

**INFLUENCE OF ENTREPRENEURIAL BEHAVIOUR
ON PERCEIVED SERVICE QUALITY BY
GOVERNMENT MINISTRIES IN KENYA**

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**Influence of Entrepreneurial Behaviour on Perceived Service
Quality by Government Ministries in Kenya**

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other university.

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DEDICATION

This thesis is dedicated to my parents, the late Samson Junge and Mary Junge for having equipped me with necessary values and objectives, as well as resources to pursue my desired goals. Dad thanks for your love for education and to mum for being my role model.

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TABLE OF CONTENTS

DECLARATION.....	ii
DEDICATION.....	iii
ACKNOWLEDGMENT	iv
TABLE OF CONTENTS	v
LIST OF TABLES	x
LIST OF FIGURES	xiii
LIST OF APPENDICES	xiv
ACRONYMS	xv
DEFINITION OF TERMS.....	xvi
ABSTRACT	xxi
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Overview	1
1.2 Background of the Study.....	1
1.2.1 Government Ministries of Kenya.....	3
1.2.2 Service Quality.....	5
1.3 Statement of the Problem	7
1.4 Objectives of the Study	8
1.4.1 General Objective	8
1.4.2 Specific Objectives of the Study.....	9

1.5 Study Hypotheses	9
1.6 Significance of the Study	9
1.6 Justification of the Study	10
1.8 Scope of the Study	11
1.9 Delimitations.....	11
CHAPTER TWO.....	14
LITERATURE REVIEW	14
2.1 Introduction.....	14
2.2 Perceived Service Quality.....	14
2.3 The characteristics of services	15
2.4 Service innovation	18
2.5 Theoretical Review	18
2.5.1 Prospect theory of Risk	18
2.5.2 Schumpeter.....	19
2.5.3 Diffusion of Innovation Theory	20
2.5.4 Theory of Planned Behaviour/Reasoned Action	29
2.5.5 Service quality Model	30
2.6 Conceptual Framework.....	32
2.7 Review of Literature on Variables.....	33

2.7.1 Entrepreneurial Behaviour	34
2.7.2 Employee Innovativeness	34
2.7.3 Employee Proactiveness	36
2.7.4 Employee Risk-taking Propensity.....	37
2.7.5 Work Environment Factors	37
2.7.6 Perceived Service Quality	40
2.8 Empirical Literature	41
2.9 Critique of the existing literature relevant to the study	46
2.10 Research Gap.....	48
CHAPTER THREE	51
METHODOLOGY	51
3.1 Introduction	51
3.2 Research design.....	51
3.3 Target Population	52
3.3.1 Sampling techniques	53
3.4 Data Collection Instruments.....	53
3.5 Pilot test.....	54
3.6 Data Processing and analysis	55
3.6.1 Qualitative Analysis.....	55

3.6.2 Quantitative Analysis	56
CHAPTER FOUR	61
RESEARCH FINDINGS AND DISCUSSION	61
4.1 Introduction.....	61
4.2 Response Rate.....	61
4.3 Diagnostic Test	61
4.3.1 Instrument validity	62
4.3.2 Reliability of the instrument.....	66
4.4 Descriptive analysis	67
4.4.1 Employee innovativeness	67
4.4.2 Employee pro-activeness.....	72
4.4.3 Employee risk taking.....	76
4.4.4 Perceived service quality.....	79
4.4.5 Work Environment.....	89
4.5 Inferential Analysis.....	95
4.5.1 Correlation analysis of Employee behaviour and Perceived Service Quality.....	95
4.5.2 Bivariate analysis of employee innovativeness and perceived service quality.....	97
4.5.3 Bivariate analysis of employee pro-activeness and perceived service quality.....	99

4.5.4 Bivariate analysis of employee risk taking and perceived service quality	101
4.5.5 Combined effect Model of Employee behaviour and Perceived Service Quality.....	104
4.5.6 Moderating effect of work environment	111
CHAPTER FIVE	115
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	115
5.1 Introduction	115
5.2 Summary of the Study Findings.....	115
5.3 Conclusions of the study	119
5.4 Recommendations from the study.....	121
5.5 Suggestions for Further Research	122
REFERENCES.....	123
APPENDICES	135

LIST OF TABLES

Table 1.1: The RATER Model – Service Quality Dimensions	6
Table 3.1: Population of Study	53
Table 3.2: Study Hypotheses and Analytical Models	58
Table 3.3: Operationalization of study variables	60
Table 4.1: Average Variance Extracted.....	63
Table 4.2: Correlations of study constructs	64
Table 4.3: Squared correlations and AVE	65
Table 4.4: KMO and Bartlett's	66
Table 4.5: Reliability statistics of the instrument	67
Table 4.6: Frequency table on Employee innovativeness	71
Table 4.7: Frequency table on Employee pro-activeness	75
Table 4.8: Frequency table on Employee risk taking	79
Table 4.9: Frequency table on Service quality	81
Table 4.10: Frequency table on Reliability inservice performance.....	83
Table 4.11: Frequency table on Responsiveness	85
Table 4.12: Frequency table on Assurance.....	87
Table 4.13: Frequency table on Empathy	88
Table 4.14: Frequency table on Work Culture	90

Table 4.15: Frequency table on Nature of work	94
Table 4.16: Correlation Results of Employee behaviour and Perceived Service Quality.....	96
Table 4.17: Model Summary Employee innovativeness and Perceived Service Quality.....	97
Table 4.18: ANOVA table Employee innovativeness and Perceived Service Quality	98
Table 4.19: Coefficients table Employee innovativeness and Perceived Service Quality.....	99
Table 4.20: Model Summary Employee pro-activeness and Perceived Service Quality.....	99
Table 4.21: ANOVA table Employee pro-activeness and Perceived Service Quality	100
Table 4.22: Coefficients table: Employee pro-activeness and Perceived Service Quality.....	101
Table 4.23: Model summary Employee risk taking and Perceived Service Quality	102
Table 4.24: ANOVA table Employee risk taking and Perceived Service Quality..	103
Table 4.25: Coefficients table Employee risk taking and Perceived Service Quality	104
Table 4.26: Normality test on residuals	105
Table 4.27: Autocorrelationtest of the residuals	106
Table 4.28: Heteroscedasticitytest of the residuals	107

Table 4.29: Multicollinearitytest of the model predictors	108
Table 4.30: Model Summary multiple regression	109
Table 4.31: ANOVA table multiple regression	109
Table 4.32: Coefficients table Multiple regression	110
Table 4.33: Model Summary moderated multiple regression	111
Table 4.34: ANOVA table moderated multiple regression	112
Table 4.35: Coefficients table Moderated Multiple regression	113

LIST OF FIGURES

Figure 2.1: Measuring service quality using SERVQUAL model	15
Figure 2.2: Adopter categorization on the basis of innovativeness	28
Figure 4.1: Histogram of the model residuals.....	105
Figure 4.2: Scatter plot for the combined effect model residuals	107

LIST OF APPENDICES

Appendix I: Questionnaire	135
Appendix II: Interview Guide.....	152
Appendix III: Observation Guide	153
Appendix IV: Factor loadings matrix	155
Appendix V: Durbin Watson Tables	160

ACRONYMS

IDP	-	Internally Displaced Persons
EAC	-	East Africa Community
EA	-	East Africa
LAPPSSET	-	Lamu Port and the New Transport and Development Corridor Leading to South Sudan and Ethiopia
ICT	-	Information Communication Technology
SERVQUAL	-	Service Quality
GDP	-	Gross Domestic Product
TRA	-	Theory of Reasoned Behaviour
TPB	-	Theory of planned behaviour
SMEs	-	Small and Mediums Enterprises
UNDP	-	United Nations Development Programme
USA	-	United States of America
SP	-	Strategic Plans
SPSS	-	Statistical Package for Social Scientists
AOV	-	Analysis of Variance
VIF	-	Variance Inflation Factors
OCB	-	Organizational Citizenship Behaviour
OLS	-	Ordinary Least Squares

DEFINITION OF TERMS

Innovation

Innovation at work is the process, outcomes, and products of attempts to develop and introduce new and improved ways of doing things. It involves implementing ideas toward better procedures, practices, or products. Innovation can occur at the level of the individual, work team, organization, or at more than one of these levels combined (Anderson, Potocnik & Zhou, 2014).

Risk Taking

Salazar (1997) explains that risk-taking is the tendency of an individual towards taking responsibility for own actions.

Proactiveness

According to Grant and Bateman (2000), proactive people are relatively unconstrained by situational forces, and they identify opportunities, act on them, show initiative and persevere until meaningful change occurs.

Behaviour

Behavior can be seen as a function of individual and environment (Sansone *et al.*, 2004). Behavior is also considered as socially observable human action influenced by individual processes of cognition, decision and intention (Bird & Schjoedt, 2009). Action cannot take place unless it is carried out by someone.

Entrepreneurial Behaviour: According to Bird and Schjoedt (2009) entrepreneurial behaviour is the study of human behaviour involved in identifying and exploiting opportunities through creating and developing new ventures.

Locus of Control	Government ministries employees' ability to view challenging situations within their ministries as being within their control and using the resources at their disposal to make such situations better with a view to improving the public's perception of their service quality.
Perceived Service Quality	The difference between actual services offered by government ministries and the perception of the public of such services. Looy <i>et al.</i> (2003), Zeithaml <i>et al.</i> (2006), and Grönroos (2001) define perceived service quality as the subjective assessment of the actual service experiences by the customer.
Idea Realization	Putting creatively conceived thoughts to their practical final form (Kahn, 2012).
Idea Promotion	Coalition building and mobilization of resources to enhance implementation of new practices in the ministries so as to consistently build entrepreneurial behaviour and consequently, consistently deliver quality.
Opportunity seeking	Being updated on the happenings in the ministry with a view to identifying situations that provide a chance to discharge duties in a valuable customer-focused manner.
Forward-looking	Prediction about what the public's perception of services offered by government ministries might be in the future so as to tailor services towards this foreseen perception.

Aggression

Undertaking the risk of approaching tasks in a different way from the routine in government ministries with a view to delivering services in unique and satisfying ways to the public. The employee was, in the context of this study, viewed as a public entrepreneur in a government ministry setting, who possesses an ability to create an energetic, unique working environment in the ministry by performing a set of activities and practices, aimed at providing quality services for the citizen.

Tangibility

The characteristic of service that it cannot be seen, felt, tasted or touched in the same manner that other tangible goods can be sensed. Appearance of physical facilities, equipment, personnel, and communication material that are used to provide services in government ministries.

Ananth *et al.* (2011) refers to tangibility as modern looking equipment, physical facilities, well dressed employees and materials that are visually appealing.

Reliability

The consistency of service performance in government ministries, which breeds dependability, from the first time the service is correctly performed. According to Zeithaml *et al.* (2006), it is the ability to perform the promised service dependably and accurately.

Responsiveness

This is the willingness on the part of government ministries' employees to assist the public and provide prompt service.

Assurance	The knowledge-ability and courtesy of government ministries' employees towards the public, their ability to inspire trust and confidence in handling the public.
Empathy	Ability of government ministries' employee to care for the public during service delivery and give them individualized attention. Their ability to put themselves in the public's shoes by seeing things through the public's eyes. According to Zeithaml et al (2006), "it means treating customers as individuals, giving them customized service".
Work Environment	It is the immediate surroundings of the government ministries. it involves the physical geographical location as well as the immediate surroundings of the specific government ministries. It is the context within which employees in government ministries work. Foldspang <i>et al</i> (2014) categorize working environment into physical working environment which includes the overall health and safety of the employee including the identifiable workplace, causes of accidents and illness, and the psychosocial working environment which includes, among other things, a set of job factors related to the interaction.
Work culture	The shared work values, beliefs, or perceptions held by employees of a specific government ministry. The glue that holds employees of a specific ministry together as a team. It consists of the underlying work assumptions and beliefs that employees of a specific government ministry share and that operate unconsciously.

Nature of work

The unique work that is done is a specific government ministry. This entails the basic daily core tasks carried out in the ministry and the circumstances encountered in undertaking the tasks.

ABSTRACT

Entrepreneurial behaviour is the willingness to render a service to a Kenyan citizen in a pleasant, satisfying manner. It can also be complex as to involve disagreeing with an existing political regime and starting a new nation. In government ministries in Kenya, entrepreneurial behaviour can surface in the form of a government officer discharging their duties in a different and valuable way from the norm. It is against this background that this study sought to establish the influence of employees' entrepreneurial behaviour on perceived service quality by government ministries in Kenya. The specific objectives were to analyze the influence of employee innovativeness on perceived service quality by government ministries in Kenya: examine the influence of employee pro-activeness on perceived service quality by government ministries in Kenya: evaluate the influence of employee risk-taking on perceived service quality by government ministries in Kenya and to assess the moderating influence of moderating factors on the relationship between entrepreneurial behaviour and perceived service quality by government ministries in Kenya. This study would help government ministries to identify elements within their work environment that could influence their entrepreneurial orientation and consequently, improve their service delivery to the public resulting to a more satisfied public. The study adopted descriptive survey research design. This being a census study; all the ministries were considered in the study and from all the ministries, all the four executive officers selected from every ministry to take part in the study as they are perceived to be knowledgeable on the issues under study and for which they are either responsible for their execution or they personally execute them. The respondents were selected purposively based on judgment by selecting only the 4 executive officers which yielded a response rate 100%.The questionnaire was pre-tested on pilot respondents who were not part of the study respondents but who were knowledgeable in the study aspects in order to ensure their validity and relevance. 10 officers were selected for 10 ministries and used for pilot study analysis. The researcher interviewed executive officers (administration) to further investigate their responses. Interview questions were used to gather data on work culture, nature of work, employee innovativeness, proactiveness and risk-taking and on perceived

service quality. The data collected was analyzed using descriptive and inferential statistics to establish how entrepreneurial behaviour influenced perceived service quality. Cronbach's alpha coefficient was used to measure the reliability of the scale, which was used to assess the interval consistency among the research instrument items. The regression results showed that employee innovativeness had significant and positive effect on perceived service quality by government ministries in Kenya. The regression results also showed that employee risk-taking had significant and positive effect on perceived service quality by government ministries in Kenya. Work environment had statistically significant moderating influence on the relationship between entrepreneurial behaviour and perceived service quality in government ministries in Kenya. The study recommends that government ministries should encourage employee entrepreneurial behaviour as it was established to positively influence the public's perception of services offered by government ministries. The study also recommended that the government should pay more attention to the work environment in government ministries as it was a key contributor to quality service delivery.

