

**Effects of business process re-engineering on public sector service delivery in
Kenya: a case of Teachers Service Commission**

ELIZABETH ASIKO WANYANGA

**AN APPLIED RESEARCH PROJECT SUBMITTED IN PARTIAL
FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE
MASTER OF BUSINESS ADMINISTRATION DEGREE IN THE BUSINESS
SCHOOL OF AFRICA NAZARENE UNIVERSITY**

SEPTEMBER 2019

DECLARATION

I declare that this applied research project is my original work and that it has not been presented in any other university for academic credit

Signature:----- Date:-----

Elizabeth Wanyanga

SUPERVISOR'S DECLARATION

This applied research project is submitted for examination with my approval as the university supervisor

Signature:----- Date:-----

Dr. Agnes Mutiso

AFRICA NAZARENE UNIVERSITY,

NAIROBI, KENYA

DEDICATION

This study is dedicated to my loving parents and son.

TABLE OF CONTENTS

<u>DECLARATION</u>	ii
<u>DEDICATION</u>	iii
<u>TABLE OF CONTENTS</u>	iv
<u>ABSTRACT</u>	vii
<u>ACKNOWLEDGEMENT</u>	viii
<u>LIST OF TABLES</u>	ix
<u>LIST OF FIGURES</u>	x
<u>LIST OF ABBREVIATIONS</u>	xi
<u>DEFINITION OF TERMS</u>	xiii
<u>CHAPTER ONE: INTRODUCTION AND BACKGROUND OF THE STUDY</u>	14
<u>1.1 Introduction</u>	14
<u>1.2 Background of the Study</u>	14
<u>1.2.1 Teachers Service Commission</u>	17
<u>1.3 Statement of the Problem</u>	18
<u>1.4 Objectives of the Study</u>	20
<u>1.4.1 General Objective</u>	20
<u>1.4.2 Specific Objectives</u>	20
<u>1.5 Research Questions</u>	20
<u>1.6 Significance of the Study</u>	21
<u>1.7 Scope of the Study</u>	21
<u>1.8 Limitations of the Study</u>	22
<u>1.9 Delimitation of the Study</u>	22
<u>1.10 Conceptual Framework of the Study</u>	22
<u>CHAPTER TWO: LITERATURE REVIEW</u>	25
<u>2.1 Introduction</u>	25
<u>2.2. Theoretical Review</u>	25
<u>2.2.1 Resource Based View Theory</u>	25
<u>2.2.2 Contingency Theory</u>	28
<u>2.2.3 Technology Acceptance Model (TAM)</u>	28
<u>2.3 Empirical Review</u>	30
<u>2.3.1 Process Management and Public Sector Service Delivery</u>	30
<u>2.3.2 BPR Resources and Public Sector Service Delivery</u>	32
<u>2.3.3 ICT System and Public Sector Service Delivery</u>	34
<u>2.3.4 Organization System and Public Sector Service Delivery</u>	36
<u>2.4 Summary of the Reviewed Literature</u>	40
<u>2.5 Knowledge Gap</u>	40
<u>CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY</u>	41
<u>3.1 Introduction</u>	41
<u>3.2 Research Design</u>	41

3.3 Research Site and Rationale	42
3.4 Target Population	42
3.5 Sampling Procedure	42
3.6 Sample Size	42
3.7 Data Collection Procedures	44
3.8 Research Instruments	44
3.8.1 Piloting of Research Instruments	44
3.8.2 Validity of the Research Instrument	45
3.8.3 Reliability of the Instrument	45
3.9 Data Analysis and Presentation	45
3.10 Ethical Considerations	47
<u>CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION OF FINDINGS</u>	48
4.1 Introduction	48
4.2 Response Rate	48
4.3 Demographic Characteristics	49
4.3.1 Distribution of the Respondents Based on the Gender	49
4.3.2 Distribution of the Respondents Based on the Level of Education	50
4.3.3 Distribution of the Respondents Based on Age	51
4.3.4 Distribution of the Respondents Based on Years of Service	51
4.4 Descriptive Statistics	52
4.4.1 Process Management	52
4.4.2 Business Process Resources	54
4.4.3 Information and Communication Technology at Teachers Service Commission	56
4.4.4 Organization System	57
4.4.5 Service Delivery at Teachers Service Commission	58
4.5.1 Diagnostic Tests	60
4.5.2 Regression Analysis Results	62
<u>CHAPTER FIVE: SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS</u>	66
5.1 Introduction	66
5.2 Summary of Major findings	66
5.2.1 Contribution of Process Management to the Public Sector Service Delivery in Kenya	66
5.2.2 The Influence of BPR resources on the Public Sector Service Delivery in Kenya	67
5.2.3 Extent to which Information and Communication Technology (ICT) system affects Public Sector Service Delivery in Kenya	67

<u>5.2.4 The Role of Organizational System on the Public Sector Service Delivery in Kenya</u>	68
<u>5.3 Discussion of Findings</u>	68
<u>5.4 Conclusion</u>	70
<u>5.5 Recommendation</u>	71
<u>5.6 Areas for further Research</u>	72
<u>REFERENCES</u>	73
<u>APPENDICES</u>	82
<u>APPENDIX I: INTRODUCTION LETTER</u>	82
<u>APPENDIX II: QUESTIONNAIRE</u>	83
<u>APPENDIX III: KEY INFORMANT GUIDE FOR TEACHERS</u>	86
<u>APPENDIX IV: KEY INFORMANT GUIDE FOR SENIOR GOVERNMENT OFFICIALS</u>	87
<u>APPENDIX V: AFRICA NAZARENE UNIVERSITY RESEARCH AUTHORIZATION LETTER</u>	88
<u>APPENDIX VI: NACOSTI RESEARCH PERMIT</u>	89

ABSTRACT

Business Process Re-engineering (BPR) has been widely adopted by private businesses and has been a focus of research since the 1990s and it is still one of the top five management concerns for Information Technology (IT) executives globally. However, the adoption of BPR in the public sector in general, and in the public sectors of developing economies in particular, is a relatively recent and little researched phenomenon. Despite the adoption of BPR in public sector its relationship with service delivery is unknown in Kenya. This study sought to analyse the effects of business process re-engineering on public service delivery sector in Kenya. Specifically, to assess the contribution of Process Management to the public sector service delivery in Kenya, to determine the influence of BPR resources on the public sector service delivery in Kenya, to establish the extent to which Information and Communication Technology (ICT) system affects public sector service delivery in Kenya and to determine the role of organizational system on the public sector service delivery in Kenya. Contingency theory, resource dependency theory and technology acceptance theory underpinned the study. The study used cross sectional descriptive study design. The population of the study was staff from TSC, the government and teachers, with a sample size of 130 and 8 key informants drawn from teachers and Ministry of Finance. Stratified and purposive sampling was used to select respondents. Data was collected through a questionnaire and interviews which were tested for validity and reliability. Statistical Package for Social Science (SPSS) Software was used to perform statistical analysis. Quantitative data was analysed using regression techniques. Qualitative data was analyzed descriptively using content analysis. Results were presented through tables, figures and verbatims. The findings revealed that BPR resources X2 ($\beta = 0.616$, $p < 0.05$), process management X1 ($\beta = 0.527$, $p < 0.05$), ICT system X3 ($\beta = 0.389$, $p < 0.05$) had statistical significance with service delivery. However, organization system was found to have no significant effect on service delivery ($\beta = 0.132$ $p > 0.05$). The study results conclude that BPR resources, process management and ICT contribute to improvement in service delivery. The study recommends for the need to carry out process redesign, invest in ICT system and avail more BPR resources as a way of improving public service delivery. The study suggests the need for more studies that include intervening variables and solely conducted on perspectives of managers.

ACKNOWLEDGEMENT

First of all, I wish to thank the Almighty God for giving me the opportunity, finances and strength to pursue this Masters course to its conclusion.

My gratitude goes to my dear mother Mrs. Rose L. Wanyanga who has supported and encouraged me throughout this journey.

My sincere gratitude also goes to the entire Business Department of the Africa Nazarene University and also my supervisor Dr. Agnes Mutiso for their guidance instruction and guidance through this research.

LIST OF TABLES

<u>Table 3.1 Population and Sample Size Representation</u>	43
<u>Table 4.1 Response Rate</u>	48
<u>Table 4.2 Reliability Results</u>	49
<u>Table 4.3 Level of Education of the Respondents</u>	50
<u>Table 4.4 Age of the Respondents</u>	51
<u>Table 4.5 Years of Service of the Respondents</u>	52
<u>Table 4.6 Summary Statistics on Process Management at Teachers Service Commission</u>	53
<u>Table 4.7 Summary Statistics on Business Process Resources at Teachers Service Commission</u>	54
<u>Table 4.8 Summary Statistics on ICT at Teachers Service Commission</u>	56
<u>Table 4.9 Summary Statistics on Organization System at Teachers Service Commission</u>	57
<u>Table 4.10 Summary Statistics on Service Delivery at Teachers Service Commission</u>	58
<u>Table 4.11 Collinearity Statistics</u>	61
<u>Table 4.12 Normality Tests</u>	61
<u>Table 4.13 Model Summary</u>	62
<u>Table 4.14 ANOVA</u>	63
<u>Table 4.15 Coefficients</u>	63

LIST OF FIGURES

[Figure 1.1 Conceptual Framework](#)24

[Figure 4.1 Gender of the Respondents](#).....50

LIST OF ABBREVIATIONS

ANOVA:	Analysis of Variance
BPR:	Business Process Re-engineering
GE:	Great Extent
GoK:	Government of Kenya
ICT:	Information and Communication Technology
IT:	Information Technology
LE:	Little Extent
ME:	Moderate Extent
NACOSTI:	National Commission of Science, Technology and Innovation
NE:	No Extent
PC:	Performance Contract
PSC:	Public Service Commission
PSPF:	Public Pension Funds of Tanzania
RBV:	Resource Based View
RRI:	Rapid Result Initiative
SAGA:	Semi-Autonomous Government Agency
SC:	Service Charter
SP:	Strategic Plan
SPAS:	Staff Performance Appraisals

SPSS: Statistical Package for Social Sciences

TAM: Technology Acceptance Model

TSC: Teachers Service Commission

VGE: Very Great Extent

OPERATIONALIZATION OF TERMS

BPR: refers to radical changes in the of business processes to achieve drastic changes to improve efficiency in delivering services.

Knowledge Management: Refers the process of creating, sharing, using and managing the knowledge and information of an organisation.

Organisation Communication: refers to the flow of information within the organisation and outside the organisation.

Organizational System: is defined as a mechanism which links and co-ordinates individuals within a framework of their roles, authority and power.

Process Management: Refers to aligning processes with an organization's strategic goals, designing and implementing process geared at enhancing serving delivery.

Processes: refers to the targets of reengineering in BPR.

Service Delivery: This refers to the provision of social services, such as potable water supply, good roads, healthcare delivery and electricity, intended to alleviate human suffering and by extension, enhance the quality of life of the citizens.

Top Management: Refers to CEO, Directors and Senior Deputy Directors within the organisation.

Turnaround Time: Refers to time taken to deliver processes.

CHAPTER ONE: INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 Introduction

The chapter consists of the background of the study, statement of the research problem, objectives of the study. It further discusses the objectives of the study, its research questions, and significance of the study scope, limitations, delimitation and the conceptual framework.

1.2 Background of the Study

Businesses face a rapidly changing environment due to increased competition and higher customer expectations. Work processes organized along the principle of division of labour that can no longer deliver the required performance. In response to the changing business environment, companies are turning to Business Process Re-engineering (BPR), involving significant investment in Information Technology (IT). BPR advocates the redesign of business processes using enabling IT to bring about a quantum leap in performance (Sungau, Ndunguru & Kimeme, 2013).

In view of the changing business environment, the public sector also faces similar challenges. Public organizations are increasingly finding it difficult to meet the demands of a better-educated public in a fast-changing social environment. This is because the existing bureaucratic model of public organizations was developed in a slower-paced society, in a time of mass markets, and when only those at the top of the pyramid had enough information to make informed decisions. While public organizations have adopted IT to improve their operational efficiency, the changing environment calls for more radical changes to improve the quality of public service. The need to re-engineer the government to meet these new demands has led to the call

for the “reinvention of the government”; BPR has been championed as part of this reinvention (Gachoka, 2015).

Public sector organisations in general and those in the developing economies in particular have faced entrenched problems that result from excessive bureaucracy, awkward work procedures and systems, lack of a customer service focus, and corruption. The solution to the problems needs not just a less radical business process change but a radical re-engineering. The pressure for administration efficiency, better performance, transparency, good governance, and increased accountability has also seen a rise in BPR’s appeal for application in the public sector in general and in public sector organisations in developing economies in particular (Debela & Hagos 2011). Organisations in public sector are encouraged to implement BPR in service delivery to improve efficiency. According to Proctor and Gray (2006), BPR in the public sector “can be a very effective tool for introducing cost effective changes into an organisation to the benefit of the organisation and its customers.

The principles of BPR resonate as appealing and powerful transformative ideas for the public sector. The importance of BPR principles to transform government operations, processes and structures has also made BPR highly relevant in relation to e-Government implementation. For example, state that transformational e-Government cannot succeed without the radical redesign of intra-organisational and inter-organisational administrative and service processes using BPR (Weerakkody, Janssen & Dwivedi, 2011)

In a bid to transform their traditional hierarchical and bureaucratic business models into customer-oriented process-based models, there are now several cases of BPR adoption and implementation in the public sector (Lucas, 2016). For instance, South African and

Sri- Lankan government successfully implemented BPR across government departments in the past decade and a BPR project in a government back pension project, respectively (Van der Vyver & Rajapakse, 2012). BPR has also been implemented since 2006 in the Namibian Public Service and Ethiopian public service; which aims to streamline business processes for effective service delivery and improved performance (Bokhari & Qureshi, 2016).

