	1.36	4.21	3.4859	0.04501	0.65692
leadership and BPR	213	1.13	4.38	3.7236	0.05749	0.83903
focus in the customer	213	3.29	4.71	3.9121	0.02004	0.29245
Staff involvement	213	2.00	3.33	2.7285	0.02514	0.36696
operational performance of NCC	213	2.89	4.17	3.5076	0.02409	0.35151
Valid N (list wise)	213					

Source; Author 2016

4.3.1 Regression Analysis

For the purpose of identifying the important variables influencing the dependent variables, multiple regression was used. The study had four independent variables which include Information technology, leadership, focus on customer and staff involvement that were used to explain the relationship between independent variable and dependent variable. A multiple regression analysis resulted in model summary of R^2 in table 4.9 below ANOVA output presented in table 4.10, and were used to interpret statistical significance of the regression in the model. The model of summary of the four independent variables was examined in Table 4.10 below. The table provided R, R^2, Adjusted R^2, the standard error of estimate, and the Durbin Watson statistic which was used to determine how well a regression model fitted the data

Table 4.9 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.877[a]	0.769	0.764	0.34664	0.332	6.994	1	211	0.09	1.514

a. Preditors: (constant), ICT, Leadership, Staff, Focus

b. Dependent Variable: operational performance

Source : Author , (2016)

Table 4.10 ANOVA

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	98	4	24.499	173	.0019[b]
	Residual	29.5	208	0.142		
	Total	127	212			

a. Predictors: (Constant), ICT, Leadership, Staff, Focus

b. Dependent Variable: operational performance

Source: Author, (2016)

The model in the table 4.9 above showed that the resulting Durban-Watson statistic was 1.51, which was approximate to 2 and hence the residuals in the data set indicated no multicollinearity. The significance, F (4,208) = 173, p= 0.0019, of model one. This simply meant that the independent variables, that is, ICT, leadership, focus on customer and staff involvement had a significant influence over operational performance. The adjusted coefficient of determination (R^2) in model above showed that R^2= 0.769, implying that, 76.9% of operational performance in Nairobi City County is linked to ICT, leadership, staff involvement and focus on customer.

The results as indicated in table 4.10 above shows that the resulting, F (4,208) = 172.910 *p*=0.019. Therefore, the model 1 above was significant in explaining the linear relationship between dependent and independent variables. This means that information technology, focus on customer, staff involvement and leadership had linear relationship with operational performance of NCC.

The table below 4.11 was used to examine the coefficients of ICT, leadership, staff involvement and focus on customer in NCC.

Table 4.11 Coefficients of independent variables and dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
	(Constant)	3.220	.129		24.687	.311	2.920	3.427
	ICT	.096	.052	.179	2.645	.009	.240	.167
	LEAD	.720	.028	.173	2.551	.011	.016	.128
	STAFF	.333	.062	.347	5.383	.001	.211	.455
	FOC	-.095	.082	-.079	-1.151	.251	.068	.258

a. Dependent Variable: operational performance

Source: Author, (2016)

Several conclusions were made from the table above. The coefficients of ICT under model 1 in Table 4.11 confirms that ICT had significant coefficients with an associated, *p* = 0.009. The study therefore failed to reject $H1_a$ at 95% confidence level, meaning there was a significant relationship between ICT and operational performance. The coefficients of leadership under the table above shows that the associated, *p = 0.011,* hence significant. The study therefore failed to reject $H1_b$ at 95% confidence level, meaning there was a significant relationship between leadership and operational performance on a simple regression relationship. An evaluation of the coefficients of focus in customer under model 1 in Table 4.17 shows that the associated, *p = 0.25*, hence non-significant.

The study failed to accept $H1_c$ at 95% confidence level, indicating there was no significant relationship between focus in customer and operational performance on a direct regression relationship. The table above brings out the coefficients of staff involvement under model 1 and it shows an associated p = .001, hence significant. This study therefore failed to reject $H1_d$ at a 95% confidence level, hence concluded that Staff involvement had a significant influence on operational performance on a direct regression relationship.

In conclusion, the study found out that information technology, staff involvement and leadership as aspects of business process reengineering had positive influence on the operational performance of Nairobi City County. On the other hand, focus on customer had no relationship with the operational performance of NCC.