CHAPTER ONE

INTRODUCTION

1.1 Overview

An overview of the thesis will be presented in this chapter. The aim of this research was to study on the influence of entrepreneurial behaviour on perceived service quality by government ministries in Kenya. This chapter has nine sections that include background of the study, statement of the problem, objectives of the study, study hypotheses, significance of the study, justification of the study, scope of the study, delimitations and limitations. This chapter begins with the background of the study that outlines the broad field of the research, followed by problem statement and research objectives to identify the problems and the purpose of this research. Next section is the study hypotheses which guided this study's arguments and inquiries. Significance of the study was explained briefly on the importance and contribution of this research. Justification of the study indicating the necessity of this study was given together with the limits within which the study was undertaken. Delimitations of the study were also given showing the specific study topic, study variables and their degree of influence on the dependent variable. Limitations indicating the constraints that the study encountered in the course of research were also shown.

1.2 Background of the Study

A major concern for the government of Kenya today is how delivery of quality services by government ministries can be achieved and sustained. The level of accountability among public officials in the management of public affairs has consistently declined since independence. At the same time the efficient and effective delivery of public services to the ordinary Kenyan has continuously deteriorated as evidenced by perennial public complaints about substandard services by the government. There is hence an urgent need for senior government employees who can give new dimensions to managing government ministries in Kenya in order to deliver quality service to the public of Kenya (GOK, 2003). The government

structure put in place in 2013 is indicative of the government's commitment to address this urgent need (GOK, 2005). Government ministries have been known to offer substandard services to Kenyans, a factor that led to the introduction of performance contracts in government ministries and other government institutions in 2004 Kogei, Magugui, Yano, Chepkemei and Chebet (2013). Globalization and modernization of service delivery systems have too created an increasingly dynamic and competitive work environment. This has resulted to high demand for demonstration of competency by employees in the application of knowledge, skills and experience in work performance and results.

In Kenya Vision 2030, the national development strategy, the country aims at creating a globally competitive and adaptive human resource base to meet the requirements of the Vision. The country recognizes that her main potential for economic growth and development lies in mobilizing competencies in her people (GOK, 2007). Public servants are therefore required to demonstrate capacity to apply and utilize their core technical and general competencies in delivering perceived quality service to the citizenry (Public Service Competency Framework, 2011). To achieve performance in government ministries, entrepreneurial behavior of public officers seems to have potential. When workers are entrepreneurial, it means they are creative and innovative in their approach to issues in their work environment which leads to continuous improvement and a satisfied customer who they are intended to serve. Llewellyn and Jones (2003) believe that entrepreneurship is presented as one answer to the recurring problem of failing public services. Entrepreneurial behavior has been defined as the study of human behavior involved in identifying and exploiting opportunities through creating and developing new ventures (Bird & Schjoedt, 2009) as well as exploring and creating opportunities while in the process of emerging organizations (Gartner, Carter, & Reynolds, 2010). Entrepreneurial behavior is also increasingly recognized as a proponent to social change and facilitating innovation within established organizations (Kuratko, Ireland, Covin & Hornsby, 2005). This study will adopt definition of entrepreneurial behaviour by Kuratko, Ireland, Covin and Hornsby (2005) as, facilitating innovation within established organizations which in this study are government ministries. Entrepreneurial behaviour can be as simple as the willingness to render a service to a

Kenyan citizen in a pleasant, satisfying manner or as involving as rebelling against an existing political regime and starting a new nation. In government ministries in Kenya, entrepreneurial behaviour can surface in the form of a government officer discharging their duties in a different and valuable way from the norm. Thus, this research focused on the utility of the concept of entrepreneurial behaviour in government ministries in delivery of perceived service quality to the public of Kenya. The study tried to examine the usefulness of adopting an entrepreneurial behaviour in government ministries in Kenya.

1.2.1 Government Ministries of Kenya

The government of Kenya has 18 government ministries which are mandated by various responsibilities as discussed in this section. The Ministry of Development and Planning deals with inter-governmental relations, budget management, IDP policy formulation and implementation and relief food management. The ministry deals with some of the internal social problems affecting the government. The Ministry of Foreign Affairs is the representative of the nation to foreign nations. It has the responsibility of management of Kenya's foreign policy, management of Kenya's Diasporas issues, handling of protocol matters and liaison with foreign missions in Kenya. Education matters are managed under the Ministry of education. The ministry is responsible for curriculum development, quality assurance in education, education policy management and teacher education and management.

Environment, Water and Natural Resources ministry is charged with the responsibility of restoring strategic water towers, dam construction schemes, water quality, pollution control, flood control and land reclamation. The Ministry of Sports, Culture and Arts on the other hand, is charged with expansion of sports industry, development of creativity and performing arts, development of film industry and national archives/public records management. This ministry plays a crucial role in development of talent among the youth on whom the government is now placing much emphasis as far as development of entrepreneurial culture is concerned. The Ministry of Energy and Petroleum is responsible for exploration of natural resources with a view to development of cheap energy that will help ease the

burden of high cost of energy on the citizenry while at the same time greatly contributing to economic development. This is the ministry that is responsible for hydro-power development, fossil fuel exploration and development, rural electrification programme and oil and gas exploration.

Ministry of Agriculture, Livestock and Fisheries has national food security and policy as its primary concern. The ministry is charged with formulating food security policies that if implemented should alleviate the perennial food shortage in the country. The ministry is also charged with national irrigation policy, food security and bio-safety management. The Ministry of Industrialization and Enterprise Development on the other hand, has the potential to drive national entrepreneurship given its mandate of enterprise development. The ministry is charged with leather development, private sector development strategy, buy Kenya policy and co-operative governance. The Commerce, Tourism and East Africa Affairs ministry deals with policy on East Africa Community (EAC), EAC meetings and institutions, promotion and fast-tracking of EA integration and tourism policy management.

The Ministry of Mining is one of the ministries that were born with restructuring of the government of Kenya. It is charged with policies on quarrying and mining, management of health conditions and safety in mines, policy around extractive industry and resource survey and remote sensing. The Ministry of Defense is charged with the responsibility of ensuring national defense, defense intelligence and protection of national boundaries and support for civil authorities. This is a ministry that is crucial to the security of the nation and which therefore must have the resources that are required for it to discharge its duties at any given time. The National Treasury is mandated with the public resource mobilization, financial institutions oversight, public debate management and promotion for economic and financial governance.

Transport and Infrastructure ministry is charged with Protection of road services, motor vehicle inspection, implementation of LAPPSSSET project and national transport and safety policy are managed under ministry of transport and infrastructure. Ministry of Interior and Coordination of National Government is

charged with disaster and emergency response, border control point management, citizenship and immigration policy and services and management of boundaries, while the Ministry of Land, Housing and Urban Development is charged with surveying and mapping, land adjudication, settlement and public works policy and planning.

The Ministry of Health is responsible for health issues of the nation. It is charged with ensuring delivery of quality medical services to the nation. Its mandate is; registration of doctors and para-medics, public health and sanitation policy management, medical services policy and nutrition policy. The mandate of the Ministry of Information, Communication and Technology (ICT) includes; broadcast policy, public communications, telecommunication services and dissemination of public information and the Ministry of Labour, Social Security and Services is charged with community development policy, work place inspection, management of labour migration, international jobs and child welfare.

1.2.2 Service Quality

Service quality in this study refers to a comparison of the public's expectations with the actual performance of government ministries. A ministry with high service quality would meet the public's needs whilst remaining economically competitive. Improved service quality may increase economic competitiveness of a ministry. This aim may be achieved by understanding and improving operational processes; identifying problems quickly and systematically; establishing valid and reliable service performance measures and measuring the public's satisfaction and other performance outcomes.

The public's expectation of a particular service by the ministry was determined by factors such as recommendations, personal needs and past experiences. The expected service and the perceived service sometimes may not be equal, thus leaving a gap. Customers generally have a tendency to compare the service they 'experience' with the service they 'expect'. If the experience does not match the expectation, there arises a gap. Ten determinants that may influence the appearance of a gap were described by Parasuraman, Zeithaml and Berry in the SERVQUAL model (1988): reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer and tangibles. Later, the determinants were reduced to five: tangibles; reliability; responsiveness; service assurance and empathy in the so-called RATER model illustrated in Table 1:1.

Table 1.1: The RATER Model – Service Quality Dimensions

Dimension	Refers to	Specific Criteria That Customers Use
RELIABILITY Delivering on promises	Your ability to perform the promised service, dependably and accurately	<ul style="list-style-type: none"> - Timeliness - Accuracy consistency/regularity
ASSURANCE Inspiring trust and confidence	The knowledge and courtesy of staff, their ability to inspire stakeholders	<ul style="list-style-type: none"> - Staff competence - Respect for - Credibility - Probity and - Confidentiality - Safety and security
TANGIBLES Representing the service physically	The physical representations or images of your service	<ul style="list-style-type: none"> - Physical facilities - Equipment - Technology - Employees - Communication materials
EMPATHY Willingness to help every customer	Treating customers as individuals The caring individualized attention to individual stakeholders	<ul style="list-style-type: none"> - Access to staff, services, information - Clear, appropriate and timely communication - Understanding the Stakeholder - Appropriate Services for customer needs - Individualized attention
RESPONSIVENESS Being willing to help and provide prompt attention to requests	Your willingness to help customers	<ul style="list-style-type: none"> - Willingness to help - Prompt attention to questions - Problem solution - Complaint handling - Flexibility

Measuring service quality may involve both subjective and objective processes. In both cases, it is often some aspect of customer satisfaction which is being assessed.

However, customer satisfaction is an indirect measure of perceived service quality. Subjective and objective elements of service quality may be assessed in the following ways:

i. Measuring subjective element of service quality

Subjective processes can be assessed in characteristics (assessed by the SERVQUAL method); in incidents (assessed in Critical Incident Theory) and in problems (assessed by Frequenz Relevanz Analysis) a German term. The most important and most used method with which to measure subjective elements of service quality is the Servqual method.

ii. Measuring objective elements of service quality

Objective processes may be sub-divided into primary processes and secondary processes. During primary processes, silent customers create test episodes of service or the service episodes of normal customers are observed. In secondary processes, quantifiable factors such as numbers of customer complaints or numbers of returned goods are analyzed in order to make inferences about service quality.

1.3 Statement of the Problem

The manner in which services are delivered by government ministries in Kenya has been a major concern of the public, which it is intended to serve. Most government employees have accustomed themselves to just doing only that which the bureaucratic system that characterize the present government ministries requires them to do regardless of the changing needs of the public. Following of rules, staying out of trouble, doing just enough and never ever making a mistake “good enough for government work” that characterize government ministries are not a good recipe for the efficient production and delivery of high quality government ministries services and more so in the highly dynamic business environment where customers’ tastes and preferences are frequently changing (Osborne & Gaebler, 1992). There is an urgent need therefore, for government ministries’ systems and its employees to be more responsive to the changing demands of its customers, the public of Kenya.

Looking at the government ministries through a different lens, as an enterprise competing for customers in a saturated market place where there are other similar service providers holds the answer to doing away with the out-dated bureaucratic systems that do not meet the needs of today's complex citizen (Jamie & Albert, 2010). Since services offered by government ministries are intended to satisfy the needs of the public, it is of importance that government employees have the ability of view these services from the public's perspective to be able to effectively meet the service needs of the citizens. Adopting entrepreneurship practices into government ministries through improving in-house capacities may be the one best way to resolve recurrent perceptions of "failing government" services. A government with public servants who are entrepreneurial entails: The transformation of existing, outdated bureaucratic organizations into agile, anticipatory, problem-solving entities which can deliver value to the public that it is intended to serve.

Although government ministries and other government departments in Kenya have been re-organized with a view to attaining agile, anticipatory, problem-solving bodies which can deliver value to the public, the factors contributing to such value and their sustenance have not been investigated. While studies done in other countries indicate a relationship between entrepreneurial behavior in government organizations and quality service delivery to the public (Morris & Kuratko, 2002; Windrum & Koch, 2008; Kreiser *et al.*, 2002) there is little research to this effect in Kenya. The aim of this study therefore, was to fill this knowledge gap by exploring and examining how entrepreneurial behavior of employees of government ministries of Kenya may influence the perception of the public of services offered by government ministries of Kenya.

1.4 Objectives of the Study

1.4.1 General Objective

The general objective of this study was to assess the influence of entrepreneurial behavior of government ministries' employees on perceived service quality by government ministries Kenya.