Most of governmental organizations are characterized with inflexible structures. As Claver, Llopis, Reyes González and Gasco (2001) noted, multiple layers of management structure, centralized and extensive systems as well as the accumulation of control procedures and regulations remain to be difficult obstacles in ensuring efficiency, economy and productivity of public sector organizations. Likewise, the working practices of public organizations pointed as fragmented functions across various units of the organization and each unit focused only on one task that lack to enhance the performances. That in turn results to dissatisfy both the customers and service providers. Above all, those old- fashioned working practices lack to enhance the organization performance in terms of effective, efficient and economic utilization of resources (Swartz, 2018).

However, there are different management techniques and tools that can be used by every organization to enhance the performance and operations. Business Process Reengineering is among the techniques and tools which are widely used to attain dramatic and radical change in the organization. Syed, Bandara, French and Stewart (2018) claimed that BPR also can be applied in government organization like the for profit organizations. Regarding to this, BPR help organizations to fundamentally change their systems in a manner that increase competitive power, customer service

and eliminate unnecessary costs. Miao (2010) also mentioned that the dramatic changes of BPR helps to attain a new improvement in different measures of performance, such as cost, quality, service and speed. Recognizing the benefits of BPR that brings to the organizations, the government of Kenya also introduced BPR to enhance and transform the public organization through public service transformation framework, with state parastatals including Teacher Service Commission adopting BPR method.

1.2.1 Teachers Service Commission

Teachers Service Commission (TSC) is an independent institution which was established under Article 237 of the Constitution of Kenya (2010) to regulate teaching service in Kenya. The Commission manages a force of 317,069 deployed in approximately 28,000 public educational institutions in Kenya. These include 217,291 teachers who are deployed in 22,623 public primary schools and 99,778 teachers who are serving in 8,629 public post primary institutions. Over eight million students are served by the teachers in primary schools while at the secondary level consists of two million students (Republic of Kenya, 2013). TSC has 9 Commissioners and a Secretariat that manages the affairs of teachers. Since 1967, the number of Commissioners and secretariat has grown from 100 above 2468 officers in 2018. The Commission Secretary is the head of TSC who is equally its CEO, advisor and executes Commission's policies and decisions (Teachers Service Commission [TSC], 2019).

Based on the Constitution of Kenya, the Commission is supposed to register trained teachers as well as employ and recruit tutors who have been registered by the Commission. The Commission also assigns teachers employed by TSC to serve in public institutions and schools. TSC is responsible for transfer and promotion of teachers as well as their discipline, control and termination of employment. The

Commission also reviews the education and training standards of those joining the teaching service, reviewing teachers' demands as well as provide advice to the national government on issues involving the teaching profession.

Based on the 2012 TSC Act the Commission is supposed to facilitate professional development and the career progression of teachers as well as their performance and conduct. The operations of TSC are hence anchored to the continuing reforms in the Education Sector as indicated in the policy framework on Reforming Education and Training Sectors in Kenya Sessional Paper No. 14 of 2012. The main aim for these reforms is to enhance the quality of the teaching service by enhancing the professional capacity and teacher's conduct and providing them with the necessary support to contribute towards improved quality of education in public schools (Republic of Kenya, 2012). As part of its strategy, TSC Strategic Plan for the period 2015-2019, TSC prioritized the implementation of BPR as a way to improve service delivery and meet its mandate (TSC, 2015).

1.3 Statement of the Problem

Service delivery is much more complex in the public sector as it involves identifying expressed and non-expressed needs, meeting such needs, setting priorities and allocating resources equitable to meet needs (Ghatari, Shamsi & Vedadi, 2014). In today's public sector, the delivery of quality service is strategic for success and survival. In view of this, public agencies such as Teachers Service Commission have come under pressure in terms of the service quality of the Commission (Soi, 2017). A point further emphasized in TSC Strategic Plan for the period 2019-2023, where service delivery challenges have been acknowledged (Teachers Service Commission, 2019). According to Republic of Kenya (2016), evaluation report on service delivery, there exist citizen

satisfaction index of 42% with public service delivery across government department and parastatals. This confirms service delivery inefficiencies in public sector, TSC included.

The Government of Kenya in recognition of the importance of public service delivery, developed public service transformation framework. The framework serves all government department and parastatals seeking to improve and transform public service delivery. To achieve this, the government has prioritized the use of the following tools: Strategic Plans (SP), Performance Contracts (PC), Service Charters (SC), Staff Performance Appraisals (SPAS), Rapid Results Initiatives (RRI) and Business Process Re-engineering (BPR), with TSC being among the first implementers of BPR in the public sector as a way to improve service delivery (Government of Kenya [GoK], 2017).

Significant research has been conducted on BPR in public sector both at regional and local levels. Regionally studies by Lucas (2016), investigated the application of the BPR systems in enhancing service delivery in South African public sector, Kassahun (2012) conducted a study on BPR and public sector organization performance in a developing economy. Locally, studies Gachoka, (2015); Abuto (2015) and Ogada (2017) have been conducted on business process re-engineering in public sector, with a focus on BPR as a strategic tool. Despite existence of many studies, much of the focus has been on BPR as a strategic tool in public sector, with limited studies focusing BPR influence on service delivery. Thus this study was carried out to evaluate the effect of BPR on public sector service delivery at Teachers Service Commission in Kenya.

1.4 Objectives of the Study

1.4.1 General Objective

To assess the effects of business process re-engineering on public sector service delivery in Kenya.

1.4.2 Specific Objectives

- i. To assess the contribution of Process Management to the public sector service delivery in Kenya.
- ii. To determine the influence of BPR resources on the public sector service delivery in Kenya.
- iii. To establish the extent to which Information and Communication Technology (ICT) system affects public sector service delivery in Kenya.
- iv. To determine the role of organizational system on the public sector service delivery in Kenya.

1.5 Research Questions

- i. How does process management influence public sector service delivery in Kenya?
- ii. What is the influence of BPR resources on public sector service delivery in Kenya?
- iii. To what extent does ICT system influence public sector service delivery in Kenya?

- iv. What role does organization system play on public sector service delivery in Kenya?

1.6 Significance of the Study

The study on the effects of business process re-engineering on public sector service delivery is very important and useful to the public sector transformation in service delivery. The government through the Public Sector Transformation Framework of 2017-2022 has embarked on improving service delivery (GoK, 2017). Through the study findings the results will inform government policy on service delivery in public sector. Research results can also be used as recommendations for service delivery policy in order to improve the efficiency of public institutions. The findings can also be used to improve the TSC service charter.

From the findings or recommendations of the study, TSC can develop new strategies or practices to improve service delivery. The findings of the study greatly contribute to service delivery innovation in public sector, through the results new recommendation for service innovation can be implemented in public sector. The study findings enhance the BPR body of knowledge in public sector, more specifically developing economies. Besides, the study has helped in testing the applicability of various theories in public sector.

1.7 Scope of the Study

This study was conducted among the staff of Teacher Service Commission, teachers and government officials in Ministry of Finance. The study focused on process management, organization system, BPR resources and ICT system. The study was limited to both quantitative and qualitative research methodology and only used close-ended questions and open ended questionnaires respectively.

1.8 Limitations of the Study

The following were the anticipated limitations in the study. The study was conducted at TSC and specifically focused on TSC employees. In this regard, the study faced challenges in contacting TSC employees (teachers and secretariat staff) distributed across the 47 counties due to cost and time factor. The researcher, therefore, adopted the use of email questionnaire for secretariat staff located at the county offices and issued questionnaires to teachers frequenting the headquarters.

In addition, some of the respondents developed fear in answering the questionnaire. However, the researcher assured them of the confidentiality and privacy of the data thus ensuring that the respondents were guaranteed of privacy before they participate.

1.9 Delimitation of the Study

The study was guided by the following boundaries related to objectives: BPR resources, ICT, organization system and process management. Besides, the study was limited to the use of questionnaire as sole instrument.

1.10 Conceptual Framework of the Study

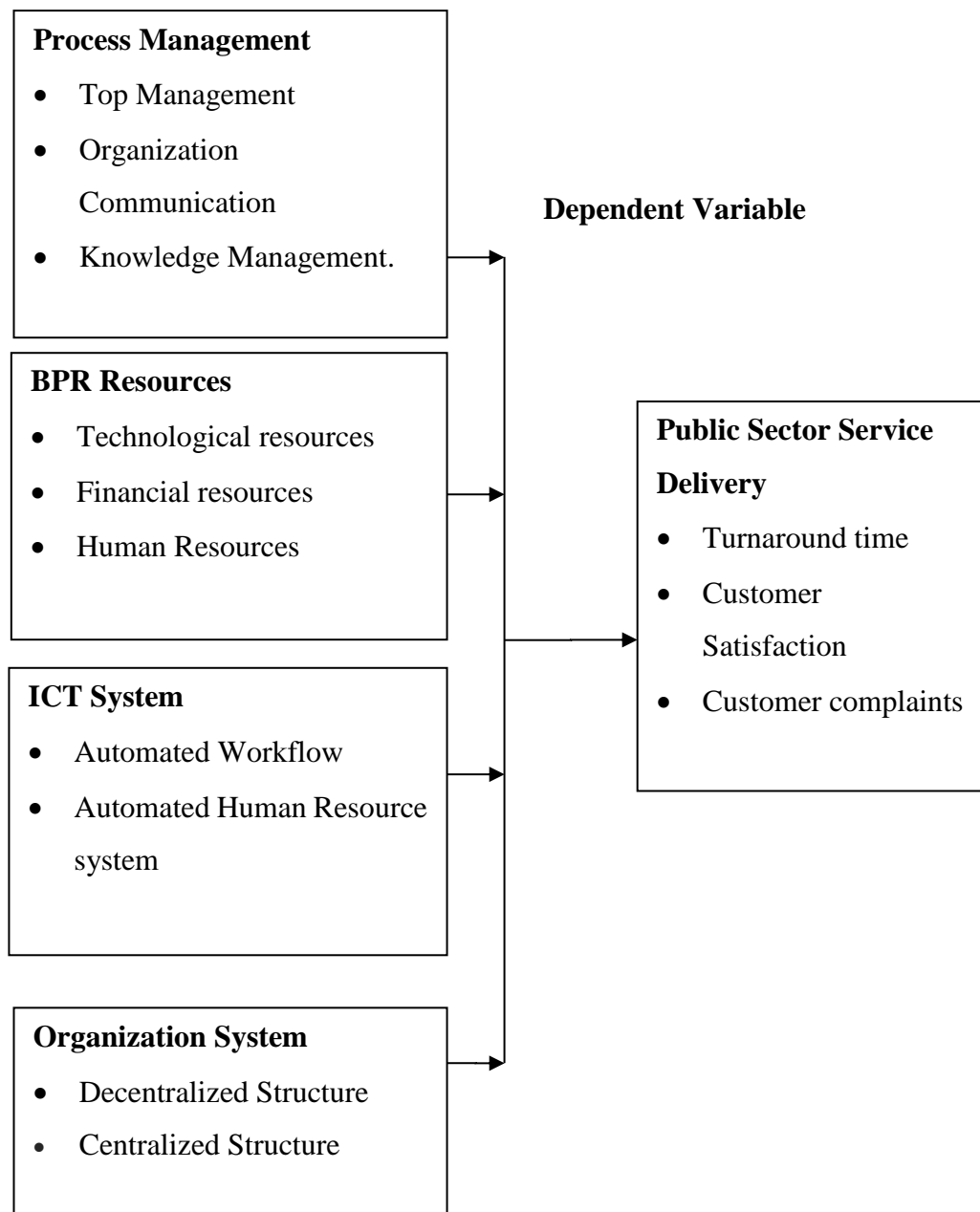
A Conceptual framework is a pictorial representation of study variables and their potential relationships (Mathew, Sulphay, & Rajasekar, 2015). In this study, the conceptual framework explains the relationship between independent variables (process management, organization system, BPR resources and ICT system) and dependent variables (service delivery). Implementation of business process re-engineering involves process management; change in organization system, BPR resources and ICT system and these are meant to improve organization performance in service delivery in public sector.

Process management is a key aspect of BPR as it ensures that the BPR process helps in organization performance. Process management specifically includes the aspect of top management, organization communication and knowledge management. This aspect contributes to service delivery depending on the extent to which they are enhanced in organization systems.

The effectiveness of BPR is linked to the resources relating to technological, financial and human resources. These types of resources are central to how BPR affects service delivery. Hence in implementation of BPR re-engineering, organization expend technical resources, financial and human resources. These resources significantly determine the extent of service delivery change hence their importance in the conceptual framework.

Information and communication technology is central to the implementation of BPR. ICT enables organization to re-engineer their functions, roles and responsibilities in much faster. Thus ICT is a key enabler in BPR and thus is a major determinant of organization performance or service delivery in public sector.

Business Process Re-engineering involves organization re-organization in terms of roles and responsibilities across key departments. Such process includes both the realignment to centralized structures and to decentralized structures. Thus, centralized structures and decentralized structures are a key determinant of service delivery after BPR implementation process.

Independent Variable**Figure 1.1 Conceptual Framework**

Source: Researcher (2019)

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section provides an empirical review of business process re-engineering and service delivery. Notably, the chapter begins by presenting the academic theories that underpin the research. Subsequently, the section provides an empirical review of literature that focus on studies that have been done on the study objectives. This will be followed up by a summary on literature and knowledge gap.

2.2. Theoretical Review

The study focused on three theories mainly; Resource Based View Theory, Contingency Model and Technology Acceptance Model which are linked to the objectives. The theories are reviewed in terms of their applicability to the study objectives.

2.2.1 Resource Based View Theory

The Resource-Based View (RBV) theory is the main theory that informs the research. Based on the RBV, firms obtain a competitive edge by deploying and developing resources (assets and capabilities). This follows that for organisations to gain competitive advantage over others, they should hold better resources than their competitors. Based on the context of the public sector, the RBV facilitates creation of public value by capitalizing on the capabilities and assets of an organization (Peteraf & Barney 2003; Hansen 2007).

Overall, the RBV focuses on two major constructs: competencies and resources (Bryson, Ackermann & Eden 2007, Carmeli & Tishler 2004). Resources involve human, financial, physical and technological capabilities as well as other items captured in the SWOT analysis tool (Bryson, Ackermann & Eden 2007). Some resources like

physical capital and finances are tangible while others like organizational culture, relationship, knowledge and network as well as human capital are intangible.