4.4 Discussion

This study aligned its findings with other studies on business process reengineering done by both private and public sectors. It focused on four main variables which includes; Information Communication Technology, leadership, staff involvement and focus on customers. The variables are linked to the previous studies done as outlined below.

4.4.1 Information Communication Technology

This study concluded that information communication technology had a significant relationship with the operational performance of the Nairobi City County. The researcher found out that the significant value = 0.009 thus showed that there was significant relationship. There are several researchers who have come up with the similar findings for example; a study done by Jepkemoi (2014) on organizational performance in the Kenyan judiciary, showed that information technology had 74% influence on the improvement of its operations. A similar finding was demonstrated by Bhattacharjee (2012) where computerization and information technology was found to play a key role in the improvement of the quality and delivery of justice.

4.4.2 Leadership

The researcher in this study concluded that leadership had a positive relationship with the operational performance of the Nairobi City County. From the analysis the researcher found out that leadership had significant relationship with the operational performance with a significant value of 0.11. There are also more researchers who obtain similar findings in their organizations of study. According to Jepkemoi (2014), leadership had 61% positive influence on improvement of operational performance of the judiciary. The finding of this study corresponds with the findings of Grover et al. (1995) and Guimareas and Bond (1996) that management support and commitment are critical in the improvement in organizational performance. Shipper & Manz (2002) observed that empowering leaders use encouraging behaviours that build competence and confidence in their organizations. Moreover, Wilcocks (2002) and Ahadi (2004), observed that that the radical changes required for successful implementation of BPR calls for significant staff involvement for the own up tasks and responsibilities to achieve the desired goals.

4.4.3 Staff involvement

The researcher found out that the staff involvement in business reengineering process had positive relationship with operational performance with a significant value of 0.001. There are other researchers who have linked staff involvement to improvement of the operation performance of the firms. According to Zucker (2002), organizational communication and the degree to which employees are informed, is closely linked with employee performance. The study done by Momanyi (2012) revealed that there is significant relationship between staff involvement in Business reengineering process implementation in KRA. The study further identified that the staff involvement had 76% influence on the successful implementation of business process reengineering which further aided in improving the organizational performance of KRA.

4.4.4 Focus on customer

This study observed that focus on customer had negative relationship with the operational performance of the Nairobi City County with a significant value of 2.51 which means that any change in focus on customer does not have any effect on the operational performance of the Nairobi City County. According to Kumar (2002), focus on customer had a positive influence on the organizational performance of the Ethiopia Public banks.

However, this differs from the findings of this study that shows that there is no relationship between the focus on customer and the operational performance. On the other hand, this study reveals that focus on customer when done with other variables have an impact of the operational performance.

CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter brings out a discussion on the findings of this research that has been extracted from the data analysis in the previous chapter. Key findings will be summarised and the researcher's conclusions and recommendations arising from the research process.

5.2 Summary of the Major Findings

5.2.1 Effect of ICT investments on the performance of NCC

Looking at the first variable of BPR in this study which was to determine the relationship between ICT investments and the operational performance of NCC in Kenya, this study found out that an investment in Information and Communication technology in NCC had a significant influence on the operational performance of NCC. An assessment of the same variable in the presence of other subcomponents of BPR also gave an indication that ICT had a significant relationship with the operational performance of NCC.

A similar finding was demonstrated by Bhattacharjee (2012) where computerization and information technology was found to play a key role in the improvement of the quality and delivery of justice. Zucker (2002) observed that organizational communication and the degree to which employees are informed, is closely linked with employee performance. This study found that the respondents agreed that improvement in communication had contributed to NCC's performance.

5.2.2 Effect of change in leadership on the performance of NCC

The second BPR variable used was to find out the relationship between the change in leadership of NCC and its operational performance. In this regard the study established that the revamped leadership within NCC starting with the change of the constitution, the introduction of the system of governing the county and the introduction of directorates actually had a significant influence on the operational performance of NCC. When this variable also examined in the presence of other sub component variables describing BPR, this study also came up with a finding that the change in leadership had a significant relationship.

This finding corresponds with the findings of Grover et al. (1995) and Guimareas and Bond (1996) that management support and commitment are critical in the improvement in organizational performance. Shipper and Manz (2002) observed that empowering leaders use encouraging behaviours that build competence and confidence in their organizations. This is the kind of leadership support that the respondents agreed has been provided by the new leadership in NCC.