1.4.2 Specific Objectives of the Study

The specific objectives of this study were to:

- i. Establish the influence of employee innovativeness on perceived service quality by government ministries in Kenya.
- ii. Examine the influence of employee pro-activeness on perceived service quality by government ministries in Kenya.
- iii. Evaluate the influence of employee risk taking on perceived service quality by government ministries in Kenya.
- iv. Assess the moderating influence of work environment on the relationship between entrepreneurial behaviour and perceived service quality by government ministries in Kenya.

1.5 Study Hypotheses

The study tested the following null hypotheses:

- H₀₁:** Employee innovativeness has no significant influence on perceived service quality by government ministries in Kenya.
- H₀₂:** Employee pro-activeness has no significant influence on perceived service quality by government ministries in Kenya.
- H₀₃:** Employee risk taking has no significant influence on perceived service quality by government ministries in Kenya.
- H₀₄:** Work environment has no significant moderating influence on the relationship between entrepreneurial behaviour and perceived service quality in government ministries in Kenya.

1.6 Significance of the Study

This study is instrumental in assisting the public service of Kenya to appreciate the need for entrepreneurship in its organization. Firstly, the findings will potentially help public servants in government ministries in Kenya to identify elements in their

ministries that could influence their ministries' as well as their individual entrepreneurial orientation thereby adding value to the government ministries' service delivery. Secondly, the study will be invaluable to the consumers of public sector services as, if the recommendations of this study are implemented, it would result to improved services and hence satisfaction of the public. Thirdly, if the recommendations of this study are implemented, it would enable the government of Kenya to role model what it is, at the time, focusing its efforts toward; service quality and entrepreneurship development. Finally, future researchers will have the advantage of accessing the study's literature as a basis for advanced studies either in the field of entrepreneurship in government organizations or in any other related scope.

1.6 Justification of the Study

Perceived service quality by government ministries in Kenya was necessary because of developments in the Kenyan modern society. Kenyan government ministries had to cope with increasing demands from both the government by whom they were financed in exchange for their public service delivery, and their clients, the public, to whom they provided their services. To effectively undertake their double-sided responsibility,

a new form of 'governance' was to be created at all levels of government. His Excellency, President Uhuru Kenyatta's effort to restructure the government of Kenya through collapsing the 44 government ministries into only 18 crucial ministries, was to ensure attainment of a government that was adaptable, responsive, efficient, and effective. Such a government was intended to produce high quality goods and services, be responsive to its clients, the public of Kenya, be led by persuasion and incentives rather than command, empower clients, and – above all – be entrepreneurial. Klein, Mahoney, McGahan, and Pitelis (2010) argue that entrepreneurial public organizations seek to unleash creative energy in pursuit of the public interest. They suggest that such public organizations may accomplish a number of objectives, including, but not limited to, altering the organizational landscape by changing administrative rules, processes, or organizational norms;

establishing new departments; redefining performance objectives; reorganizing preexisting departments; and creatively managing public needs.

Government ministries' employees had both an obligation and an opportunity. Their obligation: was to use their large numbers creatively; to utilize all the levers at their disposal to catalyze innovation towards new waves of growth to foster economic growth. Their opportunity: was to become entrepreneurs who creatively utilized government resources at their disposal to deliver quality. The Kenyan Government through its path to the realization of the nations' development agenda as enshrined in the First Medium Term Plan (2008 - 2012) and vision 2030 (GOK, 2007) realizes that an efficient, motivated and well trained public service is one of the major foundation pillars of an efficient public service (GOK, 2007).

Caruana *et al.* (2002) confirms that public sector entities can provide new value to the various stakeholders they serve by adopting an entrepreneurial approach with the resources over which they have control.

1.8 Scope of the Study

The conceptual scope of this study was limited to eighteen government ministries. The study covered all the ministries in the government and it covered the period between July 2011 and July 2014. The study focused on how government ministries employees' innovativeness, pro-activeness and risk-taking propensity influenced perceived service quality by government ministries in Kenya.

1.9 Delimitations

The motivation behind the study topic was the current effort by the government of Kenya to improve government's service delivery to its citizens hence it was believed this study would be a contributor to such effort. The delimitations of this study were as follows:

1. The Study topic

This study focused on entrepreneurial behaviour of government ministries employees only. With availability of time and money, the study would have included entrepreneurial behaviour of other government organizations.

2. Study Variables

The study concentrated on establishing whether the independent variables; employee innovativeness, employee proactiveness and employee risk-taking influenced the public's perception of services rendered by government ministries in Kenya, and whether there was a moderating effect of work environment on the relationship between entrepreneurial behaviour of government ministries' employees in Kenya and perceived service quality. The study would have, on availability of time, opted to include more variables influencing perception of services rendered by government ministries in Kenya.

3. Degree of Influence

The study also aimed at establishing the degree to which independent variables influenced perceived service quality, and that which work environment affected the relationship between employee entrepreneurial behaviour and perceived service quality.

The study variables were only five; three independent variables; employee innovativeness, employee proactiveness and employee risk-taking, one dependent variable; perceived service quality and one moderating variable, work environment. The study had the option of including more senior managers' entrepreneurial behaviour such as; discovering which would entail introducing new ways of undertaking work in their specific ministries with a view to delivering quality service, by benchmarking with both public and private organizations, creating and articulating quality service delivery visions for their ministries; Evaluating which would entail gathering relevant technical and market information that would enable their ministry deliver more public-focused services, focusing on an identified

valuable ideas and preparing policies that would ensure their sustainability; and exploiting which would entail sourcing for resources that would facilitate implementation of valuable innovative ideas. Exploiting behaviour of managers would also entail building teams and bypassing normal channels to have innovative ideas implemented without hindrance; and legitimating which would entail getting acceptance and co-operation from ministry members, selling valuable ideas to higher management, and maintaining their support, and providing legitimacy of the generated ideas both within and outside their specific ministries.

The research studied only eighteen government ministries. With availability of funds and time, it would have had a wider study population such as all public organizations in Kenya.

Limitations

Although the study/research has reached its aims, there were some unavoidable limitations.

1. The two visits allocated to observation per week may not have been adequate for the study to observe all that there was to entrepreneurial behaviour of employees in relation to public's perception of service quality. In the last three weeks the observation time was extended by one hour to enable adequate collection of information.
2. Since this study had an implication on the entrepreneurial inclination of the Executive Officers, it is unavoidable that a certain degree of subjectivity could be found in the study. It would have been more objective if more employees in various positions would have been involved. The occurrence likelihood of this limitation was reduced by collecting information through observation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the theoretical framework of entrepreneurial behaviour and the selected conceptual and empirical literature on the key study variables with the aim of highlighting the existing research gaps. The chapter specifically examines literature on entrepreneurial behaviour and service quality theories, the conceptual framework, and a summary of existing literature on the study variables.

2.2 Perceived Service Quality

Service quality is often conceptualized as the comparison of service expectations with actual performance perceptions (Zeithaml et al., 1990). It has been proposed that service quality is a multidimensional concept (Parasuraman et al., 1985). The physical intangibility of services and the often non-standardized product and interactive production process stress the importance of a perceived quality description suitable for services. Perceived service quality is most often described as the discrepancy between a customer's expectations and perceptions of performance (Carman, 1990). Because of the inherent physical intangibility of services, mental processing is extremely important but difficult. A humanistic, psychological based concept must be treated consequently and service quality has to be differentiated from the service level, or service quantity.

The expectations of customers are subject to external factors which are under the control of the service provider as shown on the diagram. The gap 5 on the diagram represents the difference between customers' expectations and customers' perceptions which is referred to as the perceived service quality (Kumar et al., 2009). This is similar to the findings of this study that perceived service quality is influenced by factors that can be controlled by employees which are; employee innovativeness, employee proactiveness and employee risk-taking (See Figure 2.1).

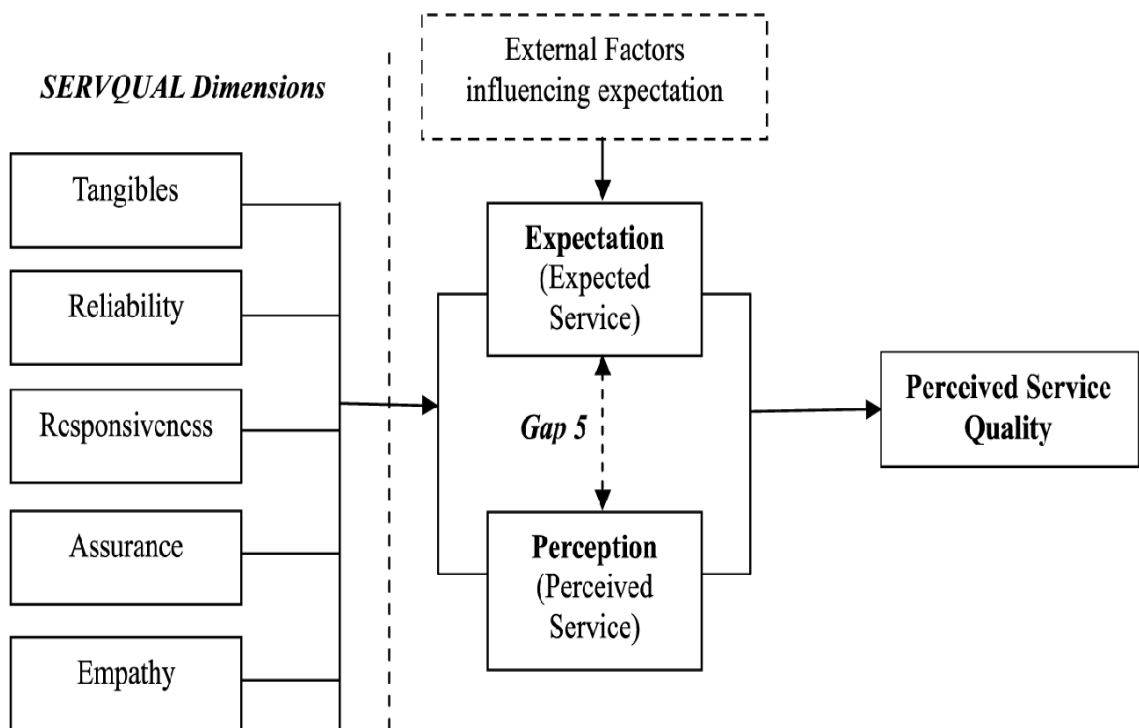


Figure 2.1: Measuring service quality using SERVQUAL model (Kumar et al, 2009)

2.3 The characteristics of services

The qualities of services can be divided into 2 major parts and two implied parts.

The major parts:

(a) Intangibility

Services cannot be touched as in the case of products. Customers do not have prior knowledge of the service before undertaking it.

(b) Simultaneity

Looy et al. (2003) argue that “these two qualities are responsible for other two implied qualities:

(c) Perish-ability

The attribute of perishability for services also has a long tradition. Adam Smith (1776) noted “the labour of the menial servant, on the contrary, does not fix or realize itself in any particular subject or vendible commodity. His services perish in the very instant of their performance”. In literature on services marketing research in the mid 1980s and later, perishability has often been associated with the unavailable option of storing or stockpiling services (Beaven & Scotti, 1990; Edgett and Parkinson, 1993; Kotler, 1994; Vargo & Lusch, 2004). In literature perishability is not only associated with the outcome of service, but also with the service provider's capacity: Because services is a deed or performance rather than a tangible item the customer keeps, it is “perishable” and cannot be inventoried. Of course, the necessary facilities, equipment, and labour can be held in readiness to create a service, but these simply represent productive capacity, but not the product itself (Lovelock and Wright, 2001).

(d) Heterogeneity

Heterogeneity of services concerns the difficulty in standardizing services (Edgett and Parkinson, 1993). In existing research heterogeneity has been related to different aspects of services: outcome (Beaven and Scotti, 1990; Lovelock and Gummesson, 2004; Palmer and Cole, 1995), production performance of different producers or persons (Beaven and Scotti, 1990; Lovelock and Gummesson, 2004; Palmer and Cole, 1995) and production performance over a certain period of time (Iacobucci, 1998; Zeithaml et al., 1985). In addition, heterogeneity has been assigned to heterogeneous participation of customers in a transformation (Palmer and Cole, 1995). These qualities of services are also, what differentiates it from the physical goods.

Intangibility: according to Zeithaml et al (2006) this is “the characteristic of service that it cannot be seen, felt, tasted or touched in the same manner that you can sense tangible goods”. It is the most significant quality of services. As Looy et al (2003), argued because of this, service quality evaluation cannot be made before and sometimes after purchasing a service. Unlike goods, consumers can make a choice and evaluate their quality before committing to purchasing it.

Simultaneity: Grönroos (2001) describes it as a characteristic of service whereby the customer does not only receive the service but participates in the service process as well as the production resource as well. Zeithaml et al. (2006) also includes that, it is a quality of service whereby it is sold first, then produced and consumed at the same time. The implication, as Grönroos (ibid) describes is that, quality control and marketing must therefore take place at the same time as the service process and production while Zeithaml et al. (ibid) has it that mass production is therefore impossible, and the quality of service and customer satisfaction will be highly dependent on what happens in “real time” including actions of employees, and the interaction between employees and customers. While goods are first produced, then consumed thereafter, and the customer needs not be present at the factory, while it is being manufactured.

Perishability: this characteristic of service means that it cannot be stored, inventoried, once produced it has to be consumed. According to Looy *et al.* (2003) the implication of this characteristic is that demand for most services is volatile and cannot always be predicted, secondly, when demand is high there are no accumulations of stock to accommodate the demand surplus. Physical goods can be stored and inventoried, in the event of low demand, can be accumulated, and when demanded again they can be recollected from their stores.