Conversely, competencies, which have managerial and transformational capabilities, are a subset of resources like technical capabilities, actions and functional process knowledge and technical capabilities. Through the competencies organizations are able to succeed against critical factors and essential goals (Bryson, Ackermann & Eden, 2007). Organizations do not acquire competencies from the external environment including the market; instead, they are developed from within an organization. Service delivery ability, taxing abilities, procedural knowledge and service responsiveness are some of the competencies in public organisations (Bryson, Ackermann & Eden 2007).

Additionally, as Hansen (2007) points out, the RBV is a critical approach for organizations in the public sector because of its emphasis on efficiency; notably, reliance on an organization's internal resources to fulfil the stated goals and mission of an organization. Nonetheless, it is necessary to consider the different contexts for public and private sectors when applying the RBV. In the public organization context, the RBV must concentrate on effectiveness and efficiency that enable organizations to fulfil the mission of a firm as well as the given mandate using internal resources and through the implementation of strategies that create value.

The resource perspective of BPR attributes BPR's effect on performance to the type and size of the financial, technological and human resources employed in the execution of Business Process Reengineering project. Also paramount in Business Process Reengineering project are the knowledge and skill of the BPR team on change management, BPR project management and IT infrastructure resources (Wei Khong & Richardson, 2003). The acquisition of these skills enhances service delivery in public

sector. Thus enhanced service delivery is associated with financial, human and technological resources that are key elements in business process re-engineering. Therefore, the impact of BPR on the performance of an organization in the public sector is determined by availability as well as the effective utilisation of scarce resources.

Since Resource-Based View emphasises that an organization's ability can be developed and deployed to its internal resources, Business Process Reengineering becomes a veritable tool for restructuring both an organisation and the process therein in a manner that becomes less time and money consuming. As the core essence of business is to meet its goals including satisfying customers, the Resource-Based View (RBV) becomes relevant to this study. This is because for an organisation to improve its service delivery, it has to periodically redesign and restructure its processes to meet current business and consumer orientations, all these tasks demand resources. Therefore, availability of resources is a prerequisite to business process reengineering.

The RBV contends that through resources organizations can deliver products or services in a more economical way and simultaneously meet the wants of customers. In turn, organizations that possess better resources are able to provide stakeholders with greater value at a lower cost (Peteraf & Barney, 2003). In the context of BPR, RBV explains how the changes introduced to the business processes, structure and information systems themselves become assets of greater worth (enhanced assets) (Wade & Hullan, 2004). Therefore, through the BPR organizations can improve building of resources can be used to enhance resource building that can affect how effectively and efficiently an organisation fulfils its mandate and stated mission by equipping an organization with effective processes, systems and structure necessary to sustain and further enhance the organisational values (Peteraf & Barney 2003;

Dzhumalieva & Helfert, 2008). RBV theory thus fit the study as it helps conceptualize how BPR as a resource contributes to service delivery at TSC.

2.2.2 Contingency Theory

The contingency theory contends that in organizations things are interdependent. Thus, to be effective it is necessary to have goodness of fit between the structures and the external environment of an organization. Accordingly, the proper management approach depends on the situation of an organization (Daft, 2001). The contingency theory is a mixture of organizational theories like organizational structure and decision making perspectives.

The strength of the contingency theory paradigm is that organizational effectiveness results from fitting characteristics of the organization, (such as the organization structure, culture) to contingencies that reflect the situation of the organization. Donaldson (2001) points out that, firms intend to realize the fit of organizational characteristics so as to enhance performance. Consequently, organizations minimize loss of performance by being shaped by contingencies. The organization, therefore, is aligned to its contingencies and there is an alignment between organization and its contingencies, creating an association between contingencies and organizational contextual characteristics.

The study holds that the contingency theory provides an approach way of conceptualizing the relationship organization system change and service delivery in public sector.

2.2.3 Technology Acceptance Model (TAM).

The TAM focuses on the on the information system acceptance. Based on the TAM, the intentions of an individual are determined by the perceived ease and usefulness of

an actual system. The TAM is distinct from the actual Reasoned Action version. The first difference is the introduction of two new constructs in TAM: perceived ease of use and usefulness. In terms of perceived usefulness, the performance of application is improved through usage while work is made less stressful through perceived ease of use (Chen, Shing-Han & Chien-Yi, 2011).

Ducey (2013) points out that the two constructs are highly significant to TAM because it determines the behaviour of users and the acceptance of technology. The TAM justifies the general acceptance of technology. As such, TAM is relevant in the business process re-engineering practice in the public sector in Kenya. The TAM explains the significance of perceived cost, self-efficacy, power supply, technological infrastructure, and internet facilities to establish the how service delivery affect BPR; hence, the model is relevant to the civil service in Kenya.

The TAM explains the acceptance, relevance, application and effectiveness of modern technology in the sharing of information among members of the public, increasing literacy levels and galvanizing delivery of public services. In this research, TAM will underscore the actual utilization and technological behaviour of users. Based on the analysis unit and TAM assumption, the model is essential and applicable to the debate on business process re-engineering and delivery of service to the public. In such a situation, information technology and system are critical are a critical process of the business process re-engineering and delivery of services in the public sector.

Therefore, the TAM is essential in elucidating the impact of ICT system on the component of BPR on Kenya's public sector.

2.3 Empirical Review

This section will review literature both scholarly and empirical studies that have been carried out in line with the study objective. The review is categorized based on the four objective of the study. In each review section an analysis on the concept and method and practices has been provided

2.3.1 Process Management and Public Sector Service Delivery

To effectively manage an organization through its process, it is necessary to have a prior knowledge of the business processes that are common in an organization and their link to each other. Therefore, the initial stage of the description of the management is an understanding of the business process. However, business process is complex and cannot be easily identified because their quantities are unknown; they lack visual representations in the charts of an organization and don't have names.

In a process-oriented organization, the process program must be supported by the management; failure to which the program will not be fully effective. Process management is likely to fail in case senior executives fail to conduct the required roles of leaders and fail to create process-oriented culture (Wahlich, 2004; Muñoz et al., 2011). Based on McCormack and Johnson (2001) empirical research process enable firms enhance customer satisfaction, enhance the performance of an organization and minimize inter-functional conflict.

The discovery and evaluation of the business processes of an organization facilitates the detection of activities that do not add value, which in turn results in improvement of speed. Hammer (2007), Hirzel (2008), and Schmelzer and Sesselmann (2006) abstract process management is a managerial approach characterised by the focus on business processes that can provide an important contribution to the management of public sector organisations. The significance of this approach for the management of

inter-organisational relations in the public sector is highlighted. A model for the analysis of the factors enabling the implementation of process management in the public sector is proposed. The Italian experience of the one-stop shops for businesses is studied; the relevance of process management approaches for the success of this reform is shown.

Kohlbacher and Reijers (2013) in their study established that process management is positively associated with firm performance among Austrian firms. Similarly, Wahlich (2004) established that process management impacts the performance of organization positively. This study highlights the importance of process management on organization performance. However, this may not be applicable in the public sector whether the management principles and organizations goals differs thereby necessitating need for process management studies in public sector.

Hawrysz and Hys (2013) conducted a study on Process-Oriented Management in Public and Private Sector. The study clearly demonstrated that process management in public sector significantly different with process management in private sector. In support of this difference, Gębczyńska and Wolniak (2018) and Raczyńska (2015) highlighted that difference in process management in public sector is occasioned by these following practices: deliberative democracy, e-democracy, public conversation, participatory budgeting, citizen juries, study circles, focus groups, roundtables, new forms of town meetings, choice work dialogues, cooperative management bodies, and other partnership arrangements. Practices which they state are not central in business process management in private sector. Collectively these studies demonstrate that process management has been adopted in public sector. However, they fail to showcase how process management benefits public sector, more so service delivery.

2.3.2 BPR Resources and Public Sector Service Delivery

BPR requires massive deployment of resource including human, financial and technological. In comparison to the private, organizations in the public sector have limited resources (MacIntosh, 2003). Therefore, the availability and effective utilisation of resources that are scarce determines the level of BPR's impact on the performance of organizations in the public sector. For example, Halachmi and Bovaird (1997) points out to successfully implement BPR in organizations in a public administration relies on the BPR capacity of that organisations in differentiating value-adding missions and processes of service delivery from the ones that do not add value. Overall, the financial capacity is essential for the success of BPR project in the public sector.

From a research conducted in Norther Ireland by McAdam and Corrigan (2001) and focused on the implementation of BPR in health care services in the country, organizations realized dramatic outcomes in terms of satisfaction of patients, reduction of costs and improvement of service delivery. Nonetheless, it was complicated for organizations to adjusting the reward system; hence, most employees were not motivated. Moreover, the impact of performance of BPR is assigned to the type and size as well as human, financial and technological resources used in BRP project by an organization.

Enablers of human resource as elaborated by to Goksoy et al. (2012) concentrates on job motivation, policies of human resource and new process skills. The human factor is a critical facet in daily success, performance and operations of an organization. Without retraining and re-educating the people reengineering effort is likely to result in failure. Al-Mashari and Zairi (2009) advocates for the active and open involvement of all individuals as well as total consultation of the people including process owners and line managers by leaders in all stages.

Thong, Yap and Seah (2000) in a longitudinal study point out that financial capacity is necessary to undertake radical changes to enhance the information systems and information technology systems of an organization. A case study involving eight hospitals in the United States was used to evaluate how the success of the Business Process Reengineering is affected by financial resources. From the research it is clear that combined effect of IT investment and process change has a positive and strong impact on performance.

Akam, Okeke, Kekeocha and Onuorah (2018) examined the effect of Business Process Reengineering (BPR) resources on the performance of brewing firms in Nigeria, with the study grouping BPR resources into financial, human and technological resources. The study results showed that financial and technological resources were in adequate usage while human resources were moderate. The regression result indicated that BPR resources have 94% significant effect on the performance in brewing firms in Nigeria. Specifically, a positive influence was established such that financial resources has more influence, followed by human resources and then technological. The study therefore concluded that BPR is a veritable tool to enhancing employee satisfaction, team work and cooperation, quality of service delivery as well as attainment of organizational strategic goals in brewing firms in Nigeria.

Similarly, in Nigeria, Ogbo et al. (2015) looked at business process reengineering resources and the performance of commercial banks in Nigeria. The study results also showed that banks that have invested in BPR resources are more likely to experience improved performance in banking sector. These results prove the importance of BPR resources in private sector. However, this cannot be generalized to the public sector as they have different organization goals north central making it necessary to have the current study.

Kassahun (2012) in his study sought to investigate the influence of BPR on public sector organization performance in developing context. From the results it was established that BPR resources is a critical success factor in organization performance in public sector. This research demonstrates that BPR resources are significant in public sector delivery. Nevertheless, the research fails to acknowledge that BPR implementation across different countries is affected differently by BPR resources allocated and thus these results cannot be generalized to Kenya. This warrants the current study in the Kenyan context.

2.3.3 ICT System and Public Sector Service Delivery

Using the ICT to reorganize the internal communication, administration transactions, and inter-relationships as to enhance flow of information and transfer provides substantial occasion to increase government capacity. Through intranets different departments can share databases of common clients and bring together the capacities and skills of members in decision making and problem solving. In turn, the flow and transfer of information is enhanced and goods and services are provided in a faster and cheaper manner with minimal bottlenecks (Venkatesh, Morris, G. Davis, & Davis, 2003)

According to Soi (2017), TSC seeks to obtain a competitive edge of rivals in such a dynamic environment through ICT resulted in drastic improvement in service delivery.

According to Chironga, Leke, Lund and Van Wamelen (2016), IT acts as an enabling tool in attaining customer service advantages in three ways: operational efficiency; clerical effectiveness/automation; and/or information generation and strategic effectiveness. Developments such as the satellite television and Internet have created new means and audiences through which companies can disseminate their information.

The changing economic, social and political situations have a direct influence on the society and the different industries, where firms have to effectively use and trade in information in order to continue to exist.

Yator and Shale (2014) in their study sought to examine the impact of ICT on service delivery in public sector in Kenya, with a focus on immigration department. The study findings highlight the importance of ICT in service delivery, specifically the findings revealed that enabling to the adoption of ICT by immigration department and that Inter-organizational systems availability affects service quality while Channel relationships to access immigration service affects their efficiency in service delivery.

In another study conducted in Nigeria by Nwokorie (2017) on the effect of information and communication technology on service delivery in the Nigerian manufacturing industry. Findings showed that electronic mail, teleconferencing and telecommuting as variables of information and communication technology have positive on service delivery. Therefore, the study concluded that teleconferencing systems, collectively with changes in corporate policies and support, can result in reductions in travel and its related costs. The study was examined the effects of ICT on service delivery but within private sector context and this may not be applicable in public sector context.

Abdullah and Ahmad (2001) in their study sought to examine how the use of Information Technology impact service quality in the Malaysia public sector. IT is being extensively used to improve public services and to reinvent the government. The drive to deploy IT in reinventing the government has greatly contributed to efficiency and effectiveness in public service delivery. Duve and Tambudzai (2015) in their study conducted in Zimbabwe sought to establish the effectiveness of ICT in Zimbabwe public service delivery. The study established that migration from a manual system to

ICT led tolling system, has improved service delivery in Zimbabwe public sector. Although these studies investigated the effect of ICT on service delivery in public sector their focus was not in light of business process re-engineering necessitating the current study.

Mwori (2016) in his study established the link between ICT strategy and public service delivery within the setting of ICT Authority through a qualitative study. From the research findings it can be concluded that ICT strategies as championed by the ICT Authority are continuously being incorporated into the public delivery platforms. A similar study was conducted by Mwai (2013) aimed at investigating the impact of ICT adoption on service delivery at Kenya Power and Lighting Company through quantitative methodology. The finding of the study concluded that the investment in ICT has a significant positive influence on the service delivery. Although these studies demonstrate the influence of ICT on service delivery in Kenya, they suffer from methodological limitations as they only used either qualitative or quantitative requiring further study with mixed methodology, hence the current study.