5.2.3 Relationship between customers focused delivery of services within NCC and its operational performance

On the third variable which was to establish the relationship between customers focused delivery of services within NCC and its operational performance, found out that customer focused delivery of services within NCC in itself had no significant influence on the operational performance. But when this same variable was analysed in the presence of the composite model of all other components explaining BPR in this study, it was found out that it actually had a significant relationship with operational performance of NCC. That means that there was a significant improvement in the level of public confidence on the institution. Similar findings were recorded by Pearce and Robinson (2010), in that improvement in the organizational performance was within the organization's internal environment. Balogun (2004) concluded that majority of organizational changes can be considered to be structural changes.

5.2.4 Relationship between the staff involvement within NCC and its operational performance

The last variable of BPR was used to determine the relationship between the staff involvement within NCC and its operational performance. To this extent the study determined that the involvement had a significant influence on the operational performance of NCC. At the same time when examining the variable staff involvement in the presence of the other variables that helped to define BPR in this study. We found out that it had a significant relationship with operational performance. This agrees with the observation of Wilcocks (2002) and Ahadi (2004), who observed that that the radical changes required for successful implementation of BPR calls for significant staff involvement for the to own up tasks and responsibilities to achieve the desired goals.

5.3 Conclusions

This study had two major objectives, the first one was to determine the extent of business process reengineering implementation in Nairobi City County that used four variables of BPR to measure the level which included; ICT infrastructure, focus on customer, staff involvement and leadership. It was handled by the use of descriptive statistics where standard deviations were applied. The second objective was to determine the relationship between business process reengineering and operational efficiency which was handled by regression model.

From the above findings, this study established that, business process reengineering in its entirety had a significant influence on operational performance of NCC. The massive investment in ICT tools and equipment had a significant influence on the operational performance of NCC. This means that the massive investment of ICT tools and equipment, the training of the county assembly officers and staff within NCC on ICT issues, the enhanced use of ICT materials did not go to waste. Revamping the top leadership of NCC also had a significant influence upon the performance of NCC. The efforts that the new regime in NCC has put in cannot be over emphasised, the staff seems to be rejuvenated and well informed about their specific roles and responsibilities. This has brought about a new wave of servant leadership within NCC.

Customer focused delivery of services within NCC seemed to have no significant influence on the operational performance of NCC but on a composite model it was significant. This means that focussing the delivery of services to the customer in itself adds no value but when it is made a goal of the organization and pursued together with other goals it makes meaning and adds value to the organization. This led to the increase in the public confidence to NCC and a change in perception. Finally, enhancing the staff involvement to NCC also had a significant influence on the operational performance of NCC. Staff involvement is the bed rock of any business process reengineering and when adequately done within the expected time, the pillars of restructuring are well implemented since the staffs are able to own up the ideas and results as well. To this NCC is not alone.

5.4 Recommendations

Based on the findings of this study, I recommend that: organizations that are carrying out Business process reengineering should take time to invest in ICT tool and equipment, and train their staff on how to exploit ICT resources to bring down the cost of operations, enhance efficiency, increase the speed at which operations are carried out and increase the quality of goods and services. Secondly, every successful organization depends on the direction of the top leadership to be steered to higher grounds. In as much as NCC is not yet there, the strides made are appreciated. Therefore Organizations should take time to recruit top leadership with a vision.

An old adage goes, *"Customer is king"*, which simply means that a given organization should take time to provide goods and services aimed at satisfying the needs of customers at all times. To this end they are expected to carry out a customer needs analysis and find out means and ways of meeting them. Without the customer the organization ceases to exist. In as much financial resources are necessary when carrying out business process reengineering, organizations should put in place internal control measures to curb corruption, misallocation and misappropriation of funds. When funds are direct to the right cause, value is attained.

5.5 Limitations of the study

The respondent in the Nairobi City County were found to be very busy people with almost no time to spare to fill in the questionnaire. Therefore, ensuring that they filled the questionnaires called for a lot of patience and understanding. Some respondent suspiciously wondered who the researcher was and what the data was actually intended for. The questionnaires were therefore only responded after assurance that the data was meant purely for academic research and would be treated with utmost confidence. Overall, the above limitations did not have any negative influence on the quality of data and the results of the study.

5.6 Areas for Further Research

There are many factors that define business process reengineering like, financial resources on the BPR process, change in methods and tools, and enhancement of communication. Future studies should focus on these variables.