Heterogeneity: Zeithaml *et al.* (ibid) describes this quality based on the attribute of services as performances frequently produced by humans and received by different customers, therefore, there are no two services alike. Consequently, the employee delivering the service becomes the service in the eyes of the customers. The implication of it is that, ensuring consistent service quality is challenging, and depends on many factors that cannot be controlled by the supplier (employee). The service manager may not always know for sure if the service is being performed in a manner consistent with what was originally planned, and promoted. Here again, it is unlike most goods that can be standardized, and which maintaining a particular quality would only be a matter of technology and not a human factor. These factors make consumers to rely on different cues and perspectives when evaluating services, which may also influence their perception of the service quality and how much

satisfaction they can derive from consuming it, or whether they will derive satisfaction by it.

2.4 Service innovation

Innovation means people create values and ideas to the customers. It has become a driving force for organizations in the service sectors. One important mechanism via which service innovation influences consumers' loyalty is the formation of brand equity (Farquhar, 1989). Service innovation is a new or significantly improved service product offering and rarely it is limited to a change in the characteristics of the service product itself (Hertog, 2000). The unique integration of the resources and capabilities is the essence of overall service innovation (Kindstrom & Kowalkowski, 2014). Business model innovations are one of the service innovation types (Kindstrom & Kowalkowski, 2014). Service innovation can be equated with the creation of new value propositions by means of developing existing or creating new practices and/or resources (Pedersen & Nysveen, 2010; Skalen *et al.*, 2014).

2.5 Theoretical Review

According to Stoner *et.al* (2003), theories are perspectives or concepts or principles which people make sense of, in their world of experiences. The theories relevant to this study are; diffusion of innovation theory, theory of Planned Behaviour/Reasoned Action and the service quality model.

2.5.1 Prospect theory of Risk

Prospect theory is a behavioral model that shows how people decide between alternatives that involve risk and uncertainty (e.g. % likelihood of gains or losses). It demonstrates that people think in terms of expected utility relative to a reference point (e.g. current wealth) rather than absolute outcomes. Prospect theory was developed by framing risky choices and indicates that people are loss-averse; since individuals dislike losses more than equivalent gains, they are more willing to take risks to avoid a loss. Due to the biased weighting of probabilities (see

certainty/possibility effects) and loss aversion, the theory leads to the following pattern in relation to risk (Kahneman & Tversky, 1979; Kahneman, 2011):

The theory describes the decision processes in two stages:

During an initial phase termed editing, outcomes of a decision are ordered according to a certain heuristic. In particular, people decide which outcomes they consider equivalent, set a reference point and then consider lesser outcomes as losses and greater ones as gains. The editing phase aims to alleviate any framing effects. It also aims to resolve isolation effects stemming from individuals' propensity to often isolate consecutive probabilities instead of treating them together. The editing process can be viewed as composed of coding, combination, segregation, cancellation, simplification and detection of dominance.

In the subsequent evaluation phase, people behave as if they would compute a value (utility), based on the potential outcomes and their respective probabilities, and then choose the alternative having a higher utility.

The theory helps in understanding the concept of risk and how government employees would make a decision to take risk in the course of their work. The implication of this theory, which is denoted by the evaluation phase, is that a person would be more willing to take risk if they are sure that the benefit of the decision to take risk may outweigh the loss. This means if government ministries provide an environment that supports and encourages entrepreneurial behaviour, more and more employees would be willing to take risk to improve their service delivery.

2.5.2 Schumpeter

Schumpeter (1999): the discovery and opportunity theory of entrepreneurship (equilibrium destruction theory) Schumpeter looks at entrepreneurship as innovation and not imitation. Schumpeter's innovator as an economic and social leader does not care much about economic profits and only joy he gets from being an innovator and being a server to his society. Schumpeter's entrepreneur is an innovator in the entrepreneurship arena. In the Schumpeterian theory, the entrepreneur moves the

economy out of the static equilibrium. Marz (1991), states that "Schumpeter hardly denied that the process of accumulation is the ladder to social power and social prestige; but he thought the very mainspring of the exercise of the entrepreneurial function is the powerful will to assert economic leadership. The joy of carrying through innovations is the primary motive, the acquisition of social power a subsidiary to it. The entrepreneur is not (necessarily) the one who invents new combinations but the one who identifies how these new combinations can be applied in production. This line of reasoning implies that a business owner is considered an entrepreneur only if he is carrying out new combinations." The entrepreneur moves the economic system out of the static equilibrium by creating new products or production methods thereby rendering others obsolete. This is the process of "creative destruction"(creating uncertainty) which Schumpeter saw as the driving force behind economic development (Schumpeter, 1949).

This theory is related to specific objective one of this study concerning employee innovativeness. Employee innovativeness in this study meant employees bypassing the routine ways and cultures of doing work in their specific ministries, and coming up with new and more valuable and acceptable ways of delivering services to the public. Their entrepreneurial resourcefulness will move their ministries out of almost their obsolete state to a more competitive state where they are able to deliver services that are of equal standing to those of other service providers and that are hence acceptable to the public. This is equivalent of Schumpeter's "creative destruction" concept" in the above theory that is responsible for economic development.

2.5.3 Diffusion of Innovation Theory

The Diffusion of Innovation Theory was first discussed historically in 1903 by the French sociologist Gabriel Tarde (Toews, 2003) who plotted the original S-shaped diffusion curve, followed by Ryan and Gross (1943) who introduced the adopter categories that were later used in the current theory popularized by Everett Rogers in 2003. Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system. Diffusion is a special type of communication concerned with the spread of messages that are

perceived as new ideas. An innovation, simply put, is “an idea perceived as new by the individual.” An innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption.

The characteristics of an innovation, as perceived by the members of a social system, determine its rate of adoption. The four main elements in the diffusion of new ideas are:

- (1) The innovation
- (2) Communication channels
- (3) Time
- (4) The social system (context)

1. The innovation

The characteristics which determine an innovation's rate of adoption are:

- (1) Relative advantage
- (2) Compatibility
- (3) Complexity
- (4) Trialability
- (5) Observability to those people within the social system.

Relative advantage

It is the degree to which an innovation is perceived as better than the idea it supersedes. The degree of relative advantage may be measured in economic terms, but social prestige, convenience, and satisfaction are also important factors. It does not matter so much if an innovation has a great deal of objective advantage. What does matter is whether an individual perceives the innovation as advantageous. The

greater the perceived relative advantage of an innovation, the more rapid its rate of adoption will be.

Compatibility

This is the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters. An idea that is incompatible with the values and norms of a social system will not be adopted as rapidly as an innovation that is compatible. The adoption of an incompatible innovation often requires the prior adoption of a new value system, which is a relatively slow process.

Complexity

Complexity explains the degree to which an innovation is perceived as difficult to understand and use. Some innovations are readily understood by most members of a social system; others are more complicated and will be adopted more slowly. New ideas that are simpler to understand are adopted more rapidly than innovations that require the adopter to develop new skills and understandings.

Triability

This is the degree to which an innovation may be experimented with on a limited basis. New ideas that can be tried on the installment plan will generally be adopted more quickly than innovations that are not divisible. An innovation that is triability represents less uncertainty to the individual who is considering it for adoption, who can learn by doing.

Observability

Observability is the degree to which the results of an innovation are visible to others. The easier it is for individuals to see the results of an innovation, the more likely they are to adopt it. Such visibility stimulates peer discussion of a new idea, as friends and neighbors of an adopter often request innovation-evaluation information about it.

2. Communication

Communication is the process by which participants create and share information with one another in order to reach a mutual understanding. A communication channel is the means by which messages get from one individual to another. Mass media channels are more effective in creating knowledge of innovations, whereas interpersonal channels are more effective in forming and changing attitudes toward a new idea, and thus in influencing the decision to adopt or reject a new idea. Most individuals evaluate an innovation, not on the basis of scientific research by experts, but through the subjective evaluations of near-peers who have adopted the innovation.

3. Time

The time dimension is involved in diffusion in three ways:

i. Innovative-decision Process

First, time is involved in the innovation-decision process. The **innovation decision** process is the mental process through which an individual (or other decision making unit) passes from first knowledge of an innovation to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision. An individual seeks information at various stages in the innovation-decision process in order to decrease uncertainty about an innovation's expected consequences. Given that decisions are not authoritative or collective, each member of the social system faces his/her own innovation-decision that follows a 5-step process as stated below:

5-Step Process:

- (1) **Knowledge** person becomes aware of an innovation and has some idea of how it functions.
- (2) **Persuasion** person forms a favorable or unfavorable attitude toward the innovation.
- (3) **Decision** person engages in activities that lead to a choice to adopt or reject the Innovation.
- (4) **Implementation** person puts an innovation into use.
- (5) **Confirmation** person evaluates the results of an innovation-decision already made.

The most striking feature of diffusion theory is that, for most members of a social system, the innovation-decision depends heavily on the innovation-decisions of the other members of the system. This would be of great importance to government ministries in Kenya in helping to enhance an innovation culture in the ministries.

ii) Innovativeness of an individual

The second way in which time is involved in diffusion is in the innovativeness of an individual or other unit of adoption. Innovativeness is the degree to which an individual or other unit of adoption is relatively earlier in adopting new ideas than other members of a social system. There are five adopter categories, or classifications of the members of a social system on the basis on their innovativeness:

- (a) Innovators – 2.5%
- (b) Early adopters – 13.5%
- (c) Early majority – 34%

(d) Late majority – 34%

(e) Laggards – 16%

Innovators

This is the first 2.5 percent of the individuals in a system to adopt an innovation. Venturesomeness is almost an obsession with innovators. This interest in new ideas leads them out of a local circle of peer networks and into more cosmopolite social relationships. Communication patterns and friendships among a clique of innovators are common, even though the geographical distance between the innovators may be considerable. Being an innovator has several prerequisites. Control of substantial financial resources is helpful to absorb the possible loss from an unprofitable innovation. The ability to understand and apply complex technical knowledge is also needed. The innovator must be able to cope with a high degree of uncertainty about an innovation at the time of adoption. While an innovator may not be respected by the other members of a social system, the innovator plays an important role in the diffusion process: That of launching the new idea in the system by importing the innovation from outside of the system's boundaries. Thus, the innovator plays a gate-keeping role in the flow of new ideas into a system.

Early adopters

They are next 13.5 percent of the individuals in a system to adopt an innovation. Early adopters are a more integrated part of the local system than are innovators. Whereas innovators are cosmopolites, early adopters are localities. This adopter category, is more than any other, has the greatest degree of opinion leadership in most systems. Potential adopters look to early adopters for advice and information about the innovation. This adopter category is generally sought by change agents as a local missionary for speeding the diffusion process. Because early adopters are not too far ahead of the average individual in innovativeness, they serve as a role-model for many other members of a social system. The early adopter is respected by his or her peers, and is the embodiment of successful, discrete use of new ideas. The early adopter knows that to continue to earn this esteem of colleagues and to maintain a

central position in the communication networks of the system, he or she must make judicious innovation-decisions. The early adopter decreases uncertainty about a new idea by adopting it, and then conveying a subjective evaluation of the innovation to near-peers through interpersonal networks.

Early majority

It is the next 34 percent of the individuals in a system to adopt an innovation. The early majority adopt new ideas just before the average member of a system. The early majority interacts frequently with their peers, but seldom holds positions of opinion leadership in a system. The early majority's unique position between the very early and the relatively late to adopt makes them an important link in the diffusion process.

They provide interconnectedness in the system's interpersonal networks. The early majority are one of the two most numerous adopter categories, making up one third of the members of a system. The early majority may deliberate for some time before completely adopting a new idea. "Be not the first by which the new is tried, nor the last to lay the old aside," fits the thinking of the early majority. They follow with deliberate willingness in adopting innovations, but seldom lead.

Late majority

Late majority is the next 34 percent of the individuals in a system to adopt an innovation. The late majority adopt new ideas just after the average member of a system. Like the early majority, the late majority make up one-third of the members of a system. Adoption may be the result of increasing network pressures from peers. Innovations are approached with a skeptical and cautious air, and the late majority do not adopt until most others in their system have done so. The weight of system norms must definitely favor an innovation before the late majority is convinced. The pressure of peers is necessary to motivate adoption. Their relatively scarce resources mean that most of the uncertainty about a new idea must be removed before the late majority feel that it is safe to adopt.

Laggards

Are the last 16 percent of the individuals in a system to adopt an innovation. They possess almost no opinion leadership. Laggards are the most localite in their outlook of all adopter categories; many are near isolates in the social networks of their system. The point of reference for the laggard is the past. Decisions are often made in terms of what has been done previously. Laggards tend to be suspicious of innovations and change agents. Resistance to innovations on the part of laggards may be entirely rational from the laggard's viewpoint, as their resources are limited and they must be certain that a new idea will not fail before they can adopt.

iii) Rate of Adoption

The third way in which time is involved in diffusion is in rate of adoption. The rate of adoption is the relative speed with which an innovation is adopted by members of a social system. The rate of adoption is usually measured as the number of members of the system that adopt the innovation in a given time period. As shown previously, an innovation's rate of adoption is influenced by the five perceived attributes of an innovation.

4. The social system

The fourth main element in the diffusion of new ideas is the social system. A social system is defined as a set of interrelated units that are engaged in joint problem-solving to accomplish a common goal. The members or units of a social system may be individuals, informal groups, organizations, and/or sub systems. The social system constitutes a boundary within which an innovation diffuses. How the system's social structure affects diffusion has been studied. A second area of research involved how norms affect diffusion. Norms are the established behavior patterns for the members of a social system. A third area of research has had to do with opinion leadership, the degree to which an individual is able to influence informally other individuals' attitudes or overt behavior in a desired way with relative frequency. A change agent is an individual who attempts to influence clients' innovation-decisions in a direction that is deemed desirable by a change agency.