2.3.4 Organization System and Public Sector Service Delivery

One of the main roles of any leadership is to both establish and nurture the appropriate corporate culture. However, the bottom-up approach cannot be used to impose an organizational culture. Instead, the right culture is created through an organic process that involves the entire organization (Cummings, 2007). In an organization, the activities used to realize a common goal are coordinated by individuals through common expectations and purpose through the work culture. Such persons comprehend their individual roles and how such functions fit into the broader picture; hence, a corporate culture that is properly managed can result in better performance. The norms of acceptable behaviour are defined through culture. Through culture, organizations are

able to regulate work situations that are complex; thus raising performance level. Chaos associated to resistance to change and better efficiency can be realized in an organization that is capable of adjusting to different cultures based on the demand of tasks (Csaszar, 2008).

Organizational structures according to Nahm, Vonderembse and Koufteros (2003) refer to how power and responsibility is distributed in an organization as well as how work procedures are undertaken. Accordingly, some of the components of organization structure include centralization of authority, horizontal integration and hierarchy layers. Sakalas and Venskus (2007) points out that ability to adapt and respond to the evolving environment as well as elasticity and encouraging collaboration and harmony are some of the features new organizational structures (Gold, Malhotra & Segars, 2001). The match of organizational structure design and environment complexity will be beneficial for performance if information distortion is not to be considered (Carley & Lin, 1997). A flat structure is capable of adopting in a rapidly evolving landscape in a single division (Usher, 1999). Csaszar (2008) found out that a wide range of organizations are affected by organizational structure while according to Ciliberto (2006) changes in organizational form have a direct effect on organizational performance.

Service delivery is influenced by a both a flat and centralized organizational structure (Teixeira, Koufteros, Peng & Schroeder, 2008). Organizational structure plays a critical role in enabling the management to realize its objectives as well as following the strategy of the company (De Cenzo, Coulter & Robbins, 2011). Khandwalla, (1977) divide organization structures into two classes: organic and mechanistic. Mechanistic structures are highly formalized, non-participative, hierarchical, tightly controlled, and inflexible, whereas organic structures are characterized by their informality, decentralization of authority, open channels of communication, and flexibility. This

showed that the organizational structures influence the work performance of the employees which affected the overall service delivery mandate of the organization. According to Zheng, Yang and McLean (2010), organizations that have the order-control structure are those that require specialization, hierarchy and require results that are centralized. These kinds of organization are characterized by sharing of knowledge and communication is high. Organizations requiring low specialization are organized according to work team, they share and innovations are high but have low store and memory.

A study done by Meijaard, Brand and Mosselman (2005) on organizational structure which sampled 1,411 of Dutch small firms found that centralization and specialization of organizational structures have different effects in terms of different outcome or results, the study concluded that organizational structure plays important roles on organizational performance.

Keneth (2013) aimed at examining how the performance of an organization is affected by change in corporate culture in the public Service Collage in Tanzania. From the study, it is clear that the performance of an organization is affected by change in culture given that TSC invests in human resource and technology. The research demonstrates that changes in corporate culture raises the performance level of parastatals. Similarly, Nyabuti, Chepkilot and Zakayo (2017) investigated the how the performance of workers is affected by corporate culture in Kenya's civil service sector by concentrating on seven ministries. The research demonstrates the presence of a statistical link between the performance of workers and corporate culture. These studies investigated the influence of culture an aspect of organization system without delving into the various forms of organization structures and their influence on service delivery.

Mlotshwa (2007) in his study assessed the impact of organisational structures on service delivery: a case study of the uMgungundlovu District Municipality, Zimbabwe. The findings of the study concluded that organization structure enables efficient and sustainable delivery of services. Similarly, Seip (2011) conducted a study on organizational structure and impact on service delivery at Middle Ramu District Administration in Papua New Guinea. The research demonstrates organization structures that are decentralized and flexible improves delivery of service in the public sector. Moreover, the research demonstrates the effectiveness of an organization is improved by organisational structure. The study suffers from sampling flaws as it was based on the use of convenience sampling making it necessary for studies that use probability sampling.

Nchorbuno, Shafiwu and Ayamga (2017) conducted a study that investigated the impact of organisational structures on services to polytechnic students. The study results indicated that centralized organization structure only leads to dissatisfaction of citizens with service delivery. The results clearly showed that most of the students were not satisfied with the organizational structure of the Polytechnic as it affected the quality of services they get. In a similar study, Wilfred, Kanchori, Nyandika and Yegon (2014) assessed the effect of organizational structure on performance of public health service providers in western Kenya. The study results showed that organizational structure has positive and significant effect on performance of Public Health Service Providers in Western Kenya. Although these studies highlight the potential effect of organization structure on service delivery, the research instrument used in the study was not subjected to reliability and validity test as such the results obtained from the study may not be relied on fully. Additionally, these studies did not test the applicability of

their studies within given theories hence the current study will rely on contingency theory.

Kathuri (2015) investigated the effects of organizational systems on service delivery in civil organizations in Marsabit County. The study used descriptive design targeted at senior level management staff in these organizations working within Marsabit County. Major findings of the study revealed that governance structure has an effect on service delivery. The study concluded that functional structure with many hierarchical levels; delegation of authority and the Board of Directors devotion to organization issues were factors that would improve service delivery to organizations. The study only used senior management and thus the results cannot be generalized to civil service population that includes both junior and senior employees. The current study has included all employees helping in generalization of findings.

2.4 Summary of the Reviewed Literature

The reviewed literature demonstrated that BPR process was closely connected to the organization performance in various ways. The literature also reviewed that BPR process affects organization performance through various components that are key in the implementation of BPR projects. From the literature review, it is clear that several studies have been undertaken to determine how BPR affects the performance of an organization, with few studies concentrating on delivery of services in public sector.

2.5 Knowledge Gap

This research explores how BPR affects delivery of services in the public sector in Kenya. To obtain an understanding on the empirical concept of Business Process Re-Engineering on delivery of services a literature review was conducted. Notably, the literature review demonstrates that numerous researches has been undertaken on BPR

in private sector in different contexts Alrhaimi and Alhumshry (2015) and Thaly and Sinha (2013).

However, the study also revealed that the very few studies that have been conducted in public sector have focused on BPR and organizational performance (Sungau & Ndunguru; 2015; Ogada, 2017; Rinaldi, Montanari & Bottani, 2015). The limited studies that have been conducted on BPR and service delivery in public sector have delved on health sector and general public sector, necessitating the need for studies on public services in various sectors such as the Education Sector. This study will thus seek to address this gap by focussing on Education Sector that is Teachers Service Commission in Kenya.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter focus on the research design, collection of data and analysis methods used in the study. Data collection, analysis and interpreted is also discussed. Data validity and reliability is also discussed in relation to how they were applied to the study.

3.2 Research Design

The main criteria in selecting research design were the objectives. According to (Yin, 2003), a research design provides a framework through which the study objectives are tested through data collection and analysis. This study used cross-sectional study design. Cross sectional descriptive design was selected because it is particularly suitable as it allowed observation of a representation of a population within a specific time and it establishes relationship between variables. Additionally, the research design saves time and costs (Kothari, 2004).

3.3 Research Site and Rationale

Teachers Service Commission was the study site. This is because it is the body mandated to manage teachers in Kenya. It was also selected because of the location, characteristics of the respondents and the objective of the study.

3.4 Target Population

Teachers Service Commission has a secretariat staff of 2468. This formed part of the target population of the study that included 317,069 teachers and the government officials at Ministry of Finance.

3.5 Sampling Procedure

This study used stratified sampling and purposive sampling to select the study respondents. The stratified sampling was used to categorize the respondents based on the cadres existing at TSC while purposive sampling was used to select respondents that were readily available for the study. According to Buchanan and Bryman (2007), stratified sampling and purposive sampling are important in selecting key respondents while also ensuring representativeness.

3.6 Sample Size

The study used Cochran's (1977) sample size formula for categorical data. Cochran's formula was used because the study variables were measured at Likert scale providing categorical data (Taherdoost, 2017). According to Ghauri and Grønhaug (2005), Cochran's sample size calculation is suitable for organizational studies that require application of Likert instrument. Cochran's (1977) sample size formula for categorical data is:

$$n_0 = \frac{t^2 pq}{d^2}$$

Where $t = 1.962$

Where p = is the estimated proportion of an attribute that is present in the population. In this study a BPR success rate of 23% will be selected in the study based on Ghatari, Shamsi, and Vedadi (2014) study.

$q = 1 - p$, where $(p)(q)$ = estimate of variance.

Where d = error margin of 0.05.

$$= 1.962 * 0.1771 / 0.0025 = 0.34747 / 0.0025 = 138.$$

Cochran's (1977) correction formula was applied to calculate the final sample size.

These calculations are as follows:

$$n = \frac{n^0}{1 + \frac{n^0}{\text{population}}}$$

$$n = 138 / (1 + 138 / 2468) = 138 / 1.06 = 130$$

The sample size of the study was 130 for the staff of TSC and 8 key informants (6 teachers and 2 Ministry of Finance officials) bringing total sample size to 138.

Table 3. 1: Population and Sample Size Representation

Staff	Population	Sample Size
Heads of Directorate	9	1
Senior Management	73	4
Middle Level Managers	502	26

Operational Staff	1884	99
Teachers		6
Government Officials		2
Total	2468	138

Source: Teachers Service Commission (2019)

3.7 Data Collection Procedures

Data collection involves gathering relevant information from various sources to adequately answer the research question, test the hypothesis and examine the outcomes. In the current study, primary data was collected through questionnaire, key informant interviews. The questionnaire was self-administered with TSC staff as the main respondents. Further to that it enabled respondents to fill the tool at ease within the agreed timelines. Key informant guides were used to collect data from selected teachers and Ministry of Finance officials on service delivery at TSC.

3.8 Research Instruments

The choice to use the questionnaires was because it saved time and cost in data collection (Mugenda & Mugenda, 2004). Again, the questionnaires were respondent friendly as they did not require much effort in filling them. The questionnaire was developed from expert advice of the supervisor and reviewed literature to ensure validity and reliability. The questionnaire was divided into sections namely: demographic information and section targeting all study variables.

3.8.1 Piloting of Research Instruments

This involved collecting data at one of the TSC regional offices determined by the researcher and the regional office were not included in main study to ensure authenticity in research. A total of 12 respondents were involved and were asked to fill the

questionnaire. Through their participation the researcher gained more insights on the clarity of questions and reliability of the research instruments. According to Kothari (2010), pilot size sample of 10% allows for testing of research instrument at minimal costs and hence the sample size of 12.

3.8.2 Validity of the Research Instrument

Mugenda and Mugenda (2003) define validity as the extent to which results reflect item being studied. Validity is measured through content and constructs validity. To ensure content and construct validity, expert advice from supervisor and sourcing questions from right literature and feedback received during piloting were incorporated.

3.8.3 Reliability of the Instruments

Reliability refers to the extent at which the instrument consistently and continuously measures characteristics of interest overtime. It measures the extent at which the measure has no bias. Reliability of the research instrument was tested through Cronbach Alpha test and this was performed through SPSS on the data collected during pilot stage. A cut-off of 0.7 was obtained and this indicated that the instrument was reliable for data collection.

3.9 Data Analysis and Presentation

Data was analysed using both descriptive and inferential statistics which comprised of correlational and regression analysis relationship between variables. Data was cleaned, coded and analysed using SPSS. Data process involved editing, classification, coding, and tabulation of collected data so that they would facilitate analysis process (Quinlan, Babin, Carr & Griffin, 2019). In regression analysis, ANOVA regression model was

used. Data collected from key informants was transcribed thereafter categorized and used to develop themes that were presented through verbatim.

The study was based on the following regression model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where Y = Service Delivery

X_1 = Process Management

X_2 = BPR Resources

X_3 = ICT System

X_4 = Organization System

ϵ = Error Term

β_0 = Minimum when all the independent variables are held constant at zero (referred to as constant or intercept)

$\beta_1, \beta_2, \beta_3$ = Rate of change in Y as a result of a unit change in independent variable

The study used ANOVA to test the relationship between the independent variables and dependent. A co-efficient of determination (R^2) was performed to determine how much of the dependent variable comes about as a result of the independent variables while regression co-efficient were used to indicate the effect of each individual variable on service delivery.

3.10 Ethical Considerations

The study project sought for a letter of introduction from Africa Nazarene University that which was used to seek permission from National Commission for Science, Technology and Innovation (NACOSTI) and Teachers Service Commission. The researcher also assured the respondents that the information provided would be treated as confidential and private as possible. This ensured that the possibility of bias and non-responses were minimized.

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

The main objective of this research was to assess the effect of business process re-engineering on public sector service delivery in Kenya. This was done by examining four specific objectives i.e. to assess the contribution of process management, BPR resources, information communication and technology (ICT) system and organizational system on the public sector service delivery in Kenya. The results of the study are presented in the sections below.

4.2 Response Rate

Response rate indicates the total number of questionnaires that were filled and returned with complete responses against the number distributed. The study targeted 130 employees from Teacher Service Commission. From table 4.1 below, a response rate of 74.6% was achieved meaning that the data was good enough to be analysed. Kothari, (2010) indicated that a response rate of 50% is desirable and that above 80% is good.

Table 4.1 Response Rate

Response Rate	Frequency	Percent
Returned Questionnaires	97	74.6%
Unreturned Questionnaires	33	25.4%
Total	130	100%

4.2.2 Reliability of Study Variables

The study sought to find out the reliability of the study instrument. This was important to ensure that study findings are reliable.

Table 4.2 Reliability Results

Variable	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
Process Management	0.818	0.822	5
BPR Resources	0.802	0.811	5
ICT System	0.698	0.723	5
Organization System	0.749	0.784	5
Service Delivery	0.726	0.752	5

Results in table 4.2 showed that all the variables were reliable as they all had cronbach's alpha co-efficient of at least 0.7 thereby meeting the cut off for reliability. The results from the study questionnaire are deemed reliable.

4.3 Demographic Characteristics

This section highlights the demographic characteristics of the respondents who participated in the study.

4.3.1 Distribution of the Respondents Based on the Gender

The study sought to understand the distribution of respondents based on gender. Gender of the respondents was deemed important as it would provide insights on the gender dimension of business process engineering. The results were as shown in Figure 4.1.