REFERENCES

Abdurezak Mohammed Kuhil, Business process reengineering and organizational performance: *a case of Ethiopian public banking sector*, 2013.

Ahadi, H.(2004), "An examination of the role of organizational enablers in Business Process Reengineering and the impact of Information Technology" *Information Resources Journal Vol. 17* No. 4 pp1-19

Al-Mashari, Majed, Zahir, and Mohamed (2001), "Business process reengineering: a survey of international experience." *Business Process Management Journal*, December 2001, pp. 437-455.

Arora,S.Kuma, S (2004),"Reengineering: A focus on enterprise integration", ProQuest Computing. Sep/Oct; 30, 5; pg. 54.

Attaran, M. (2004). Exploring the relationship between information technology and business process reengineering. *Information and Management*, 41(5), 585–596.

Attaran, M. and Wood, G.G. (1999) "How to succeed at Reengineering" *Management decision vol 37(10)* 752-757

Awolusi, O. D., & Onigbinde, I. O. (2014). Assessment of Critical Success Factors of Business Process Re- Engineering in Nigerian Oil and Gas Industry. *Interdisciplinary* Journal *of Contemporary Research in Business*, *3*(3), 104–120.

Barret J. (1994), Process visualization: *getting the vision right is key, information systems management, spring 14-23*

Berrington, C. and Oblich, R. (1995), "Translating reengineering into bottom-line results", *Industrial Engineering, January*, pp 24-7

Bridgid J. Effects of organizational change on performance of the Kenyan judiciary: a Case study of Milimani law courts.

Carr D. (1993), Managing for effective business process redesign. *Cost management*, fall 16-21

Carr, David K., and Henry J. Johansson (1995), Best Practices in Reengineering*: What Works and What Doesn't in the Reengineering Process*. McGraw-Hill, 1995

Chase, R. B., Jacobs, F. R., & Aquilano, N. J. (2004). *Operations Management for Competitive Advantage (10th ed.)*. New York: McGraw-Hill/Irwin.

Cooper, R., and Markus, L.,1995. Human Reengineering, *Sloan Management Review 36*,2,39-51.

Cooper, D. R. and Schindler, P. S. (2003), *Business Research Methods*, 8ed. New Delhi, Tata McGraw-Hill.

Covert M. (1997), successfully performing Business Process Reengineering, *Visible systems corporation, 201* Spring Street Lexington MA 02421 USA

Dale, M. (1994). "The re-engineering route to business transformation". 9th edition.

Davenport, T & Short J (1990),*The new industrial engineering; information technology and business reengineering process redesign*, sloan management review summer, pp 11-27.

Davenport, T (1993a) Need for Radical Innovation and continuous improvement – "*Integrate Process Reengineering and TQM*" *planning review Vol 21* No.3 pp 6-12

Davenport, T.H. (1993), Process *innovation-Reengineering Work through Information Technology*, Cambridge, Mass: Harvard Business School Press.

Davidson, W. (1993). "Beyond re-engineering: the three phase of business transformation". *IBM*

Dey P. K. (2001). Reengineering Materials Management, A case study on an Indian Refinery. *Business Process Management Journal*, 7(5), 394-408

Dodaro G.L, & Crowley B.P, (1997), *Business process reengineering, Version 3,* United States general accounting office

Donald Waters, (2002); Operation management, *producing goods and services*.

Dooley K and Johnson D, (2001), Changing the New Product Development Process, "*Measuring Business Excellence*, Vol. 5 Iss 4 pp. 32 – 38.

Ehrbar, A. (1993). "Reengineering gives firms new efficiency, workers the pink slip", *The Wall Street Journal*, 221(51)

Etcoff, N., (2005), Employee commitment and productivity at the workplace: *Harvard and Massachusetts General Hospital Researchers. Journal of American Psychology, Vol 39 No.2*

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

Grover, Varun, and Manuj K. Malhotra.(1997) "Business Process Reengineering: A Tutorial on the concept, Evolution, Method, Technology and application." *Journal of Operations Management, August,* pp. 193-213.