The Critical Mass

A final crucial concept in understanding the nature of the diffusion process is the critical mass, which occurs at the point at which enough individuals have adopted an innovation that the innovation's further rate of adoption becomes self-sustaining (the shaded area in Figure 1.2 depicts the critical mass). The concept of the critical mass implies that outreach activities should be concentrated on getting the use of the innovation to the point of critical mass. These efforts should be focused on the early adopters, the 13.5 percent of the individuals in the system to adopt an innovation after the innovators have introduced the new idea into the system. Early adopters are often opinion leaders, and serve as role-models for many other members of the social system. Early adopters are instrumental in getting an innovation to the point of critical mass, and hence, in the successful diffusion of an innovation.

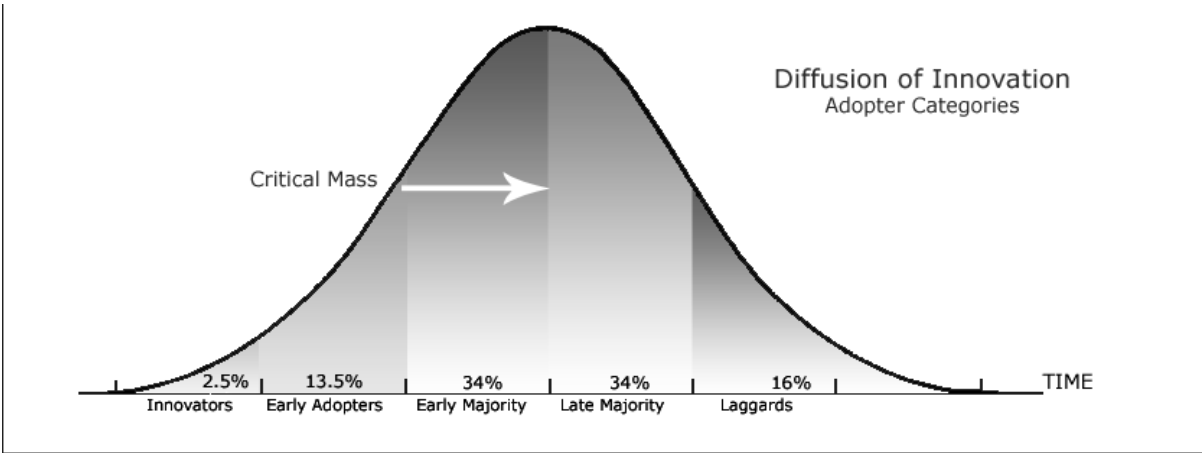


Figure 2.2: Adopter categorization on the basis of innovativeness

Government ministries could use this model as a valuable change model for guiding adoption of employee innovativeness in their work culture. The model will be instrumental in helping government ministries to understand how employee innovativeness can be modified and presented in ways that meet the needs of all employees who adopt innovative behaviour. The model will enhance the government ministries' understanding of the various elements of new ideas diffusion

and thereby give the various elements that support them, and resources that they may require to effectively contribute to the whole process of new idea diffusion the attention and seriousness they deserve.

This theory is about how innovation diffuses through a social system to become a culture and thereby a way of doing things. It relates to both the independent variables and dependent variable of this study in the sense that employee innovativeness, employee proactiveness and employee risk-taking emphasize the need of these entrepreneurial behaviours being inculcated in employees with a view to have them being adopted as a way of work behaviour and thereby consistently deliver quality to the public. The moderating variable relates to this theory in the sense that it shows how a well defined good work environment can enhance quality delivery.

2.5.4 Theory of Planned Behaviour/Reasoned Action

Ajzen and Fishbein formulated in 1980 the theory of reasoned action (TRA). This resulted from attitude research from the Expectancy Value Models. Ajzen and Fishbein formulated the TRA after trying to estimate the discrepancy between attitude and behavior. This TRA was related to voluntary behavior. Later on behavior appeared not to be 100% voluntary and under control, this resulted in the addition of perceived behavioral control. With this addition the theory was called the theory of planned behavior (TPB). The theory of planned behavior is a theory which predicts deliberate behavior, because behavior can be deliberative and planned.

Theory of Reasoned Action suggests that a person's behavior is determined by his/her intention to perform the behavior and that this intention is, in turn, is a function of his/her attitude toward the behavior and his/her subjective norm. The best predictor of behavior is intention. Intention is the cognitive representation of a person's readiness to perform a given behavior, and it is considered to be the immediate antecedent of behavior. This intention is determined by three things: their attitude toward the specific behavior, their subjective norms and their perceived behavioral control. The theory of planned behavior holds that only specific attitudes toward the behavior in question can be expected to predict that behavior. In addition to measuring attitudes toward the behavior, we also need to measure people's

subjective norms – their beliefs about how people they care about will view the behavior in question. To predict someone’s intentions, knowing these beliefs can be as important as knowing the person’s attitudes. Finally, perceived behavioral control influences intentions. Perceived behavioral control refers to people's perceptions of their ability to perform a given behavior. These predictors lead to intention. A general rule, the more favorable the attitude and the subjective norm, and the greater the perceived control the stronger should the person’s intention to perform the behavior in question.

The assumption behind this theory is that, when people have time to plan how they are going to behave, the best predictor of that behaviour is one’s intention. In other words, to predict what people are going to do, you need to know what they intend to do. The aim of this study was to establish whether employees’ entrepreneurial behaviour influences the way the public perceives service quality by government ministries in Kenya. This theory, therefore, is valuable in assisting government ministries to predict the public’s behaviour towards services offered by them and hence meet them halfway by tailoring the services to the public’s predicted preferences. This will enable government ministries to satisfy the public’s needs, capture its loyalty and retain it, thus giving government ministries a competitive edge which it so requires in the current highly competitive business environment and winning the confidence of the public which they serve.

This theory will also be instrumental in helping government ministries to appreciate that they can actually purpose to behave entrepreneurially by creating a culture that enhances entrepreneurial behaviour and thereby succeed at offering innovative, satisfying services to the public of Kenya which they are so intended to serve. This theory is related to all the independent variables; employee innovativeness, employee proactiveness and employee risk-taking as these are behaviours which an employee can purpose to adopt through learning and practice.

2.5.5 Service quality Model

Among the models for measuring service quality, the most acknowledged and applied model in diversity of industries is the SERVQUAL (service quality) model

developed by Parasuraman et al. The SERVQUAL model of Parasuraman *et al.* (1988) proposed a five dimensional construct of perceived service; quality tangibles, reliability, responsiveness, assurance and empathy as the instruments for measuring service quality (Parasuraman *et al.*, 1988; Zeithaml *et al.*, 1990).

i. Tangibility

Parasuraman *et al.* (1985) defined tangibility as the appearance of physical facilities, equipment, personnel, and written materials. Ananth *et al.* (2011) referred to tangibility in their study of private sector banks as modern looking equipment, physical facility, employees are well dressed and materials are visually appealing.

ii. Reliability

Reliability depends on handling customers' services problems; performing services right the first time; provide services at the promised time and maintaining error-free record. Furthermore, they stated reliability as the most important factor in conventional service (Parasuraman *et al.*, 1988). Reliability also consists of accurate order fulfillment; accurate record; accurate quote; accurate in billing; accurate calculation of commissions; keep services promise. He also mentioned that reliability is the most important factor in banking services (Yang *et al.*, 2004).

iii. Responsiveness

Responsiveness defined as the willingness or readiness of employees to provide service. It involves timeliness of services (Parasuraman *et al.*, 1985). It is also involves understanding needs and wants of the customers, convenient operating hours, individual attention given by the staff, attention to problems and customers' safety in their transaction (Kumar *et al.*, 2009).

iv. Assurance

Parasuraman *et al.* (1985) defined assurance as knowledge and courtesy of employees and their ability to inspire trust and confidence. According to Sadek *et al.* (2010), in government ministries assurance means the polite and friendly staff, provision of required public service, interior comfort, eases of access to required information and knowledgeable and experienced senior public servants.

v. Empathy

Parasuraman *et al.* (1985) defined empathy as the caring and individual attention the firm provides its customers. It involves giving customers individual attention and employees who understand the needs of their customers and convenience business hours. Ananth *et al.* (2011) referred to empathy in their study on private sector banks as giving individual attention; convenient operating hours; giving personal attention; best interest in heart and understand customers' specific needs.

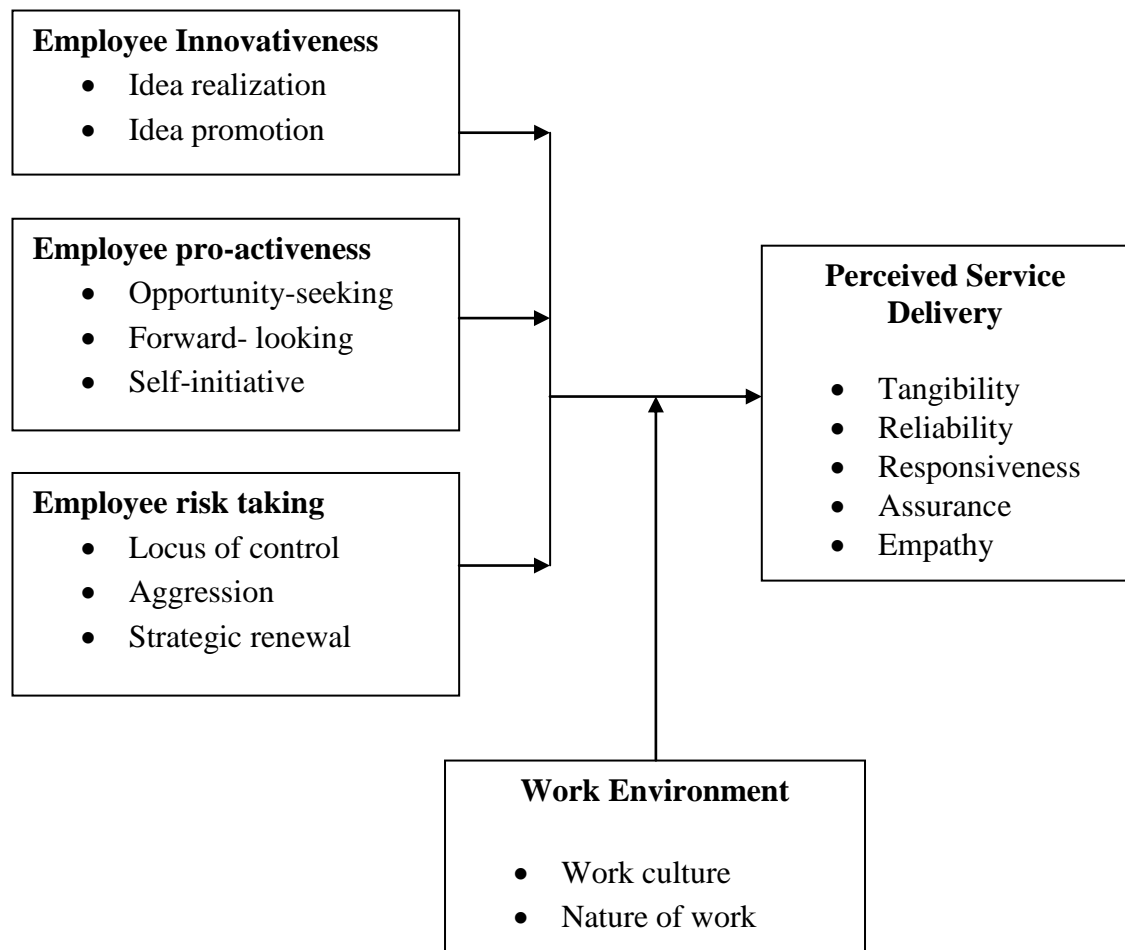
This model will assist government ministries in understanding the central role of service quality in the modern government ministries. The model will enable these ministries to identify the various dimensions of quality and also get insights into how to measure these dimensions. This model will help ministries to appreciate that providing services with good quality will enable them to achieve a competitive advantage continually, thereby increasing the public's loyalty. Ministries will understand that as far as their survival and profitability depends on the public's satisfaction increase, service quality must continually be evaluated from their point of view. The model relates to all the four variables; employee innovativeness, employee proactiveness, employee risk-taking and perceived service quality because perception of services quality is a component of each of them.

2.6 Conceptual Framework

The study suggested that perceived service delivery was a function of entrepreneurial behaviour. Entrepreneurial behaviour was the independent variable of the study while perceived service delivery was the dependent variable. The conceptual

framework in Figure 2.1 showed that perceived service quality was directly affected by entrepreneurial behaviour. This section presents the argument behind the conceptual framework and the already formulated hypotheses.

ENTREPRENUARAL BEHAVIOUR



Independent Variables

Moderating Variable

Dependent Variable

Figure 2.2: Conceptual Framework

2.7 Review of Literature on Variables

This section presented a review of the dependent variable and the independent variables that were measured in this study. Perceived Service Quality was the

dependent variable, while the independent variables were creativity and innovation, pro-activeness, and risk-taking which constitute entrepreneurial behaviour.