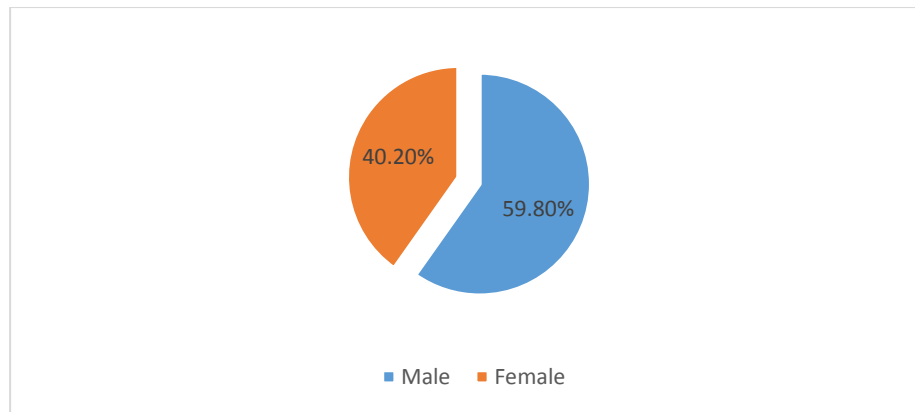


Figure 4.1 Gender of the Respondents

The results indicate that the male respondents were slightly more than the female. This implies that at Teachers Service Commission, gender equality representation has been met across all level of management.

4.3.2 Distribution of the Respondents Based on the Level of Education

The researcher also sought to establish the level of education of the respondents as it helps to understand the BPR resource component available in an organization. The results are presented in table 4.3 below.

Table 4.3 Level of Education of the Respondents

Level of Education	Frequency	Percent
Diploma	18	18.6
Undergraduate	43	44.3
Postgraduate	29	29.9
Doctorate	7	7.2
Total	97	100

From the results in Table 4.3, it was evident from the data that majority of the respondents had at least university degree 81.4% while the rest had diploma level of education. This is so because the study targeted both management employees and non-

management employees whose job description require both diploma and at least university degree. This result implies that the respondents were educated enough to understand the questions and give credible information.

4.3.3 Distribution of the Respondents Based on Age

Age of the respondents was also established as it helps to understand skill set of employees and managers at TSC. This is central in analysis of BPR human resource component. The results are presented on table 4.4 below.

Table 4.4 Age of the Respondents

Age	Frequency	Percent
18-24 years	3	3.1
25-35 years	11	11.4
36-45 years	29	29.9
46-55 years	39	40.2
Above 55 years	15	15.5
Total	97	100

In terms of age, a cumulative 11.4% were youth aged below 35 years, while 29.9% were aged between 36-45 years, 40.2% were aged between 46 and 55 years and 15.5% were aged above 55 years. This implies that majority of the employees at Teacher Service Commission are outside youth age.

4.3.4 Distribution of the Respondents Based on Years of Service

The study also sought to find out the length of service the respondents had served at Teachers Service Commission. The length of service is important in understanding the BPR resource skill set at TSC. The results were as shown in Table 4.5.

Table 4.5 Years of Service of the Respondents

Length of Service	Frequency	Percent
Between 1 and 3 years	11	11.3
Between 4 and 6 years	39	40.2
Between 7 and 9 years	27	27.8
10 and above years	20	20.6
Total	97	100

The results show that most of the respondents 40.2% had worked in the organization for between 4 and 6 years followed by 27.8% who had been in the organization for between 7 and 9 years. Another 20.6% had worked in the organization for 10 years and above while only 11.3% had worked for less than 4 years.

4.4 Descriptive Statistics

Results in this section describe the study variable in light of data collected. Descriptive statistics through both quantitative and qualitative data was presented.

4.4.1 Contribution of Process Management to Service Delivery in the Public Sector

The first objective of the study sought to establish the effects of process management on public service delivery at TSC. Process management is a key component of BPR as it helps in realigning processes for efficiency and effectiveness. To achieve this, a set of 5-point Likert questions were asked on process management where 1 was No extent and 5 very great extent and the results were as shown in table 4.6.

Table 4.6 Summary Statistics on Process Management at Teachers Service Commission

Statement	VGE	GE	M	LE	NE	Mean	SD
The management of TSC is characterized by strong leadership	40%	49%	7%	4%	0%	3.81	0.896
The change that can boost the efficiency lies in functional merging of its sections or service activities	29%	90%	49%	11%	2%	3.15	1.083
TSC has open communication between top management and employees	36%	11%	47%	7%	0%	3.39	1.047
Employees are knowledgeable and skilled on all the work processes	36%	47%	13%	4%	0%	4.18	0.834
TSC has a formal process of monitoring performance of directorates	11%	58%	22%	9%	0%	4.12	0.784
Overall mean						3.73	0.9288

Majority of the respondents agreed to a great extent the management of TSC is characterized by strong leadership (mean=3.81). This suggests that presence of process management structure. The respondents further agreed to a great extent that employees are knowledgeable and skilled on all the work processes (mean=4.18). The results also revealed that the respondents agreed that to a great extent TSC has a formal process of monitoring performance of directorates (mean= 4.12). This demonstrates that performance management is central to TSC achieving its goals.

With regards to existence of open communication at TSC and functional merging of functions as a way of improving efficiency, the respondents believed that to a moderate extent as indicated by means of 3.39 and 3.15 respectively. These findings points to the

existence of relatively ineffective communication at TSC. The overall mean showed that the respondents believed that TSC has implemented the process management to a great extent. This implies that process design has been implemented in TSC as part of the BPR. These results concur with TSC strategic plan (2019-2023) that has prioritized process management. These findings concur with the results of Bokhari and Qureshi (2016) who found out those public sector organizations have adopted process management principles.

4.4.2 Influence of Business Process Resources on Service Delivery

The second objective of the study was to determine the influence of BPR resources on service delivery at TSC. This is important because BPR resources are key in the implementation of BPR. The results were as shown in Table 4.7 below.

Table 4. 7 Summary Statistics on Business Process Resources at Teachers Service Commission

Statement	VGE	GE	ME	LE	NE	Mean	SD
TSC has allocated more finances to train employees on BPR processes	56%	31%	4%	7%	2%	3.72	0.879
New software solutions have been used in BPR	62%	24%	7%	4%	2%	4.08	0.768
The organization has increased its budgetary allocation to implement BPR	38%	49%	4%	7%	2%	3.44	1.12
The organization has spent considerable investment in effecting change management	51%	33%	7%	4%	4%	3.66	0.834
Resources have been allocated to organized BPR benchmarking tours to public institutions that have effectively implemented BPR re-engineering	36%	2%	7%	51%	4%	2.46	1.09
Overall Mean						3.472	0.9382

The findings reveal that the respondents believed that TSC has allocated more finances to train employees on BPR processes (mean=3.72). This implies that human resources development is prioritized in BPR process. Findings also indicated that the respondents agreed that new software solutions have been used in BPR (mean=4.08). This suggests significant investment has been made to improve the IT system. Further the results showed that the respondents agreed that TSC has spent considerable investment in effecting change management (mean=3.66). This demonstrates the importance that the organization attaches to change management role in BPR process. The respondents stated that to low extent has the organization provided resources to BPR benchmarking tours to public institutions that have effectively implemented BPR re-engineering. The findings also found out that the respondents believed that to a moderate extent has the organization increased its budgetary allocation to implement BPR (mean=3.44). The findings suggest that resources have been deployed to BPR process but under more resources constraint. From the overall mean it was established that the respondents felt that TSC has provided BPR resources to a moderate extent. This concurs with the findings of Fältholm and Nilsson (2010) that indicated that resource mobilization for BPR in public sector is still low as compared to private sector.

Findings from the 2 government officials interviewed also showed that the government has prioritized significant resources allocations to improving the efficiency of public sector organization. When asked about their opinion about of whether every organisation needs to do engineering and the conditions when BPR will be appropriate the official provided the following remark:

Every government institution needs to walk in the shoe of a customer; it's high time we reviewed those processes. If BPR resources are appropriately utilised, they can

tremendously improve public services. However, if the institution does not plan, monitor and budget for continuous improvement then the gains can be futile

According to one of the Ministry of Finance official who participated in the study, the government provided TSC with some budget allocation for BPR process in the financial years 2015/2016. This affirms financial allocation for BPR processes from the government.

4.4.3 Effects of Information and Communication Technology on Service Delivery at Teachers Service Commission

The researcher also sought to establish the effects of ICT on service delivery at TSC. ICT is an important factor in that it helps improve efficiency, effectiveness, coordination and integration of processes in an organization. The results of the analysis are presented in Table 4.8 below.

Table 4.8 Summary Statistics on ICT at Teachers Service Commission

Statement	VGE	GE	ME	LE	NE	Mean	SD
Automated Human Resource Information Management System	40%	56%	2%	2%	0%	3.91	0.811
Use of Enterprise Resources Planning to link all departments	58%	42%	0%	0%	0%	3.61	0.789
Automated workflow & document flow system	44%	56%	0%	0%	0%	3.54	1.034
Electronic communication media such as email, intranet for internal communications	40%	60%	0%	0%	0%	4.36	0.692
Teleconferencing technologies are greatly in use at TSC	38%	62%	0%	0%	0%	3.47	0.993
Overall Mean						3.778	0.8638

With regards to automated human resource information management system, an analysis of the Likert responses indicated that the respondents were in agreement to a great extent (mean=3.91) TSC has developed automated management system. Similar results were found on the question of automated workflow & document flow system at

TSC (mean = 3.54). These results also showed that the organization has implemented Enterprise Resource Planning system and prioritized the use of electronic communication to a great extent (mean= 3.61 and 4.36 respectively). Conversely, the results indicated that the respondents believed that teleconferencing technologies are used to a moderate extent at TSC. The findings revealed that the respondents believed that TSC has invested in ICT to a great extent as part of BPR. This suggests that TSC has made significant investment to improve its ICT system and processes. This aligns with the findings of Soi (2017) that found out that Teachers service commission has made significant investment on various ICT technologies.

4.4.4 Role of Organization System on Public Sector Service Delivery

The last objective of the study sought to establish the role of organization system on public sector service delivery. Organization system is key in the implementation of BPR with, organizational structure, organization culture key in implementation of BPR. The results were as shown in Table 4.9 below.

Table 4.9 Summary Statistics on Organization System at Teachers Service Commission

Statement	VGE	GE	ME	LE	NE	Means	SD
Decentralized Units are central to TSC performance	16%	51%	27%	7%	0%	3.86	0.834
Specialized Units helps TSC achieve its mandates	7%	56%	31%	4%	2%	3.68	0.879
Team Work is an important value at TSC	31%	38%	20%	9%	2%	4.11	0.711
Customer Orientation is a central to all service delivery at the organization	20%	40%	33%	7%	0%	3.83	0.868
Employees at TSC are results and action oriented	40%	36%	13%	7%	4%	3.79	0.799
Overall Mean						3.854	0.8182

In terms of the organizational system, the respondents agreed that decentralized units and specialized units are central to TSC achieving its mandate (mean=3.86 and 3.68

respectively). The results also demonstrated that the respondents agreed that to a great extent is team work valued at TSC (mean=4.11), customer orientation prioritized at TSC (mean= 3.89) and employees at TSC are action oriented (mean=3.79). These findings demonstrate that there is general satisfaction amongst the TSC employees with the organization structure. The results from the overall mean showed that respondents believed that TSC has carried out re-organization of its organization system to a great extent. This demonstrates that BPR within TSC has also included TSC re-organization, particularly at the structure and cultural level. This supports the reorganization carried in TSC to make it congruent to the constitution thus enhancing service delivery (Republic of Kenya, 2016).

4.4.5 Service Delivery at Teachers Service Commission

The dependent variable of the study was service delivery. Service delivery was included in the study as it is the core mandate of the TSC, mostly to teachers and the general public.

Table 4.10 Summary Statistics on Service Delivery at Teachers Service Commission

Statement	VGE	GE	ME	LE	NE	Mean	SD
Turnaround time to serve clients has reduced	53%	0	44%	2%	0	3.67	0.945
Waiting time for serving clients has greatly improved	49%	9%	38%	4%	0	3.53	0.817
Customer complaints handling is much faster	42%	11%	42%	4%	0	3.88	0.782
There is increased realization of teachers expectations	31%	18%	42%	7%	2%	3.45	0.943
Teachers Satisfaction has greatly improved	13%	44%	38%	4%	0	3.74	0.833
Overall Mean						3.654	0.864

As shown in Table 4.10, respondents indicated that they believe that to a great extent the turnaround time to serve clients has reduced (mean=3.67). The respondents also

believed that waiting time for serving clients and teacher satisfaction has greatly improved (mean=3.53 and 3.74 respectively). Respondents were asked to indicate their views on customer complaints handling and realization of teacher's expectation. To this extent the findings revealed that respondents believe that to a great extent (mean=3.88) customer complaints handling is much faster. Additionally, the results showed that respondents believed that there is increased realization of teachers' expectation to a moderate extent (mean=3.45). Findings indicated that respondents believed that TSC has improved its service delivery to a great extent. These findings echo the findings in Teachers Service Commission (2019) that service delivery at TSC has improved to a considerably level although effort need to be placed to improve it further.

In as much as the results from staff at TSC indicated belief in overall service improvements the same was not shared among teachers.

Accordingly, the teachers who participated in the study mentioned that customer handling at TSC is still wanting. Concerning this it emerged that customer handling time period varies based on the nature of issue, with some of the teachers acknowledging that some issues take shorter time to resolve while other some take much longer time. Similar sentiments were experienced on turnaround time with teacher expressing dissatisfaction with turnaround time at TSC as demonstrated in the excerpt below:

I have to go to TSC a number of times for my issue to be resolved and I am not happy about it.

Generally, the teachers who participated in the informant interviews expressed dissatisfaction on how the organization solves teacher's grievances and complaints while expressing satisfaction with human resource management system, payment

system, deployment and performance monitoring. This shows that the overall satisfaction of teachers with TSC service delivery is mixed.