Hammer, M, & Champy, 1. (1993) Reengineering the Corporation: *A Manifesto for Business*

Hammer, M,(1990) Reengineering Work: *Don't automate, obliterate. Harvard Business Review, July-August, 104-112*

Hammer, M. & Staton, (1995) *The Reengineering Revolution* (PP336); New York. Harper Collins Publishers

Hammer, M. and Champy, J. (2004), "Reengineering the Corporation: *A Manifesto for Business Revolution*", Harper Business, New York 1993; revised updated edn, HarperCollins,

Harrington, H. J. (1991). *Business process improvement: The breakthrough strategy for 64 Total quality, productivity, and competitiveness*. New York: McGraw-Hill, Inc.

Jason, R. (1992), *How Reengineering Transforms Organizations to Satisfy Customers, National* Productivity Review.

Johnson, G., Scholes, K., Whittington, R., (2006), *Exploring Corporate Strategy, Texts and Cases*, Seventh Enhanced Media Edition, Prentice Hall Inc.

Jones G.R. (2010) *Organizational theory, design and change*, 6th edition; Pearson Education.

Katzenbach J.R & Smith D.K, (1993), *the wisdom of teams creating the high performance organization*, Harvard Business School, Boston

Lafasto, M. J. and Larson, C. (2001), *when teams work best*. Thousand Oaks. C.A Sage

Larsen, B. (2003). *Courts of the Future; Law and Information Technology.* Swedish View: An anthology produced by the IT Law Observatory of the Swedish ICT Commission. Stockholm, *SOU: 112, pp 225–238.*

Lawrence, P., Lorsch, J. and Thompson, J.D. (2011) Organization and environment: *managing differentiation and integration,* 12th edition, Boston, M.A: Harvard University

Linden, R. (1993). "Business process re-engineering: newest fad or revolution in government?". *Public Management*, November, pp. 9-12.

Marcus, D.K., (2013), Group Dynamics: Theory, Research and Practice; *Examining the effects of group influences, 39-42*

Macdonald, J. (1995). *Together TQM and BPR are Winners*. MCB University press,7(3),21

Motwari J, Kumar A, Jiang J, and Youssef M, (1998), *Business process reengineering: a theoretical framework and an integrated model, international journal of operations and production management 18(9/10) 964-977*

Mugenda O.M. & Mugenda, A.G. (2003), *Research Methods: Quantitative and Qualitative approach,* Nairobi: Act press.

Mungai E. Wanjiku (2015), business process re-engineering and operational performance at UAP insurance company.

Nigel Slack, Stuart C & Robert J (2001), Operation management 10th edition.

Nzewi, H. N., Nzewi, U. C., & Moneme, P. (2015). Business Process Reengineering and Performance of Courier Service Organizations in Anambra State, Nigeria.

Odede, V. (2013). Business Process Re-Engineering Implementation and Organizational Performance; The Case of Kenya Revenue Authority. *Journal of Business and Management, 2*(3), 41–45.

O'Neill, P., & Sohal, A. S. (1999). Business Process Reengineering: a review of recent literature. *Technovation,* 19, 571-581.

Ozcelik, Y. (2009). "Do business process reengineering projects payoff? Evidence from the *Information Resources Journal*

Rastogi P, (1994), *Nature, Significance and rationale of Business process reengineering, productivity, 35(3)467-476*

Roberts L. (1994*), process reengineering: the key to achieve breakthrough success, Quality press, Milwaukee*

Sarah, A.L., Toman, M. (2005). Gestalt Therapy: *History Theory and Practice*. Thousand Oaks, C.A Sage Publications, Inc

Talwar, R. (1993), "Business Re-engineering – a strategy-driven approach", *Long Range Planning,* Vol. 26. No. 6, pp. 22-40

Tharanga, T. (2010). "*Importance of business process reengineering*". http//www.ft.1k/

United States". *International Journal of Project Management* without considering them". *Inform,* April, 57- 64.

Weicher M, Chu W, Lin W.C, Le V, and Tu D. (1995), business process reengineering analysis and recommendations, Baruch college. Downloaded from http://www.netlib.com/bprl.htm www.nairobi.go.ke

Appendix I: Introductory Letter

Irene Mwihaki Mwaura
C/o University of Nairobi,
P.O Box 30197-00100,
Nairobi.
Kenya.

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

REF: RESEARCH STUDY

I am a student pursuing a Master's degree in Business Administration at the University of Nairobi. In partial fulfillment to the award of the Master's degree, I am required to carry out a research on "Business Process reengineering and operational performance at Nairobi City County."