2.7.1 Entrepreneurial Behaviour

Bird and Schjpoedt (2009) define entrepreneurial behaviour as the study of human behaviour involved in identifying and exploiting opportunities through creating and developing new ventures. Gartner, Carter and Reynolds (2010) feel that entrepreneurial behaviour involves exploring and creating opportunities while in the process of emerging organizations. Kuratko, Ireland, Covin, and Hornsby (2005) argue that entrepreneurial behaviour is also increasingly recognized as a proponent to social change and that it facilitates innovation within established organizations. The purpose of studying entrepreneurial behavior has been; to explain, predict, shape and change behavior; to understand the relationship between individual and team/venture levels; and to understand how entrepreneurial behavior can be learned and what influences its development, adaption and adoption.

Shane et al. (2003) suggests that psychological factors influence the likelihood that people will exploit new venture opportunities. These personal entrepreneurial traits include: Creativity and innovativeness, pro-activeness, and risk-taking. Innovativeness refers to the willingness to support creativity and experimentation. Risk taking means a tendency to take bold actions, such as venturing into unknown new markets. Proactiveness is an opportunity-seeking and forward-looking perspective ((Lumpkin & Dess, 2001). High presence of these traits in a government ministry indicates that it is entrepreneurial. A low presence of the same indicates the opposite. A brief discussion of each of these traits follows:

2.7.2 Employee Innovativeness

Innovation at work is the process, outcomes, and products of attempts to develop and introduce new and improved ways of doing things. It entails implementing ideas toward better procedures, practices, or products. Innovation can occur at the level of the individual, work team, organization, or at more than one of these levels combined. In defining innovative work behavior, De Jong and Hartog (2010) state

that recent studies have examined innovative work behavior from four interrelated sets of behavioral activities namely (1) problem recognition, (2) idea generation, (3) idea promotion, (4) idea realization, which could enhance the employees' ability to innovate. They explain that the first two activities comprising of problem recognition and idea generation phase, represent the creativity orientated work behavior phase. The last two activities are referred to as implementation-orientated work behavior wherein individuals try to promote a novel idea of potential colleagues and managers and to realize actual ideas that are ultimately applied within the work role, group or total organization. Parker, Williams and Turner (2006) feel that individuals who are willing and able to innovate, extend their contribution beyond the scope of their job requirements and at the same time, realize a continuous flow of innovations.

Innovation in the workplace has become an increasingly important determinant of organizational performance, success, and longer-term survival. Anderson, De Dreu and Nijstad (2004) argue that as organizations strive to optimize the ideas and suggestions of their employees, it is clear that the process of idea generation and implementation has become a source of distinct competitive advantage. Innovation has generally been argued to be both the production of creative ideas and their implementation (Shalley & Zhou, 2008).

Creativity is often seen as the first step of innovation since it centers on idea generation. Innovation on the other hand, emphasizes idea implementation hence creativity is often seen as the first step of innovation (West, 2002). As far as innovation is concerned, new ideas and practices implemented in an organization may be generated by employees in the focal organization (Janssen, 2000). As long as an employee intentionally introduces and applies a new idea, method, or practice, he or she is said to engage in innovation (Anderson *et al.*, 2004). When examining innovation or idea implementation at the individual level-of-analysis, researchers have also used the term innovative behavior (Yuan & Woodman, 2010). Evidence of innovativeness may take several forms. It may occur along a continuum for simple willingness to adopt the existing product to a passionate commitment, to masters of

the latest in technologies (Wiklund & Slepherds 2003). Windrum (2008) suggested taxonomy of public sector innovation comprising:

- i. Service innovation (the introduction of a new service or an improvement to the quality of an existing service);
- ii. Service delivery innovation (new or altered ways of supplying public services);
- iii. Administrative and organizational innovation (changes in organisational structures and routines);
- iv. Conceptual innovation (the development of new views and challenge existing assumptions);
- v. Policy innovation (changes to thinking or behavioral intentions)
- vi. Systemic innovation (new or improved ways of interacting with other organizations and sources of knowledge).

2.7.3 Employee Proactiveness

In corporate entrepreneurship, proactiveness is an opportunity-seeking, forward-looking perspective characterized by high awareness of external trends and events and acting in anticipation thereof (Rauch *et al.*, 2009). Parker *et al.* (2006) define proactive behaviour as self-initiated and future-oriented action that aims to change and improve the situation or oneself' and typically includes a range of behavioral constructs. Parker and Collins (2010) classify three kinds of proactive behaviour, each of which captures multiple constructs and dependent on individuals' aspirations. First, proactive work behaviour aims to improve the internal organizational environment, such as by improving work methods. It includes behaviours like taking charge, voicing innovative suggestions for change and recommending modifications to standard procedures even when others disagree and also individual implementation of ideas.

Second, proactive strategic behaviour aims for a better fit between the organization and its environment. It includes strategic scanning involving identifying organizational threats and opportunities and influencing strategy formation by making others' aware of particular events or trends to take control of, and causing change in, the broader organization's strategy. Third, proactive person/environment fit behavior focuses on improving the fit between a person and his/her organizational environment. It includes proactively seeking feedback, job role negotiation and career self-initiative.

2.7.4 Employee Risk-taking Propensity

Risk-taking is considered a fundamental element of entrepreneurship (Wennekers *et al.*, 2007). Rauch *et al.* (2009) argues that risk-taking involves taking bold actions by venturing into the unknown, if in the case of an organization; it entails borrowing heavily, and/or committing significant resources to ventures in unknown environments. Entrepreneurial activities like innovation, venturing, and strategic renewal entail considerable risk, because time, effort, and resources must be invested before the distribution of their returns is known. Entrepreneurs engage in situations marked by a risk of potential losses and they would even act without their higher management's permission. It involves deviating from what is the norm. In related organizational behaviour literature, proactive behaviours have also been considered risky as they change the individual's environment by challenging the status quo or by selling controversial issues (Parker & Collins, 2010). It is often argued that entrepreneurs prefer moderate rather than high risks, and try to manage and reduce risks as much as possible.

2.7.5 Work Environment Factors

Employees conceive the climate of the organization as a source of specific cues about how to behave. For instance, empirical studies have reflected that those employees perceiving a climate characterized by high fairness among employees will tend to behave in a fair manner (Ehrhart, 2004). In a similar vein, innovation and creativity scholars have linked some facets of the organizational climate to innovative behaviors and innovation performance. For instance, (Gilson & Shalley,

2004) discovered that those team members that were more engaged in creative processes reported that their team climate was more supportive of creativity. Similarly, (King, De Chermont, West, Dawson, & Hebl, 2007) found that a climate for innovation was positively linked to organizational performance.

A particular facet of the organizational climate that is likely to influence employees' innovative performance is the perceived risk-taking climate. Managers with a high propensity towards risk-taking may enable the emergence of a risk-taking climate among employees, which can encourage them to contribute to the organizations' innovation performance.

In an effort to determine the moderating effect of work environment factors, the researcher regressed the aggregate mean scores of perceived service quality delivery against the aggregate mean score of entrepreneurial behavior without involving the work environment in order to get the zero order partial correlation. The same process was repeated but introduced the work environment factors as the controlling variables in order to get the first order partial correlation.

2.7.5.1 Work Culture

According to the Webster's dictionary, culture is the ideas, customs, skills, arts, etc. of a given people in a given period. Astute managers have realized that any organization also has its own corporate culture. Moreover, social anthropologists are now as fascinated by corporate cultures as they once were by headhunting tribes in Borneo. This indicates the important role of corporate culture. Many researchers have found a positive relationship between the corporate culture and performance. Stewart (2007) mentioned that profitability is any organizational goal. One of the best places to start improvements is with an examination of the organization's work culture. He states that the strongest component of the work culture is the beliefs and attitudes of the employees. It is the people who make up the culture, he stated.

Stewart (2007) also stated that an organization's cultural norms strongly affect all who are involved in the organization. Those norms are almost invisible, but if we would like to improve performance and profitability, norms are one of the first places

to look. Knowing these attitudes and norms will make it possible to understand the corporate culture and its relationship to organizational performance. He further explains that the successful manager cannot leave the development of a high-performance work culture to chance if the business is not to risk its very future. Although many studies have found that different companies in different countries tend to emphasize on different objectives, the literature suggests financial profitability and growth to be the most common measures of organizational performance.

2.7.5.2 Nature of work

Work has been done to understand the relationship between work environment and job satisfaction all around the world in different contexts over the years. The study is gaining more and more importance with the passage of time because of its nature and impact on society. The findings of a Danish study suggest that a firm can increase its productivity through the improvement of physical dimensions of work environment (internal climate) and may have a positive impact on firms' productivity (Buhai, Cottini, & Nielsen, 2008).

Herzberg *et al.* (1959) developed motivational model for job satisfaction and through research he found that the job related factors can be divided into two categories, Hygiene factors and motivation factors. Hygiene factors can not cause satisfaction but they can change dissatisfaction into no dissatisfaction or short term motivation, whereas motivational factors have long lasting effect as they raise positive feelings towards job and convert no dissatisfaction into satisfaction. In the absence of hygiene factors (these are working conditions, supervision quality and level, the company policy and administration, interpersonal relations, job security, and salary) the employees chances of getting dissatisfied increase .

Baah and Amoako (2011) described that the motivational factors (the nature of work, the sense of achievement from their work, the recognition, the responsibility that is granted to them, and opportunities for personal growth and advancement) help employees to find their worth with respect to value given to them by organization. Further, this can increase motivational level of employees which will ultimately raise

internal happiness of employees and that the internal happiness will cause satisfaction. Hygiene factor can only cause external happiness but they are not powerful enough to convert dissatisfaction into satisfaction but still their presence is too important. According to Herzberg Two Factor Theory, both Hygiene and Motivation factors are linked with each other, as Hygiene factors move employee from Job dissatisfaction to No Job dissatisfaction, whereas motivation factors moves employees from no job dissatisfaction to job satisfaction (Herzberg *et al.*, 1959).

2.7.6 Perceived Service Quality

Customer perceived service quality, is the customer's own perception of the service based on different factors contributing to the service, from the process to the final outcome. According to Grönroos (2001), "quality is what customers perceive". Customers buying service consider everything that contributes to the process and the final outcome in making their assessments of the service. However the subjective assessment of the actual service experiences is the customer perceived service quality as pointed out by Looy *et al.* (2003), Zeithaml *et al.* (2006), and Grönroos (2001). Sureshchander *et al.* (2002), points out that service firms have a difficulty envisioning and understanding what aspects of the service that define high quality to the consumers and at what levels, they are needed to be delivered. Also, that the aspect of managing a service interaction also requires understanding the complicated behavior of employees that find its way into the customers perception of the service quality. On a careful inspection of the dimensions of quality, a major focus rests on the component of human interaction in the service delivery that consists of human behavior and attitudes. Looy *et al.* (2003) is also of the same opinion that customers are not one-dimensional in judgment, because a lot of other factors influence service quality, most researchers agree on these dimensions of service quality as a measure of service quality:

- i. **Tangibles:** the appearance of physical facilities, the personal. The tools or equipment used to provide the service and communication material. In other words every material that is used to give tangibility to service.

- ii. **Reliability:** this is the consistency of the service performance, which breeds dependability, from the first time the service is correctly performed to the ability of the firm to keep its promises. According to Zeithaml *et al* (2006), it is the ability to perform the promised service dependably and accurately.
- iii. **Responsiveness:** this is the willingness on the part of the service supplier (employee) to assist the customer and provide prompt service.
- iv. **Assurance:** the knowledge-ability and courtesy of employees towards the customers, their ability to inspire trust and confidence in handling the customers.
- v. **Empathy:** This is a quality of the employee to care for the customer and give them individualized attention. The ability to put him/herself in the customer's shoes by seeing things through the customer's eyes. According to Zeithaml *et al.* (2006), "it means treating customers as individuals, giving them customized service".

Various studies in service management have shown that the perception of the quality of services through the eyes of the customer is formed by a judgment of many encounters, with an organization. According to Zeithaml *et al.* (2006), "customers perceive services in terms of quality of the service and how satisfied they are overall with their experiences." However, these encounters are mainly the joint effort of the employees who have contacts with the customers, and the customers themselves, who therefore may be in better position to understand them, and solve their service related problems.

2.8 Empirical Literature

The aim of the study was to use the knowledge gained from literature to empirically investigate the circumstances in government ministries in Kenya, as typical organizations in Kenya. The study was carried out with regard to influence of entrepreneurial behaviour on perceived service quality by government ministries in Kenya. Lukes (2012) carried out a study in the Czech Republic on Supporting

Entrepreneurial Behaviour and Innovation in Organizations, in which he argues that there is a big need today for effective support of entrepreneurial behavior and innovation; but the task is not easy. Barriers and dilemmas complicate the innovation process. Company management can, however, start to change organizational culture in the direction of innovation and set up systems that encourage employees to behave in more entrepreneurial manner. Lukes (2012) provides the following recommendations among others to foster entrepreneurial activity in organizations:

- i. Clear, simple and comprehensive processes are set so that employees know how to proceed with a new idea – many continuous improvement systems are complicated, because they are ready for radical innovations. However, it can limit suggesting good, but smaller improvement ideas.
- ii. Ideas evaluation is quick and effective – ideas are mostly evaluated on lower levels.
- iii. Feedback is fast, constructive and informative – employees know that somebody dealt with their ideas and their learning is supported.
- iv. There are specific entrepreneurial criteria used for staff selection as well as for development and training. Schmelter *et al.* (2010) study provided empirical evidence for the strong impact of these criteria application on corporate entrepreneurship.
- iv. Performance appraisal is focused rather on long-term goals, combine individual and team results and tolerating possible mistakes. For manager, the innovative activity of their team is an explicit goal and is part of their performance appraisal.
- v. The system of continuous improvement is measured, evaluated and improved. People are valued for good ideas by public recognition and quick idea implementation.