Delocalization does not consider families with school going children and I find it very unfair and inconsiderate

From the views of the teachers it was established that majority of the teachers felt that service delivery, particularly for retirees is slow as teachers are required to come to the headquarters a number of times. Some of the teachers also felt that following up on promotion with TSC is a major challenge. Another issue that emerged from the teachers was in regard to insensitive policies on teacher promotion. Some of the teachers felt that they have stagnated on the same job group for long and their pleas have fell on deaf ear. Thus it is evident from teachers who participated in the study still consider service delivery at TSC as still not adequate.

Ministry of Finance officials stated that they have seen that the reengineered process has been able to support the automated government financial system as seen below:

Teachers Service Commission has an efficient system that ensures that teachers are paid on time which is an improvement from the past

4.5 Regression Analysis

Regression Analysis between the components of BPR and service delivery was conducted. The results are presented in the continuing sections.

4.5.1 Diagnostic Tests

Assumptions tests were checked before conducting ANOVA regression analysis. This was carried out as parametric tests require the meeting of certain assumption before analysis. Normality tests and multi-collinearity tests were checked.

4.5.1.1 Multicollinearity

Based on the collinearity output shown in table 4.11, the Variance Inflation Factor (VIF) values indicate that there is no collinearity between the independent variables in the model. A VIF value equal to 1 indicates no correlation while a VIF value of between 2 and 5 indicates moderate correlation and a VIF value greater than 5 to 10 indicates high correlation.

Table 4.11 Collinearity Statistics

Variable	Tolerance	VIF
Process Management	0.915	1.078
BPR Resources	0.86	1.24
ICT	0.794	1.29
Organization System	0.814	1.27

Therefore, the results in Table 4.11 indicate that there was no correlation between variables.

4.5.1.2 Normality Test

A normality test was conducted on the data to determine the distribution of data in the series. The aim of the test was to determine the normality of the variables for analysis. Shapiro Wilk test was used to test normality.

Table 4.12 Normality Tests

Variables	Wilt Tests	P-values
Process Management	0.8993	0.014
BPR Resources	0.9233	0.026

ICT	0.9956	0.023
Organization System	0.442	0.072
Service Delivery	0.7967	0.0036

From the results of the Shapiro Wilk test the results indicated that all the variables were normal except organization system. This is attributed to data collection method through likert Question. Ghauri and Grønhaug (2005) states that it is common for some of the likert scores to exhibit non normality depending on the reason that responses are limited to given choices.

4.5.2 Regression Analysis Results

Regression analysis was performed to determine the effects of the four predictor variables on the service delivery at Teacher Service Commission. The results were as shown in Table 4.13

Table 4.13 Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.765a	0.582	0.536		0.634

a. Predictors: (Constant), Process Management, BPR resources, ICT, Organization System

The model had a coefficient of determination (R^2) = 0.582, indicating that 58.2% of the variation in service delivery was explained by the independent variables in the model leaving 41.8% of the variations to be explained by variables not in the model. Model therefore provided a strong fit. Adjusted R^2 indicates the true behaviour of R^2 that varies in accordance with the changes in independent variables.

Additionally, the F-statistic is significantly greater than 1 thus indicating the appropriateness of the model in testing the relationship between independent variable and the dependent variable (Table 4.14). This means that the model is appropriate for use in interpreting the effects of BPR on service delivery at Teachers Service Commission.

Table 4.14 ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18.982	4	4.7455	83.254	.000b
	Residual	5.334	93	0.057		
	Total	24.316	97			

a. Dependent Variable: Service delivery

b. Predictors: (Constant), process management, BPR resources, ICT, Organization System

The general regression Model arrived was $Y = 0.137 + 0.537X_1 + 0.616X_2 + 0.389X_3 + 0.132X_4$

Where;

X_1 = process management X_2 = BPR resources X_3 = ICT system X_4 = organization system and Y = Service delivery

Hence; Service delivery at TSC = $0.137 + 0.527$ process management + 0.616 Business process resources + 0.389 ICT system+ 0.132 Organization system.

Table 4.15 Coefficients

Model	Unstandardized		Standardized		T	Sig.
	Coefficients		Coefficients			
	B	Std. Error	Beta			
(Constant)	0.137	0.502			1.032	0.08
Process Management	0.527	0.094	0.546		6.238	0.00
BPR resources	0.616	0.101	0.712		7.643	0.00
ICT	0.389	0.07	0.456		4.395	0.02
Organization Systems	0.132	0.125	0.111		1.068	0.315

a Dependent Variable: Service delivery

The Y- Intercept (Constant, $\beta_0 = 0.137$), predict the service delivery at Teachers Service Commission when all other variables are zero, implying that implementation of business process re-engineering process which include; process management, BPR resources, ICT and organization system, service delivery at TSC will be 0.137. From the analysis, process management was found to have significant relationship with service delivery at TSC ($\beta = 0.527$, $p < 0.05$). This implies that a unit increase process management activities results to service delivery by 0.527. BPR resources the study revealed had significant relationship with service delivery at TSC ($\beta = 0.616$, $p < 0.05$). Hence a unit increase in BPR resources results to improvement in service delivery by 0.616 units.

From the table 4.15, ICT system was found to have significant effect on service delivery ($\beta = 0.389$, $p < 0.05$). This demonstrates that an increase in investment in ICT system improves service delivery by 0.389 units. Study findings also indicated that organization system had no significant relationship with service delivery ($\beta = 0.132$, $p > 0.05$). However, a unit increase in organization system may result to service

improvement by 0.155 units. From the table 4.15, BPR resources X2 with ($\beta = 0.616$, $p < 0.05$) has the strongest relationship with service delivery at TSC, then followed by process management X1 ($\beta = 0.527$, $p < 0.05$), ICT system X3 ($\beta = 0.389$, $p < 0.05$) and finally organization system X4 ($\beta = 0.132$, $p > 0.05$) respectively.

CHAPTER FIVE: SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The purpose of the study was to assess the effect of business process re-engineering on public sector service delivery in Kenya. Specifically, the study sought to assess the effect of business process re-engineering on public sector service delivery in Kenya, to assess the contribution of Process Management to the public sector service delivery in Kenya, to determine the influence of BPR resources on the public sector service delivery in Kenya, to establish the extent to which Information and Communication Technology (ICT) system affects public sector service delivery in Kenya and to determine the role of organizational system on the public sector service delivery in Kenya. A summary of the study results accompanied with discussion, conclusions and recommendations is presented in this section.

5.2 Summary of Major findings

The major findings are based on the following objectives: to assess the contribution of Process Management to the public sector service delivery in Kenya, to determine the influence of BPR resources on the public sector service delivery in Kenya, to establish the extent to which Information and Communication Technology (ICT) system affects public sector service delivery in Kenya and to determine the role of organizational system on the public sector service delivery in Kenya.

5.2.1 Contribution of Process Management to the Public Sector Service Delivery in Kenya.

The first research question involved assessing the effect of business process re-engineering on public sector service delivery in Kenya. The study findings revealed that

respondents believed that TSC has adopted process management to a great extent in different dimensions. The study also indicated that business process management significantly affects the service delivery at Teachers Service Commission. These results suggest that public sectors in Kenya have adopted business process management as part of business process re-engineering.

5.2.2 The Influence of BPR Resources on the Public Sector Service Delivery in Kenya

The second research question what is the influence of BPR resources on public sector service delivery in Kenya. It was found that most of the respondents were in agreement to a great extent the organization has allocated significant resources for business process re-engineering. Further, the findings showed that the organization has allocated significant resources to training of employees, change management and ICT development, with less resources allocated to benchmarking tours. The study findings also suggested that BPR resources significantly affect the service delivery at Teachers Service Commission. The findings also indicated that BPR resources are strongly related with service delivery at TSC.

5.2.3 Extent to which Information and Communication Technology (ICT) System Affects Public Sector Service Delivery In Kenya

The study findings demonstrated that ICT system has been adapted to great extent in public sector. On ICT system adopted, the findings revealed that significant investment has been made in automation of system, adoption of Enterprise Resource Planning systems and internet communication system. However, the findings revealed that the usage of teleconferencing facilities at TSC is still low. Additionally, the study showed

that information and communication technology had a moderate effect on service delivery in Kenya.

5.2.4 The Role of Organizational System on the Public Sector Service Delivery in Kenya.

The study findings revealed that respondents believed that organization system has been structured in tandem with business process re-engineering. Further results revealed that the respondents believed that decentralized units, specialized units, customer orientation, action oriented and team culture have greatly contributed to strong organization system. Findings also showed that organization system has no significant relationship with service delivery at TSC.

5.3 Discussion of Findings

The results of the ANOVA's on the first objective revealed that business process management significantly and positively associated with organizational service delivery. These results show that an increase in process management activities results in significant improvement in service delivery. The focus of process management is on how different departments work together to improve organization performance. These study findings align with the results of Kohlbacher and Reijers (2013) that process management greatly contributes to organization performance.

The second objective of the study was to analyse the effect of BPR resources on service delivery. The study results showed that there exists a positive and significant relationship between BPR resources and service delivery at TSC. Abuto (2015) argues that BPR resources are value adding mechanisms that impacts on service delivery processes. These results align to the findings by Ogbo et al. (2015) who showed that banks that have invested in BPR resources are more likely to experience improved

performance in banking sector. Similarly, Kassahun (2012) established that BPR resources are a critical success factor in organization performance in public sector echoing the results of the current study.

The results affirm the Results Based Theory because it shows that public sectors can possess or acquire resources that may enhance their performance. The RBV facilitates creation of public value by capitalizing on the capabilities and assets of an organization (Peteraf & Barney 2003; Hansen 2007).

The study showed that ICT has significant effect on service delivery at TSC. This suggests that service improvement in public sector is greatly dependent on the level of ICT investments. According to Soi (2017), TSC adoption of ICT was meant to obtain a competitive edge in the dynamic environment. According to Chironga, Leke, Lund, and Van Wamelen (2016) IT acts as an enabling tool in attaining customer service advantages in three ways: operational efficiency; clerical effectiveness/automation; and/or information generation and strategic effectiveness. Developments such as the satellite television and Internet have created new means and audiences through which companies can disseminate their information. These results are in support of the findings by Yator and Shale (2014) who concluded that ICT significantly improves service delivery. The study also supports Technological Acceptance Model Theory which shows, firms that acquire technology experienced more benefit compared to other organizations.

Finally, the results indicated that organization structure has no significant relationship with service delivery. This shows that organization structure on its own may not results to improvements in service delivery. This is echoed by Andersen and Jonsson (2006) who argue that organization structure does not affect organization performance directly

but through organizational learning and innovation, factors which were not tested in the current study. These results contradict the findings by Hao, Kasper and Muehlbacher (2012) that demonstrated that organizational structure impacts organization performance. As opposed to the current study, their study included organizational learning and innovation as aspects of organization structure. The results do not provide evidence to support the Contingency Model Theory that states organizational performance is dependent on organizational characteristics and its ability to confirm to emerging issues.

5.4 Conclusion

BPR resources had significant effect on service delivery at TSC. This suggests that managers in public sector seeking to improve service delivery should consider prioritize BPR resources as a proper strategy. The results support the theory of Resource Base View (RBV). On the overall, the study posits that the use of BPR resources is a suitable strategy for improving public sector service delivery. The study findings also support technology acceptance model that the use of ICT results to significant efficiency in service delivery. Results from the study suggested that ICT results to significant improvement in service delivery. However, the results do not affirm contingency theory that argues that organization system redesign; can result to improvement in service delivery. Study results showed that organization system has no significant association with service delivery at TSC.

The study concludes that for public sector organization to improve service delivery they must adopt a process-oriented approach, apply continuous process improvement methods, and develop process management approach. Organization structure was found to have no significant effect on service. The findings reinforce the position that

organization structure does not directly contribute to service delivery but possibly through other mediating and moderating organization factor. ICT was established as a significant predictor of service delivery. This affirms the position that ICT is pivotal to public sector service delivery as it helps public sector deliver serviced efficiently and effectively.

5.5 Recommendation

The study found out that ICT practices had significant effect on service delivery. Therefore, the study recommends TSC to increase integration of ICT in their operation to enable the organization to improve the efficiency and effectiveness of service delivery. The study also recommends that the management should provide enabling technological systems that fit newly redesigned business processes for effective public service delivery.

From the study findings it was established the process management has significant effect on service delivery. Thus the study recommends that public sector organizations that intend to improve service delivery should drastically change the business processes since it will result to business process improvements and service delivery.

The study found out that BPR resources significantly affects service delivery. Thus the study suggests the need for top management in public sector to continue offering support and commitment to BPR by allocating and channelling the necessary resources. The study also recommends the need for public sector organization to provide sufficient financial resources and competent personnel for the required process changes for improved service delivery.

5.6 Areas for further Research

The study also recommends the need for qualitative study over the same with focus on perspective of managers only as a way of gaining in depth information on the study variables. Further the study recommends the need to include or test other intervening variables in the study.