I kindly request your assistance by availing your time to respond to the questionnaire. A copy of the final findings will be made available to you on request.

Yours faithfully

Irene Mwihaki Mwaura.

Appendix II: Questionnaire

INSTRUCTIONS

Please tick the most appropriate response to questions that give possible answers and write down your answers in the spaces provided in case of open ended questions. Your response to the questions is meant only for this research and will be held with utmost confidentiality.

SECTION A: GENERAL INFORMATION

Tick [√] as appropriate

1 Gender

Male { }

Female { }

2 Indicate age bracket

18-30 years { }

31-40 years { }

41-50 years { }

Above 51 years { }

3 Working experience

Below 1 year { }

1-5years { }

6-10 years { }

11-20 years { }

21 and above { }

4 Job Designation

Senior Manager { }

County Assembly officer { }

Employee { }

SECTION B: BUSINESS PROCESS REENGINEERING IN NAIROBI CITY COUNTY

Using the following 5-point Likert scale indicate to what extent you agree with the following statements.

1 = Strongly Disagree, 2 = Disagree, 3 = **Not Sure, 4 = Agree, 5 = Strongly Agree**

5 To what extent do you agree that a reorganization of the Nairobi City County is consistent with its mandate?

Strongly disagree { } Disagree { } Not sure { }
Agree { } Strongly agree { }

6 To what extent do you agree that the design of structural changes in the Nairobi City County were radical?

Strongly disagree { } Disagree { } Not sure { }
Agree { } Strongly agree { }

7. To what extent do you agree that a reorganization of the Nairobi City County has led to acceleration of information flow?

Strongly disagree { } Disagree { } Not sure { }
Agree { } Strongly agree { }

8. To what extent do you agree that a reorganization of the Nairobi City County has led to ownership of processes by the employees?

Strongly disagree { } Disagree { } Not sure { }
Agree { } Strongly agree { }

To what extent do you agree with the statement that structural changes in Nairobi City County has led to,

1 = Strongly Disagree, 2 = Disagree, 3 = **Not Sure, 4 = Agree, 5 = Strongly Agree**

NO.	**Structural changes**	**1**	**2**	**3**	**4**	**5**
9.	Clarity in reporting lines?					
10.	Public confidence?					
11.	Reduction of Corruption?					
12.	Satisfactory service delivery?					
13.	Provision of improved tools and equipment for working?					

14. In your opinion, has Nairobi City County improved in service delivery?

    Yes { } No { }

15. To what extent do you agree that change management was properly handled within the Nairobi City County?

Strongly disagree { } Disagree { } Not sure { }

Agree { } Strongly agree { }

16. In your opinion, did the top leadership give all the necessary support to the change management process?

    Yes { } No { }

17. To what extent do you agree that change management process within the Nairobi City County faced resistance from its stakeholders?

Strongly disagree { } Disagree { } Not sure { }

Agree { } Strongly agree { }

18. To what extent do you agree that the Nairobi City County organizational culture influences the speed at which change is carried out?

Strongly disagree { } Disagree { } Not sure { }

Agree { } Strongly agree { }

19. To what extent do you agree that the reorganization of the Nairobi City County has made problem solving better?

Strongly disagree { } Disagree { } Not sure { }

Agree { } Strongly agree { }

SECTION C: INFORMATION AND COMMUNICATION TECHNOLOGY AND BPR

20. To what extent do you agree that integration of Information and communication technology in organizational processes and procedures is necessary?

Strongly disagree { } Disagree { } Not sure { }

Agree { } Strongly agree { }

21. In your opinion, has the Nairobi City County provided adequate ICT tools and equipment?

Yes { } No { }

If NO, please explain. ……

……

…….....

22. To what extent do you agree that, ICT strategy is well aligned to the transformation strategy?

Strongly disagree { } Disagree { } Not sure { }

Agree { } Strongly agree { }

To what extent do you agree that the introduction of information and communication technology in Nairobi City County has led to,

1 = Strongly Disagree, 2 = Disagree, 3 = **Not Sure, 4 = Agree, 5 = Strongly Agree**

NO.	ICT	1	2	3	4	5
23.	A reduction of repetitive tasks?					
24.	An increase in efficiency in the operations?					
25.	Simplified operation procedures?					
26.	Enhanced the accuracy of data captured?					
27.	Enhanced the speed of data capturing?					
28.	Enhanced the process of data retrieval?					
29.	Has made storage of data easier?					
30.	Has improved revenue tracking?					
31.	Has reduced the traffic within the offices because members of the public can access information and licences online?					
32.	Improved on innovation and creativity?					
33.	Has enhanced the motivation of staff?					