Lukes' study discusses the important factors influencing the success of entrepreneurial behavior and makes recommendations for fostering entrepreneurial behavior in organizations. It concentrates on the role of entrepreneurial behavior in enhancing corporate entrepreneurship but does not make any mention of service quality as an outcome of entrepreneurial behavior. This study seeks to establish the influence of employee entrepreneurial behavior on service quality delivery.

In the results of their study, *Strategizing for firm excellence in Innovation: An exploratory study of Entrepreneurial Tendencies and Behaviors in SMEs in Uganda*, conducted in Uganda by Sudi, Basalirwa, Mayoka, and Kusemererwa (2013), indicated that SMEs that had successfully survived for over a year in Uganda employed individuals who possessed business features associated with the tendency to engage in entrepreneurial activities like preference for doing own work which gives them independence to try out new things. Generally, the study support the ideas of Ritsila and Tervo (2002) that demographic factors like education have implications on the firm's ability to innovate through shaping the tendencies and behaviors of entrepreneurs. It does not however associate these tendencies and behaviours with service quality delivery by employees in these SMEs this is the gap that this study seeks to fill.

Mokaya (2013) in his study, *The effect of corporate entrepreneurship on the performance of the edible oil manufacturing firms in Kenya*, found that there was a strong and positive relationship between corporate entrepreneurship strategies and organizational performance with a correlation coefficient of 0.661. Mokaya concluded that the results of his study implied that corporate entrepreneurship strategies had a significant and positive effect on organizational performance of edible oil companies in Kenya thus hypothesis was rejected. Mokaya's study attributes general organizational performance to corporate entrepreneurship but does not specifically attribute service quality as an outcome of a specific corporate entrepreneurial behavior. Cooney (2012), in a study conducted at Dublin Institute of Technology, Copenhagen, Ireland, *Entrepreneurship Skills for Growth-Orientated Businesses*, it was established that; There was need for policies to stop 'picking winners' and instead create a strong ecosystem, that coaching and mentoring is a

critical part of growth-orientated programmes, access to capital combined with appropriate coaching offers the strongest opportunities for business growth and that peer learning and social capital development must be incorporated into training programmes for entrepreneurs. While Cooney's study emphasizes skill acquisition for entrepreneurs through growth-oriented programmes, this study will try to establish whether there is a relationship between entrepreneurial skills of employees and their service quality delivery.

Morris (2012) in a study, *Enhancing Organizational Creativity*, in California, USA, in an attempt to establish common patterns and themes regarding the factors that enhance organizational creativity found that it is the sum of the whole rather than the individual parts that enhances creativity in organizations. Each dimension on its own cannot support creativity. Organizations are complex social, political and technical systems and no simplistic formula for becoming more creative can be applied. He noted that there appears, however, a general consensus among researchers in this field that: creativity is impeded by cultures that emphasize formal rules, respect for traditional ways of doing things, and clearly demarcated roles - creativity is encouraged by climates which are playful about ideas, supportive of risk taking, challenging and tolerant of ambiguity, and democratic, participative leadership styles facilitate creativity while authoritarian styles inhibit it.

Creativity is enhanced by organizational structures and systems that are adaptable and flexible. *Enhancing Organizational Creativity* is linked to a risky balance of complexity, compromise and choice. The creative organization needs to be flexible while controlling risk, but at the same time provide the freedom to search for the 'new' through learning and experimentation. There is a systems view of creativity which suggests that creative outcomes are produced in a creative environment, where creativity as a culture is encouraged and rewarded. In this context, creativity is not confined to a few individuals, but all employees are encouraged to be creative for the benefit of the whole. In organizations, creativity is facilitated when individuals are given maximum discretion in how they organize their work, when self-efficacy is strong, and when information is of high quality. Morris' concern is how a culture that embraces creativity can be enhanced in organizations. The study concentrates on

how creativity can be enhanced but does not attribute employee service delivery to their creativity. This study will try to establish whether there is a relationship between entrepreneurial behaviour and perceived service quality delivery.

Kisingu (2014), in a study, investigating the strategic determinants of entrepreneurship of education institutions in Kenya, with specific focus to private secondary schools in Mombasa county, concluded that, in a dynamic and competitive business environment, the organization as well as the country is forced to foster entrepreneurial behaviour in order to grow and sustain its competitiveness. His study suggests that the strategic determinants of entrepreneurship of education institutions in Kenya include management support, work discretion, rewards, time availability and organizational boundaries. Kisingu (2014) attributes organization competitiveness to entrepreneurial behaviour while this study seeks to establish whether there is a relationship between entrepreneurial behaviour and service quality delivery.

Sibanda, Mle, Ijeoma, Nzewi, and Mofolo (2012) concluded the following from their study, Africa's Public Service Delivery and Performance Review conducted in South Africa. The customer-focused service delivery monitoring approach is conceptually new in the public sector as it tends to treat the citizenry as customers. However, the most critical objectives of this approach are the improvement of public sector service delivery through, among other things, consulting users of services, setting service standards, increasing access to all facilities, ensuring courtesy when dealing with citizens, providing more useful information, increasing openness and transparency, rectifying mistakes and failures, providing the best possible value for money, enhancing accountability, encouraging innovation, rewarding excellence and forming wider partnerships with the community. Quality service delivery and monitoring standards are therefore critical components of an effective and responsive local government. A choice often has to be made based on often contradictory values embodied in customer-focused quality service delivery: a difficult choice between affordability and the needs of the community. By and large, the primacy of the customer dictates that local government authorities provide services that are responsive to the customer, the citizen or service user.

A customer-focused approach, Sibanda *et al.* (2012) argue, can positively impact on public officials as it makes them more accountable for their actions and inactions. Emerging from their article is that ‘entrepreneurial’ and modernized local government encompassing service delivery monitoring tools can be useful among others, for achieving the developmental goals at local government service delivery level as well as promoting quality service delivery. They argue that for local government to be more effective, accountability, transparency and responsiveness as well as commitment and trust from local government role players are necessary. Monitoring performance targets, standards and outcomes could go a long way in enhancing the rendering of customer-focused quality service delivery in local government. Sibanda *et al.* (2012) perceive service quality delivery as an outcome of an improved customer-focused approach and not an outcome of particularly entrepreneurial behaviour. Their study was also conducted under the South African context while this study will be conducted in Kenya with a view to trying to establish the relationship between specifically entrepreneurial behaviour and service quality delivery.

2.9 Critique of the existing literature relevant to the study

On trying to establish whether employee’s incompetence affected service quality in the public health sector, Wanjau, Muiruri and Ayodo (2012) did a study on Factors Affecting Provision of Service Quality in the Public Health Sector: A Case of Kenyatta National Hospital, and recorded that the majority, (92%) of the respondents were in agreement while a few (8%) of the respondents were of contrary opinion majority. On the extent to which employee’s capacity influenced the provision of service quality in the public health sector, the majority (53%) of the respondents indicated that employee’s capacity influenced the provision of service quality in the public health sector. To a very great extent, (31%) of the respondents indicated that the influence was to a great extent while 16% of the respondents indicated that employee’s capacity influenced the provision of service quality in the public health sector to a moderate extent. They concluded that organization must enhance employee’s capacity in order to improve provision of service quality. However, the study did not consider other factors like the level of technology used in the healthy

sector which might have a great influence on the provision of service quality in the health sector.

Auka, Bosire, and Matern (2013) in the findings of their study, *Perceived Service Quality and Customer Loyalty in Retail Banking in Kenya*, argue that fulfilling customers' requirements is the key to a competitive advantage and long term success in a highly competitive environment. Their study established that service quality is one of the critical success factors that influence the competitiveness of an organization. The findings of the study showed that service quality dimensions can be used to attract and maintain customers. To survive in a competitive industry, organizations have to develop new strategies which will satisfy their customers. According to Gekonde, Nyamboga and Nyarohoo (2014), effective and efficient public service delivery remains paramount role to any government of the day and various institutions all over the world. It is envisaged that public service delivery on the context of efficiency, effectiveness, completeness, inclusiveness and accountability will pave way to good governance which eventually culminates to participatory, consensus oriented, transparency, responsiveness, equitable and inclusiveness towards the management of people and their resources at all levels as pointed out by the World Bank (1993) and the UNDP policy paper No. 3 (1997). To offer public services effectively and efficiently and within the parameters acceptable to all, various institutions and those in power all over the world have laid suitable and workable strategies of human resource and organizational capacity building while focusing on performance improvement on the same. The study did not consider the other factors such as the organizational culture and management structure which could have had a moderating effect on the relationship between the perceived service quality and customer loyalty in retail banking in Kenya. This study will concentrate on establishing whether there is a relationship between entrepreneurial behaviour and service quality delivery and has work culture as one of the moderating factors.

The empirical review has shown that there are a number of studies that have been done on the effect of entrepreneurial behaviour on performance in a number of countries including Kenya. Most of these studies have been done on the effect of entrepreneurial behaviour on performance. Other studies have been done on the

effect of employee's incompetence on service quality. Little has been done on the effect of entrepreneurial behaviour on quality service delivery.

2.10 Research Gap

The empirical review showed that there are a number of studies that had been done on the effect of entrepreneurial behaviour on performance in a number of countries including Kenya. Most of these studies had been done on the effect of entrepreneurial behaviour on performance. Other studies had been done on the effect of employee's incompetence on service quality. Little had been done on the effect of entrepreneurial behaviour on quality service delivery which was the focus of this study.

Lukes (2012) in his study in the Czech Republic on Supporting Entrepreneurial Behaviour and Innovation in Organizations, discusses the important factors influencing the success of entrepreneurial behavior, concentrating on the role of entrepreneurial in enhancing corporate entrepreneurship but does not make any mention of service quality as an outcome of entrepreneurial behavior.

The results of the study, Strategizing for firm excellence in Innovation: An exploratory study of Entrepreneurial Tendencies and Behaviors in SMEs in Uganda, conducted in 2013 in Uganda, by Sudi, Basalirwa, Mayoka, and Kusemererwa, indicated that SMEs that had successfully survived for over a year in Uganda employed individuals who possessed business features associated with the tendency to engage in entrepreneurial activities like preference for doing own work which gives them independence to try out new things. The study however, does not associate these tendencies and behaviours with service quality by employees in these SMEs.

Mokaya in his study in 2013, the effect of corporate entrepreneurship on the performance of the edible oil manufacturing firms in Kenya, found that there was a strong and positive relationship between corporate entrepreneurship strategies and organizational performance with a correlation coefficient of 0.661. This study attributes general organizational performance to corporate entrepreneurship but does

not specifically attribute service quality as an outcome of a specific corporate entrepreneurial behavior.

Cooney (2012), in a study conducted at Dublin Institute of Technology, Copenhagen, Ireland, *Entrepreneurship Skills for Growth-Orientated Businesses*, established that; There was need for policies to stop ‘picking winners’ and instead create a strong ecosystem, that coaching and mentoring is a critical part of growth-orientated programmes. While this study emphasizes skill acquisition for entrepreneurs through growth-oriented programmes, it does not mention whether there will be a relationship between the skills acquired from these programmes and employees’ service quality.

In a study conducted in 2012 in California, USA, *Enhancing Organizational Creativity* by Morris, in an attempt to establish common patterns and themes regarding the factors that enhance organizational creativity, he found that creativity is encouraged by climates which are playful about ideas, supportive of risk taking, challenging and tolerant of ambiguity, and that democratic, participative leadership styles facilitate creativity while authoritarian styles inhibit it. The study concentrates on how creativity can be enhanced but does not attribute employee service quality to their creativity.

Kisingu (2014), in a study, investigating the strategic determinants of entrepreneurship of education institutions in Kenya, with specific focus to private secondary schools in Mombasa county, concluded that, in a dynamic and competitive business environment, the organization as well as the country is forced to foster entrepreneurial behaviour in order to grow and sustain its competitiveness. Kisingu (2014) attributes organization competitiveness to entrepreneurial behaviour but does not indicate whether there is a relationship between entrepreneurial behaviour and the level of service quality delivered by employees in this education institutions.

Sibanda, Mle, Ijeoma, Nzewi, and Mofolo (2012) in their study, *Africa’s Public Service Delivery and Performance Review* conducted in South Africa, concluded that customer-focused service delivery monitoring approach is conceptually new in the public sector as it tends to treat the citizenry as customers. Sibanda *et al.* (2012)

Perceive service quality delivery as an outcome of an improved customer-focused approach and not an outcome of particularly entrepreneurial behaviour. Their study was also conducted under the South African context.

None of the above studies has sought to establish the relationship between employee entrepreneurial behaviour and the quality of the service they deliver. This therefore offers a gap that this study seeks to bridge.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter dealt with design of the study, study population, data collection procedures and the measurement scales operationalizing the study variables as well as the pilot test. Data processing and analysis and a framework as to how the study hypotheses would be tested were also presented in this chapter. The chapter ended with a summary table of indicators used to measure the key study variables and the data analytical models.

3.2 Research design

The study used a mixed research design that adopted a cross-sectional design with correlational approach of analysis as it sought to evaluate the relationships among the study variables namely employees' entrepreneurial behavior, quality service delivery and moderating factors. According to Kothari (2010) a research design is the arrangement of conditions for collection, measurement and analysis of data that aims to combine relevance to the research purpose. Cross sectional design was appropriate for this study because it cut across all the government ministries in Kenya. Cross-sectional studies have been found by Raman and Kumar (2008) to be robust for effects of relationship studies. This study was a cross-sectional research since the research respondents were interviewed only once and it was more of a snap shot or one-shot study.