REFERENCES

- Abdullah, H. S., & Ahmad, A. A. (2001). A Study of the Use of Information Technology and its Impact on Service Quality in the Malaysia Public Sector. *Asian Review of Public Administration*, 8(1), 7-29.
- Abuto, J. O. (2015). *Business Process Re-Engineering as an Approach to Strategic Change at Kenya Revenue Authority* (Unpublished master's dissertation). University of Nairobi, Kenya.
- Abuto, J. O. (2015). *Business Process Re-Engineering as an Approach to Strategic Change at Kenya Revenue Authority* (Unpublished master's dissertation). University of Nairobi, Kenya.
- Agwu, M. O. (2014). Organizational Culture and Employees Performance in the National Agency for Food and Drugs Administration and Control (Nafdac), Nigeria. *Global Journal of Management and Business Research*, 14(2), 1-10.
- Akam, G. U., Okeke, M., Kekeocha, M. E., & Onuorah, A. N. (2018). Business Process Reengineering Resources and the Performance of Quoted Brewing Firms in Nigeria. *Asian Business Research Journal*, 3(1), 15-25.
- Albadvi, A., Keramati, A., & Razmi, J. (2007). Assessing the Impact of Information Technology on Firm Performance Considering the Role of Intervening Variables: Organizational Infrastructures and Business Processes Reengineering. *International Journal of Production Research*, 45(12), 2697-2734.
- Al-Mashari, M., & Zairi, M. (2000). Revisiting BPR: A Holistic Review of Practice and Development. *Business Process Management Journal*, 6(1), 10-42.
- Alrhaimi, S. A., & Alhumshry, F. (2015). The Impact of Internal Recruitment on Job Satisfaction in Jordanian Mobile Companies. *Arab Economic and Business Journal*, 10(2), 130-138.
- Andersen, J., & Jonsson, P. (2006). Does Organization Structure Matter? On The Relationship Between the Structure, Functioning and Effectiveness. *International Journal of Innovation and Technology Management (IJITM)*, 3(3), 237-263. doi:10.1142/S0219877006000788.
- Bokhari, A. S., & Qureshi, R. J. (2016). Business Process Re-Engineering in Public Administration of Kingdom of Saudi Arabia. *International Journal of Information Engineering and Electronic Business*, 8(4), 10.
- Bryson, J. M., Ackermann, F., & Eden, C. (2007). Putting the Resource-Based View of Strategy and Distinctive Competencies to Work in Public Organizations. *Public Administration Review*, 67(4), 702-717.
- Buchanan, D., & Bryman, A. (2007). Contextualizing Methods Choice in Organizational Research. *Organizational Research Methods*. 10(3), 483-501. doi: 10.1177/1094428106295046.

- Carley, K. M., & Lin, Z. (1997). A Theoretical Study of Organizational Performance under Information Distortion. *Management Science*, 43(7), 976-997.
- Carmeli, A., & Tishler, A. (2004). Resources, Capabilities, and the Performance of Industrial Firms: A Multivariate Analysis. *Managerial and Decision Economics*, 25(6-7), 299-315.
- Chen, S. C., Shing-Han, L., & Chien-Yi, L. (2011). Recent Related Research in Technology Acceptance Model: A Literature Review. *Australian Journal of Business and Management Research*, 1(9), 124.
- Chironga, M., Leke A., Lund S. & Van Wamelen, A. (2011). Cracking the Next Growth Market: Africa. *Harvard Business Review*, 89(5), 117-122.
- Ciliberto, F. (2006). Does Organizational Form Affect Investment Decisions? *The Journal of Industrial Economics*, 54(1), 63-93.
- Claver, E., Llopis, J., Reyes González, M., & Gasco, J. L. (2001). The Performance of Information Systems through Organizational Culture. *Information Technology & People*, 14(3), 247-260.
- Cochran, W. G. (1977). *Sampling Techniques* (3rd ed.). New York: John Wiley & Sons.
- Constitution of Kenya. (2010). *The Constitution of Kenya*, 2010. Retrieved on 2019, May 7 from <https://www.refworld.org/docid/4c8508822.html>
- Csaszar, F. A. (2008). Organizational Structure as a Determinant of Performance: Evidence from Mutual. *Funds Strategic Management Journal*, 33(6), 611-632. doi:10.1002/smj.1969
- Cummings, T. G. (2007). *Handbook of Organizational Development*. Thousand Oaks: Sage Publishing
- Daft, R. L. (2001). *Essentials of Organization Theory and Design*. South Western: Educational Publishing.
- De Cenzo, D. A., Coulter, M., & Robbins, S. P. (2011). *Fundamentals of Management*. Hallow: Pearson Higher Ed.
- Debela, T., & Hagos, A. (2011). *The Design and Implementation of Business Process Reengineering in the Ethiopian Public Sector: An Assessment of Four Organizations*. African Books Collective. Ethiopia: OSSREA.
- Donaldson, L. (2001). *Foundations for Organizational Science: The Contingency Theory of Organizations*. Thousand Oaks, CA: SAGE Publications, Inc.
- Ducey, A. J. (2013). *Predicting Tablet Computer Use: An Extended Technology Acceptance Model*. *Graduate Theses and Dissertations*. Retrieved on 2019, May 14 <https://scholarcommons.usf.edu/etd/4471>.
- Duve, R., & Tambudzai, Z. (2015). *Impact of ICT on Service Management in the Zimbabwean Public Sector: a case of Zimbabwe National Road Administration*

(ZINARA): Paper prepared for the Midlands State University 1st International Research Conference: Driving Socio-Economic Development through Value Addition and Sustainable use of Resources, held at Elephant Hills Resort, Victoria Falls, Zimbabwe 14-16 July 2015.

- Dzhumaliev, S., & Helfert, M. (2008, April). A Conceptual Framework for Handling Complex Administrative Processes in E-Government. *In International United Information Systems Conference* (pp. 417-428). Springer, Berlin, Heidelberg. Retrieved on 2019, May 25 from [https://www.academia.edu/909673/Introducing e-gov history definitions and issues. html](https://www.academia.edu/909673/Introducing_e-gov_history_definitions_and_issues.html)
- Fältholm, Y., & Nilsson, K. (2010). Business Process Re-Engineering and Balanced Scorecard in Swedish Public Sector Organizations: Solutions for Problems or Problems for Solutions? *International Journal of Public Administration*, 33(6), 302-310.
- Fragoso, J. T. (2015). Business Process Reengineering In Government Agencies: Lessons from an Experience in Mexico. *Journal of Service Science and Management*, 8(3), 382.
- Gachoka, M. N. (2015). *Application of Business Process Re-Engineering as a Strategic Planning Tool by the Kenya Judiciary* (Unpublished master's project). University of Nairobi, Kenya.
- Gębczyńska, A. & Wolniak N. (2018). *Process Management Level in Local Government*. Philadelphia: Create Space.
- Ghatari, A. R., Shamsi, Z., & Vedadi, A. (2014). Business Process Reengineering In Public Sector: Ranking the Implementation Barriers. *International Journal of Process Management and Benchmarking*, 4(3), 324-341.
- Ghuri, P. N., & Grønhaug, K. (2005). *Research Methods in Business Studies: A Practical Guide*. Bergen: Financial Times Prentice Hall.
- GoK. (2017). Public Service Transformation Framework. Transforming Kenya Our Country Our People Our future 2017-2022. Retrieved on 2019, May 3 from [http://www.psyg.go.ke/images/downloads/public service transformation framework.pdf](http://www.psyg.go.ke/images/downloads/public_service_transformation_framework.pdf)
- Goksoy, A., Ozsoy, B., & Vayvay, O. (2012). Business Process Reengineering: Strategic Tool for Managing Organizational Change an Application in a Multinational Company. *International Journal of Business and Management*, 7(2), 89.
- Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge Management: An Organizational Capabilities Perspective. *Journal of Management Information Systems*, 18(1), 185-214.
- Grant, D. (2002). A Wider View of Business Process Reengineering. *Communications of the ACM*, 45(2), 85-90.

- Halachmi, A., & Bovaird, T. (1997). Process Reengineering in the Public Sector: Learning Some Private Sector Lessons. *Technovation*, 17(5), 227-235.
- Hammer, M. (2007). The Process Audit. *Harvard Business Review*, 85 (4), 111-123.
- Hansen, J. R. (2007). *Strategic Management when Profit isn't the End: Differences between Public Organizations*. Paper presented at 9th National Public Management Research Conference, University of Arizona, Tucson, United States.
- Hao, Q., Kasper, H. & Muehlbacher, J. (2012). How Does Organizational Structure Influence Performance through Learning and Innovation in Austria and China. *Chinese Management Studies*, 6, 36-52.
- Hawrysz, L., & Hys, K. (2013). Process-Oriented Management in Public and Private sector. *China-USA Business Review*, 12(9).
- Hesson, M. (2007). Business Process Reengineering in Use Public Sector: A Naturalization And Residency Case Study. *Business Process Management Journal*, 13(5), 707-727.
- Hirzel (2008) cited in Kohlbacher, M., & Reijers, H. A. (2013). The Effects of Process-Oriented Organizational Design on Firm Performance. *Business Process Management Journal*, 19(2), 245-262.
- Kassahun, A. (2012). *The Effect of Business Process Reengineering (BPR) on Public Sector Organisation Performance in a Developing Economy Context* (Doctoral dissertation. RMIT University, Melbourne, Australia). Retrieved from <https://research bank.rmit.edu.au/eserv/rmit:160253/Kassahun.pdf>
- Kathuri, W. (2015). *Effects of Organizational Systems on Service Delivery in Civil Organizations in Marsabit County* (Master's dissertation). Nairobi: United States International University.
- Keneth, B. (2013). *Organizational Cultural Change and its Impacts on Performance in Public Institution: The Case of Tanzania Public Services College* (Doctoral dissertation). The Open University of Tanzania.
- Khandwalla, P. N. (1977). *The Design of Organizations*. New York: Harcourt Brace Jovanovich.
- Kohlbacher, M. (2010). The Effects of Process Orientation: A Literature Review. *Business Process Management Journal*, 16(1), 135-152.
- Kohlbacher, M., & Reijers, H. A. (2013). The Effects of Process-Oriented Organizational Design on Firm Performance. *Business Process Management Journal*, 19(2), 245-262.
- Kombo, D. K., & Tromp, D. L. (2006). *Proposal and Thesis Writing: An Introduction*. Nairobi: Paulines Publications Africa.

- Kothari, C. R. (2004). *Research Methodology: Methods and Techniques*. New Delhi: New Age International.
- Kothari, C. R. (2010). *Research Methodology*. New Delhi: KK Gupta of New Age International.
- Lucas, T. (2016). The Application of Business Process Re-Engineering Systems to Enhance Service Delivery in the Public Sector. *European Journal of Research in Social Sciences* 4(7), 89-121.
- MacIntosh, R. (2003). BPR: Alive and Well in the Public Sector. *International Journal of Operations & Production Management*, 23 (3), 327-44.
- Mathew, G., Sulphay, M. M., & Rajasekar, S. (2015). Scope of Business Process Reengineering In Public Sector Undertakings. *Asian Social Science*, 11(26), 129.
- McAdam, R., & Corrigan, M. (2001). Re-Engineering in Public Sector Health Care: A Telecommunications Case Study. *International Journal of Health Care Quality Assurance*, 14(5), 218-227.
- McCormack, K. P., & Johnson, W. C. (2001). *Business Process Orientation: Gaining the E-Business Competitive Advantage*. Boca Raton: CRC Press.
- Meijaard, J., Brand, M. J., & Mosselman, M. (2005). Organizational Structure and Performance in Dutch Small firms. *Small Business Economics*, 25(1), 83-96.
- Miao, Y. (2010). How Does the Enterprise Implement Business Process Reengineering Management. In *2010 International Conference on E-Business and E-Government* (pp. 4100-4102). IEEE.
- Mlotshwa, S. G. (2007). *The Impact of Organisational Structures on Service Delivery: A Case Study of the uMgungundlovu District Municipality* (Doctoral dissertation, University of Stellenbosch, South Africa). Retrieved from <https://scholar.sun.ac.za>
- Mugenda, O. M., & Mugenda, A. G. (2003). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi: African Centre for Technology Studies.
- Mugenda, O. M., & Mugenda, A. G. (2004). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi: Acts Press.
- Mwai, P. (2013). *Information and Communication Technology and Service Delivery in Kenya Power*. (Unpublished master's research project). University of Nairobi, Kenya.
- Mwori, E. (2016). *The relationship between ICT strategy and public service delivery: a case study of the ICT Authority* (Master's dissertation). University of Nairobi.
- Nahm, A. Y., Vonderembse, M. A., & Koufteros, X. A. (2003). The Impact of Organizational Structure on Time-Based Manufacturing and Plant Performance. *Journal of Operations Management*, 21(3), 281-306.

- Nchorbuno, D., Shafiwu, A., & Ayamga, B. (2017). The Impact of Organisational Structures on Services to Polytechnic Students, *Asian Journal of Economics, Business and Accounting* 5(2): 1-13.
- Nwokorie, E. (2017). *Challenges to Effective Management of Public Sector Organizations in an Institutionally Corrupt Society: A Study of Nigeria*. Retrieved on 2019, April 13 from <https://www.researchgate.net/publication/319536089>
- Nyabuti, K., Chepkilot, R., & Zakayo, C. (2017). Influence of organizational culture on the employee performance in the civil service in Kenya. *African Research Journal of Education and Social Sciences*, 4(1). Retrieved from <http://arjess.org/social-sciences-research/influence-of-organizational-culture-on-the-employee-performance-in-the-civil-service-in-kenya.html>
- Ogada, G. O. (2017). *Business Process Re-Engineering and Organizational Performance of Commercial State Corporations in Kenya*. (Unpublished Dissertation). University of Nairobi, Kenya.
- Ogbo, A. I., Attah, E. Y., & Ugbam, C. O. (2015). Business Process Reengineering and Performance of Commercial Banks in North Central Nigeria. *International Journal of Contemporary Applied Sciences*, 2(10), 1 – 13.
- Ongaro, E. (2004). Process Management in the Public Sector: The Experience of One-Stop Shops in Italy. *International Journal of Public Sector Management*, 17(1), 81-107.
- Peteraf, M. A., & Barney, J. B. (2003). Unraveling the Resource-Based Tangle. *Managerial and Decision Economics*, 24(4), 309-323.
- Proctor, T., & Gray, L. (2006). Business Process Re-Engineering in the Public Sector: A Case Study. *Euromed Journal of Business*, 1(1), 84-97.
- Quinlan, C., Babin, B., Carr, J., & Griffin, M. (2019). *Business Research Methods* (2nd ed.). Andover, UK: South Western Cengage.
- Raczyńska, M. (2015). Process Management in Public Administration *Acta Universitatis Nicolai Copernici. Zarządzanie*, 42(4), 79-91.
- Republic of Kenya. (2012). *Sessional Paper No. 14 of 2012 of Reforming Education and Training Sectors in Kenya*. Retrieved on 2019, April 17 from [https://academia.ke.org/library/ministry of education. html](https://academia.ke.org/library/ministry%20of%20education.html).
- Republic of Kenya. (2013). *Ministry of Education, Science and Technology Strategic Plan 2013-2017*. Retrieved on 2019, May 25 from [http://www.psyg.go.ke/images/downloads. html](http://www.psyg.go.ke/images/downloads.html)
- Republic of Kenya. (2016). *Public Service Commission; Evaluation Report for the year 2015/2016 on Public Service Compliance with Values and Principles on Articles 10 and 232 of the Constitution*. Retrieved on 2019, April 17 from [https://www.publicservice.go.ke/index.php/17-updates/67. html](https://www.publicservice.go.ke/index.php/17-updates/67.html)