SECTION D: LEADERSHIP AND BPR.

34. To what extent do you agree that the top leadership within the Nairobi City County is competent enough to undertake the change adequately?

Strongly disagree { } Disagree { } Not sure { }

Agree { } Strongly agree { }

To what extent do you agree that new leadership in Nairobi City County has led to,

1 = Strongly Disagree, 2 = Disagree, 3 = **Not Sure, 4 = Agree, 5 = Strongly Agree**

NO.	**Leadership**	**1**	**2**	**3**	**4**	**5**
35.	Enhanced professionalism among employees when dealing with clients?					
36.	Enhanced motivation among the staff?					
37.	Has provided adequate direction and support in aid of on-going reforms?					
38.	Has made public confidence in the Nairobi City County to increase?					
39.	Has led to the improvement of service delivery?					
40.	Encouraged all stakeholder involvement in the process of change?					
41.	Encouraged teamwork within the work place?					

SECTION E: FOCUS ON THE CUSTOMER

42. To what extent do you agree that the reengineering going on at the Nairobi City County is aimed at giving better services to their customers?

Strongly disagree { } Disagree { } Not sure { }

Agree { } Strongly agree { }

To what extent do you agree that customer focused reengineering has led to,

1 = Strongly Disagree, 2 = Disagree, 3 = **Not Sure, 4 = Agree, 5 = Strongly Agree**

NO.	**Focus on the Customer**	**1**	**2**	**3**	**4**	**5**
43	Access to and expeditious delivery of efficient service?					
44	A reduction of average time taken to serve the residence of Nairobi?					
45	Has enhanced the confidence of the customer on the Nairobi City County?					
46	An analysis of customer needs with a view to meeting them?					
47	An introduction of regular Monitoring and evaluation of service delivery with a view to ensuring quality?					
48	Determination and prioritization of most important aspects of service delivery?					

SECTION F: STAFF INVOLMENT

49. To what extent do you agree the Nairobi City County employees have access to enough information to perform its operations effectively?

Strongly disagree { } Disagree { } Not sure { }
Agree { } Strongly agree { }

50. In your opinion do you agree that Nairobi City County employees are thoroughly trained to handle the new tasks?

Yes { } No { }

51. To what extent do you agree that the performance of Nairobi City County has improved in terms of effectiveness and efficiency since implementation of business process reengineering?

Strongly disagree { } Disagree { } Not sure { }
Agree { } Strongly agree { }

52. To what extent do you agree that staffs are motivated to work since the implementation of business process re-engineering?

Strongly disagree { } Disagree { } Not sure { }
Agree { } Strongly agree { }

SECTION G: OPERATIONAL PERFORMANCE OF THE NAIROBI CITY COUNTY

53. To what extent do you agree that operational performance in Nairobi City County has generally improved?

Strongly disagree { } Disagree { } Not sure { }
Agree { } Strongly agree { }

To what extent do you agree that?

1 = Strongly Disagree, 2 = Disagree, 3 = **Not Sure, 4 = Agree, 5 = Strongly Agree**

NO.	Operational Performance	1	2	3	4	5
52.	There has been a reduction in time serve clients?					
53.	Services are now focussed on the customer?					
54.	Licencing processes and procedures have been simplified?					
55.	Revenue collection has been simplified?					
56.	Employees are more willing to serve clients efficiently?					
57.	ICT infrastructure has been improved considerably?					
58.	ICT has now been adopted as a core means to the provision of services?					
59.	Employees are fully aware of the new processes?					
60.	Top leadership is more engaged to deliver services effectively and efficiently?					
61.	The human resource capacity issues have now been resolved?					
62.	The working conditions within Nairobi City County have improved?					
63.	Stakeholders of Nairobi City County are involved in decision making?					
64.	Communication within the departments has improved?					
65.	The organizational structure has been simplified?					
66.	Coordination within directorates has been enhanced?					
67.	The concept of continuous improvement has been embraced by the leadership?					
68.	The levels of corruption within the County officers have reduced?					

END

THANK YOU.