- Republic of Kenya. (2017). *Public Service Transformation Framework; Transforming Kenya Our Country Our People Our Future 2017-2022*. Retrieved on 2019, May 25 from <http://www.psyg.go.ke/images/downloads.html>
- Rinaldi, M., Montanari, R., & Bottani, E. (2015). Improving the Efficiency of Public Administrations through Business Process Reengineering and Simulation: A Case Study. *Business Process Management Journal*, 21(2), 419-462.
- Roberts, P., Priest, H., & Traynor, M. (2006). Reliability and Validity in Research. *Nursing Standard*, 20(44), 41-45. doi: 10.7748/ns2006.07.20.44.41.c6560
- Rodney, M., & Neil. (2010). Development of a Business Process Re-engineering Model Applicable to the Public Sector, *Total Quality Management*, 9:4-5, 160-163. doi: 10.1080/0954412988802
- Ruževičius, J., Klimas, D., & Veleckaitė, R. (2012). Influence of Organizational Culture on the Success of Business Process Management in Lithuanian Public Sector Organizations. *Current Issues of Business and Law*, 7(1), 1-16.
- Sakalas, A., & Venskus, R. (2007). Interaction of Learning Organization and Organizational Structure. *Engineering Economics*, 53(3). doi:10.5755/j01.ee.53.3.12245
- Schein, E. H. (2010). *Organizational Culture and Leadership* (4th ed.). San Francisco: Jossey-Bass.
- Schmelzer, H., & Sesselmann, W. (2006). *Practical Use of Business Process Management* (7th ed.). Munich: Hanser.
- Seip, B. K. (2011). Organizational Structure and Impact on Service Delivery: A Case Study of the Middle Ramu District Administration in Papua New Guinea. *Contemporary PNG Studies*, 15(67), 65-70.
- Soi, J. (2017). Information and Communication Technology and Service Delivery in Teachers Service Commission, Kenya. *International journal of Social Sciences and Information Technology*, 3(7), 2262-2274.
- Sungau, J. J., & Ndunguru, P. C. (2015). Business Process Re-Engineering: A Panacea for Reducing Operational Cost in Service Organizations. *Independent Journal of Management & Production*, 6(1), 141-168.
- Sungau, J., Ndunguru, P., & Kimeme, J. L. (2013). The Influence of Business Process Re-engineering on Service Quality: Evidence from Service Industry in Tanzania. *Interdisciplinary Studies on Information Technology and Business (ISITB)*, 1(1), 83-98.
- Swartz, E. M. J. (2018). *Challenges to the Implementation of Business Process Re-engineering of the Recruitment Process in the Ministry of Fisheries and Marine Resources Namibia*. Retrieved on 2019, April 2 from <https://pdfs.semanticscholar.org/5e7f/dbbc97acce77c20ce8ecec97fd8612bd24.pdf>

- Syed, R., Bandara, W., French, E., & Stewart, G. (2018). Getting it right! Critical Success Factors of BPM in the Public Sector: A Systematic Literature Review. *Australasian Journal of Information Systems*, 22(2018), 1-39.
- Taherdoost, H. (2017). Determining Sample Size; How to Calculate Survey Sample Size. *International Journal of Economics and Management Systems*, 2, 237-239
- Teacher Service Commission. (2012). *TSC Act 2012*. Retrieved on 2019, April 1 from <https://www.tsc.go.ke/index.php/media-centre/downloads/category/35-tsc-act.html>
- Teachers Service Commission. (2015). *Teachers Service Commission Strategic Plan 2015-2019*. Retrieved on 2019, April 1 from <https://www.tsc.go.ke/index.php/media-centre/downloads/category/14-strategic-plan.html>
- Teachers Service Commission. (2019). *Teachers Service Commission Strategic Plan 2019-2023*. Retrieved on 2019, April 1 from <https://www.tsc.go.ke/index.php/media-centre/downloads/category/14-strategic-plan.html>
- Teixeira, R., Koufteros, X., Peng, X., & Schroeder, R. (2008). The Relationship between Organizational Structure and Integration: The Effects on Manufacturing Performance. *Journal of Operations and Supply Chain Management*, 5(1), 70-81.
- Thaly, P., & Sinha, V. (2013). To Prevent Attrition in Business Process Outsourcing, Focus on People. *Global Business and Organizational Excellence*, 32(3), 35-43.
- Thong, J. Y., Yap, C. S., & Seah, K. L. (2000). Business Process Reengineering in the Public Sector: The Case of the Housing Development Board in Singapore. *Journal of Management Information Systems*, 17(1), 245-270.
- Usher, S. (1999). *Greek Oratory: Tradition and Originality*. Oxford: Clarendon Press.
- Van der Vyver, A., & Rajapakse, J. (2012). E-Government Adoption and Business Process Re-Engineering in Developing Countries: Sri Lankan and South African Case Studies. *International Journal of Innovation, Management and Technology*, 3(6), 778.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27(3), 425-478.
- Wade, M., & Hulland, J. (2004). The Resource-Based View and Information Systems Research: Review, extension, and suggestions for future research. *MIS Quarterly*, 28(1), 107-142.
- Wahlich (2004) cited in Kohlbacher, M., & Reijers, H. A. (2013). The Effects of Process-Oriented Organizational Design on Firm Performance. *Business Process Management Journal*, 19(2), 245-262.

- Weerakkody, V., Janssen, M., & Dwivedi, Y. K. (2011). Transformational Change and Business Process Reengineering (BPR): Lessons from the British and Dutch Public Sector. *Government Information Quarterly*, 28(3), 320-328.
- Wei Khong, K., & Richardson, S. (2003). Business Process Re-Engineering in Malaysian Banks and Finance Companies. *Managing Service Quality: An International Journal*, 13(1), 54-71.
- Wilfred, M., Kanchori, D., Nyandika, L., Yegon., R. (2014). An Assessment of Organizational Structure on Performance of Public Health Service Providers in Western Kenya. *European Journal of Business and Management*, 6(12), 31-37.
- Yator, R., & Shale, N. I. (2014). Role of Information Communication Technology on Service Delivery at the Ministry of Interior and Coordination of National Government: A case of Immigration service. *International Journal of Social Sciences and Entrepreneurship*, 1(12), 863-876.
- Yin, R. K. (2003). *Case Study Research Design and Methods* (3rd ed.). Thousand Oaks, CA: Sage
- Zheng, W., Yang, B., & McLean, G. N. (2010). Linking Organizational Culture, Structure, Strategy and Organizational Effectiveness: Mediating Role of Knowledge Management. *Journal of Business Research*, 63(7), 763-771.

APPENDICES

APPENDIX I: INTRODUCTION LETTER



AFRICA NAZARENE
UNIVERSITY

12th, July 2019

E-mail: researchwriting.mba.anu@gmail.com

Tel. 0202711213

Our Ref: 12M03EMBA083

The CEO,
Teachers Service Commission,
Private Bag - 00100
Nairobi, Kenya

Dear Sir/Madam:

RE: RESEARCH AUTHORIZATION FOR: MS. ELIZABETH ASIKO WANYANGA

Ms. Wanyanga is a postgraduate student of Africa Nazarene University in the Master of Business Administration (MBA) program.

In order to complete her program, Ms. Wanyanga is conducting a research entitled: **"Effect of Business Process Re-Engineering on Public Sector Service Delivery in Kenya: A Case of Teachers Service Commission"**

Any assistance offered to her will be highly appreciated.

Yours Faithfully,



MR. ISAAC MWANGI
AG. PRINCIPAL: NAIROBI CBD CAMPUS.

APPENDIX II: QUESTIONNAIRE

This questionnaire is intended to collect information from managers in Teachers Service Commission. The questionnaire will collect information on the impact of business process re- engineering on service delivery in Kenyan public sector. Be assured that everything you give will remain completely private and confidential.

1. **Gender** Male Female
2. **What is your highest academic qualification?**
 Diploma Undergraduate Degree Postgraduate degree Doctorate
3. **For how long have you served in this organization**
 Less than a year between 1-2 years between 3-4 years
4. **Your Age bracket** 18-24 years 25- 30 years 31-34 years 35-40 years 41-44 years 45-50 years above 50 years

SECTION A: PROCESS MANAGEMENT

To what extent do you agree or disagree with the following statements related to process management in your organization. Use a scale of 1-5 where 1= No extent, 2= little extent, 3=moderate extent, 4=great extent and 5=very great extent

Statement	1	2	3	4	5
a) The management of TSC is characterized by strong leadership					
b) The change that can boost the efficiency of public administration lies in functional merging of its sections or service activities.					
c) TSC has open communication between top management and employees					
d) Employees are knowledgeable and skilled on all the work processes					
e) TSC has a formal process of monitoring performance of Directorates					

SECTION B: BUSINESS PROCESS RE-ENGINEERING RESOURCES

The set of questions under this section are intended to assess business process re-engineering resources your organization. Please rate the extent to which the following resources have been deployed during the implementation of business process re-engineering [Tick (√)]: 1= To very small extent, 2= small extent 3= Moderate extent 4= great extent, 5= Very great extent

BPR Resources	1	2	3	4	5
TSC has allocated more finances to train employees on BPR processes					
New software solutions have been used in BPR					
The organization has increased its budgetary allocation to implement BPR					
The organization has spent considerable investment in effecting change management					
Resources have been allocated to organized BPR benchmarking tours to public institutions that have effectively implemented BPR re-engineering					

SECTION C: INFORMATION COMMUNICATION AND TECHNOLOGY

The set of questions under this section are intended to assess the ICT system that your organization has deployed for the BPR. Please rate the extent of use of the following technological resources by your organization [Tick (√) 0=no use of the technology 1= very low 2= low 3=moderate 4= high 5=very high]

ICT System	1	2	3	4	5
a) Automated Human Resource Information Management System					
b) Use of Enterprise Resource Planning to link all departments					
c) Automated workflow & document flow system					
d) Electronic communication media such as email, intranet for internal communications					
e) Teleconferencing technologies					

SECTION D: ORGANIZATION SYSTEM

The set of questions under this section are intended to assess the organization system at your organization. Use a scale of 1-5 where 1= No extent, 2= little extent, 3=moderate extent, 4=great extent and 5=very great extent

Organization System	1	2	3	4	5
a) Decentralized Units are central to TSC performance					
b) Specialized Units helps TSC achieve its mandates					
c) Team Work is an important value at TSC					
d) Customer Orientation is a central to all service delivery at the organization					
e) Employees at TSC are results and action oriented					

SECTION E: SERVICE DELIVERY

The set of questions under this section are intended to assess the service delivery at your organization. Use a scale of 1-5 where 1= No extent, 2= little extent, 3=moderate extent, 4=great extent and 5=very great extent

Service Delivery	1	2	3	4	5
a) Turnaround time to serve clients has reduced					
b) Waiting time for serving clients has greatly improved					
c) Customer complaints handling is much faster					
d) There is increased realization of customer expectations					
e) Customer Satisfaction has greatly improved					

APPENDIX III: KEY INFORMANT GUIDE FOR TEACHERS

Tick or fill in where applicable.

1. Position of interviewee.....

2. How long have you been employed as a teacher by TSC?
.....
.....

3. What is your opinion about the performance of TSC in regards to its mandate? Please explain
.....
.....
.....
.....

4. In what ways has the service delivery at TSC improved or deteriorated according to your opinion.....
.....
.....
.....

5. Do you have anything else to add? Who else would you recommend I speak with?

**APPENDIX IV: KEY INFORMANT GUIDE FOR SENIOR GOVERNMENT
OFFICIALS**

1. Personal Details (Title of current position, Major responsibility, Length of stay with the organization, Role in reengineering, contact details)
2. What role do you think the government has played on the reengineering process at Teacher's service commission?
3. In your opinion do you think teacher's service commission has experienced unintended/unexpected results as an outcome of BPR implementation? Why do you think it happened?
5. From your experience, does every public organization need to do reengineering? Why or why not? Please provide your reflection about conditions when BPR will be appropriate and when it won't be.
6. Do you have anything else to add? Who else would you recommend I speak with?

**APPENDIX V: AFRICA NAZARENE UNIVERSITY RESEARCH
AUTHORIZATION LETTER**



**AFRICA NAZARENE
UNIVERSITY**

12th, July 2019

E-mail: researchwriting.mba.anu@gmail.com

Tel. 0202711213

Our Ref: 12M03EMBA083

The Director,
National Commission for Science,
Technology and Innovation (NACOSTI),
P. O. Box 30623, 00100
Nairobi, Kenya

Dear Sir/Madam:

RE: RESEARCH AUTHORIZATION FOR: MS. ELIZABETH ASIKO WANYANGA

Ms. Wanyanga is a postgraduate student of Africa Nazarene University in the Master of Business Administration (MBA) program.

In order to complete her program, Ms. Wanyanga is conducting a research entitled: "Effect of Business Process Re-Engineering on Public Sector Service Delivery in Kenya: A Case of Teachers Service Commission"

Any assistance offered to her will be highly appreciated.

Yours Faithfully,



f **MR. ISAAC MWANGI,
AG. PRINCIPAL: NAIROBI CBD CAMPUS.**

APPENDIX VI: NACOSTI RESEARCH PERMIT


 REPUBLIC OF KENYA
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION.


NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION.
 Date of Issue: 14/August/2019

RESEARCH LICENSE



This is to Certify that Ms. Elizabeth Wanyanga of Africa Nazarene University, has been licensed to conduct research in Nairobi on the topic: EFFECTS OF RE-ENGINEERING ON PUBLIC SECTOR SERVICES DELIVERY IN KENYA; A CASE OF TEACHERS SERVICE COMMISSION for the period ending : 14/August/2020.

License No: NACOSTI/19/458
Applicant Identification Number: 720157


Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Verification QR Code



NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.