This study adopted both qualitative and quantitative methods. (Ramchander, 2004) notes that the advantage of using both qualitative and quantitative approaches is that they complemented each other and there is also a possibility of getting more valid results through an address of the inefficiencies of either design. Qualitative research involves the examination, analysis and interpretation of observations for the purpose of discovering underlying meanings and patterns of influence. It includes the classifications of types of data in a manner that does not involve mathematical models.

Quantitative research on the other hand involves the examination, analysis and interpretation of data obtained from the participants expressed in numerical form. It is the techniques that is used to gather quantitative data mainly those dealing with numbers or anything that is measurable. Barker *et al.* (2002) argues that quantitative designs facilitate greater precision in measurement and also avail a good basis for generalizing results over and above the study sample. The quantitative design similarly enhances comparisons because the researchers are able to obtain feedback from a big number of people for comparisons.

3.3 Target Population

According to Pole and Lampard (2002), a target population is classified as all the members of a given group to which the investigation is related, whereas the accessible population is looked at in terms of those elements in the target population within the reach of the study. This was a census study since all the eighteen government ministries in Kenya were studied. According to Marino (2003); in circumstances where the sample is whole, the result of a given study will be a census. According to Kenya Gazette (2013) there are 18 ministries in Kenya and every ministry has four executive officers. The four executive officers of every ministry were selected to take part in the study as key informants because they are perceived to be knowledgeable on the issues under study and for which they are either responsible for their execution or they personally execute them.

Table 3.1: Population of Study

Category	Population
Number of Government Ministries	18
Number of Executive Officers per Ministry	4
TOTAL	72

3.3.1 Sampling techniques

A census approach was adopted in this study which considered taking the entire population into the study. A census is a cost-effective approach according to Israel, 2012 who stated that on considerations of cost census technique is impossible for large populations, but is advisable for small populations, for instance 200 or less. The study therefore considered all the 18 ministries each with 4 executive officers which resulted into a total of 72 respondents considered in the study.

3.4 Data Collection Instruments

The data collection instruments in this study were a questionnaire and interview guide. The researcher collected both primary and secondary data for this study. Primary data was collected through the use of key informant method using a self-administered semi-structured questionnaire (Appendix I) and interview guide, which was conducted by the researcher herself (Appendix II). The researcher interviewed executive officers (administration) to further investigate their responses (McNamara, 1999). 12 Interview questions were used to gather data on work culture, nature of work, employee innovativeness, employee pro-activeness, employee risk-taking and service quality. Interviews in this study were to allow for significant probing vis-à-vis a two-way communication that would provide in-depth descriptions of areas discussed. The researcher recorded the data from the interview using note-taking method. All the executive officers of every ministry were selected to take part in the study as they were perceived to be knowledgeable on the issues under study and for which they were either responsible for their execution or they personally executed. The views of key informants are widely used in marketing and business-related

studies (O'suullivan & Abela, 2007). Secondary data on the other hand, was obtained from the already written literature on the government ministries which was used to cross-validate and check the consistency of the questionnaire responses. Documentary analysis was also used to gather background information by reviewing literature relevant to the study. This involved a review of secondary data from sources such as books, journals, ministerial reports, ministries' operation plans and Strategic Plans (SP) and other relevant documents from authoritative sources on the topic under study, 'Drop and pick' technique was used to administer the questionnaire by the researcher personally.

3.5 Pilot test

In order to ensure content validity, the preliminary questionnaire and interview guide were pre-tested on a pilot set of respondents for comprehension, logic and relevance. The pilot study included 10 respondents from the targeted population. According to Cooper and Schindler (2003), the pilot group should form 10% of the sample and can range from 10 to 100 subjects but it does not need to be statistically selected. The questionnaire and interview guide were pre-tested on pilot respondents who were not part of the study respondents but who were knowledgeable in the study aspects in order to ensure their validity and relevance. According to Kombo and Tromp (2006), validity is the accuracy and meaningfulness of inferences, which are based on research results and it is the measure of how well a data collection instrument measures what it is supposed to. The questionnaire, interview guide and the measurement process were guided by the conceptual framework in order to measure the key elements of the study and ensure construct validity because they reflected the key components of the study variables. All the aspects of the questionnaire and interview guide were pre-tested including the question content, wording, form and layout. The feedback obtained was used in revising the questionnaire and interview guide before they were administered to the study respondents.

Reliability is the extent to which an instrument is predictable, stable, accurate and dependable to yield the same results every time it is administered. Reliability refers to the measure of the degree to which a research instrument yields consistent results

on across time and across the various items of the instrument (Sekaran, 2003). Cronbach's alpha coefficient was used to measure the reliability of the study instruments, which was also used to assess the interval consistency among the research instrument items.

The study measures are said to be reliable if they have Cronbach's alpha coefficient greater than the minimum accepted Cronbach's alpha coefficient of 0.70 (Sekaran, 2003).

3.6 Data Processing and analysis

The questionnaires were administered to all the 18 government ministries. The researcher edited them to ensure their completeness and consistency, Coding and classification then followed to ensure sufficient analysis. The data was entered and analyzed by simple descriptive analysis using statistical package for social scientists (SPSS, version twenty one (21), computer software to generate cumulative frequencies and percentages. The data was analyzed using both descriptive and inferential statistics. The software package was chosen because it is the most used package for analyzing survey data. Besides being the most used package, the software has the advantage of being user friendly (Mugenda, 2003).

3.6.1 Qualitative Analysis

Qualitative data was analyzed qualitatively and more specifically, the data which could not be measured using scientific methods. Qualitative data dealt with descriptions of data that could be observed but could not be measured. In this study direct observation of service quality by government ministries was done and the relevant documents including the internet were scrutinized. The researcher analyzed research information gathered from interviews with Executive Officers (Administration) to establish patterns created by words, phrases, views, and attitudes to form a theme, and to which numbers were assigned to make them measurable.

3.6.2 Quantitative Analysis

Quantitative data was analyzed using both the descriptive and inferential statistics. Descriptive statistics was used to deduce any patterns, averages and dispersions in the variables. They included measure of locations (mean) and measure of dispersions (standard error mean). These measures were used to describe the characteristics of the collected data. Inferential statistics was used to determine the relationship between the study variables and these inferential statistics including correlation, analysis of variance (ANOVA) and regression. These were used to assess the association among the study variables and test the hypotheses at 95 percent confidence level (level of significance, $\alpha = 0.05$).

The relationship between entrepreneurial behavior, perceived quality service, control variable and moderating factors in government ministries was expected to follow a regression model of the nature:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon \text{ Where:}$$

Y = dependent variable (perceived service delivery).

β_0 = Constant or intercept which is the value of dependent variable when all the independent variables are zero.

β_{1-3} = Regression coefficient for each independent variable.

X_1 = Employee innovativeness

X_2 = Employee pro-activeness

X_3 = Employee risk taking

B_4X_4 =Work environment (Moderating Variable)

ε = Stochastic or disturbance term or error term.

The linear regression model fitted was diagnosed for the assumptions of ordinary least squares (OLS). Tests of normality of the residuals, non-autocorrelation of the residuals, homoscedasticity of the residuals and non-multicollinearity of the predictors were therefore carried out to test if the model met these assumptions of OLS.

Table 3.2 outlines how the relevant two-tail hypotheses test was done and the regression and partial correlation models.

Table 3.1: Study Hypotheses and Analytical Models

Hypothesis	Hypothesis test	Statistical model
H₀₁ Employee innovativeness does not have effect on perceived service quality by government ministries in Kenya.	<p>$H_0: \beta = 0$ $H_A: \beta \neq 0$</p> <p>To conduct a <i>t</i> test to determine individual significance of the relationship</p> <p>To conduct an <i>F</i> test (AOV) to assess overall robustness and significance of the simple regression model</p> <p>Reject H_{01} if $p\text{-value} \leq \alpha$, otherwise fail to reject H_{01} if $p\text{-value}$ is $> \alpha$</p>	<p>$Y = \beta_0 + \beta_1 X + \varepsilon$. Where;</p> <p>$Y$ = the aggregate mean score of perceived service delivery. β_0 = y-intercept/ constant. B_1 = Regression coefficient (beta), X = Aggregate mean score of employee creativity and innovation ε = Error term- random variation due to other unmeasured factors.</p>
H₀₂ Employee pro-activeness does not have effect on perceived service delivery by government ministries in Kenya.	<p>$H_0: \beta = 0$ $H_A: \beta \neq 0$</p> <p>To conduct a <i>t</i> test to determine individual significance of the relationship.</p> <p>To conduct an <i>F</i> test to assess overall robustness and significance of the simple regression model</p> <p>Reject H_{02} if $p\text{-value} \leq \alpha$, otherwise fail to reject H_{02} if $p\text{-value}$ is $> \alpha$</p>	<p>$Y = \beta_0 + \beta_2 X + \varepsilon$. Where;</p> <p>$Y$ = the aggregate mean score of perceived service delivery. β_0 = y-intercept/ constant. B_1 = Regression coefficient (beta), X = Aggregate mean score of employee pro-activeness ε = Error term- random variation due to other unmeasured factors.</p>
H₀₃ Employee risk taking does not have effect on perceived service delivery by government ministries in Kenya.	<p>$H_0: \beta = 0$ $H_A: \beta \neq 0$</p> <p>To conduct a <i>t</i> test to determine individual significance of the relationship</p> <p>To conduct an <i>F</i> test to assess overall robustness and significance of the simple regression model</p> <p>Reject H_{03} if $p\text{-value} \leq \alpha$, otherwise fail to reject H_{03} if $p\text{-value}$ is $> \alpha$</p>	<p>$Y = \beta_0 + \beta_3 X + \varepsilon$. Where;</p> <p>$Y$ = the aggregate mean score of perceived service delivery. β_0 = y-intercept/ constant. B_1 = Regression coefficient (beta), X = Aggregate mean score of employee risk taking ε = Error term- random variation due to other unmeasured factors.</p>
H₀₄ Moderating factors do not have effect on the relationship between entrepreneurial behaviour and perceived service delivery in government ministries in Kenya.	<p>$H_0: r_{xy.z} = 0$ $H_A: r_{xy.z} \neq 0$</p> <p>Reject H_{04} if $p\text{-value}$ is $\leq \alpha$, otherwise fail to reject H_{04} if $p\text{-value}$ is $> \alpha$.</p>	<p>$R_{xy.z} = \frac{r_{xy.z}(r_{xz})(r_{yz})}{\sqrt{1-r_{xz}} \cdot \sqrt{1-r_{yz}}}$</p> <p>Where: $r_{xy.z}$ = partial correlation coefficient of variable x and y controlling for variable z.</p> <p>X = Aggregate mean score of entrepreneurial behaviour Y = Aggregate mean score of perceived service delivery. Z = Individual moderating factors.</p>

The moderating effect of the moderating factors will be the change between the two R^2 from the following two multiple regression models below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + Z (\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3)$$

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_1 Z * X_1 + \beta_2 Z * X_2 + \beta_3 Z * X_3$$

Where:

Y = dependent variable (perceived service delivery).

β_0 = Constant or intercept which is the value of dependent variable when all the independent variables are zero.

β_{1-3} = Regression coefficient for each independent variable.

ε = Stochastic or disturbance term or error term.

X_1 = Employee innovativeness

X_2 = Employee pro-activeness

X_3 = Employee risk taking

Z = Individual moderating factor

Table 3.2: Operationalization of study variables

Variable Scale	Indicators	Source	Measurement
Employee Innovativeness	Idea realization		Likert
	Idea promotion		Likert
Employee Proactiveness	Opportunity seeking		Likert
	Forward looking		Likert
Employee risk-taking	Locus of control		Likert
	Aggression		Likert
Work Environment	Work culture		Likert
	Nature of work		Likert
Perceived Service Quality	Tangibility		Likert
	Reliability		Likert
	Responsiveness		Likert
	Assurance		Likert
	Empathy		Likert

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

The chapter presents the research response level, data coding and cleaning as well as the assessment of data normality, linearity and independence and a descriptive analysis of all the study variables. Also presented in this chapter are the hypotheses tests and the regression models of the study variables.

4.2 Response Rate

The study had a sample of 72 respondents and the researcher managed to successfully collect data from all the 72 respondents. This represents a response rate of 100 percent of the sample size and the researcher considered the response rate good. The response rate of 100% was considered very good. Bruno (2015) suggests that a response rate of 60% is good and 70% and above is very good. The response rate reached was due to consistent several visits made to the respondents by the researcher. The data was then coded and cleaned through extensive checks for consistency. Data was analyzed using a set of descriptive and inferential statistics in statistical package for social sciences (SPSS) version 21.0.

4.3 Diagnostic Test

According to Blumberg, Cooper and Schindler (2011) a pilot test is necessary to confirm clarity and logical flow of the format in a questionnaire and confirm if questions are clear, short and if they test the questionnaire credibility. The pilot should constitute at least 1% of the sample. In this study, the pilot test was conducted on 10 respondents.

4.3.1 Instrument validity

4.3.1.1 Factor Analysis of observed indicators

Factor analysis was used as a dimension reduction technique. This formed the basis of validity checks by analyzing the underlying structure of the constructs and their indicators. The study adopted confirmatory factor analysis to study the underlying structure of the constructs by determining the factor loadings which are the variance and correlations between the variables constructs and the factors (Mugenda, 2008). The analysis of the factor loadings helped to determine whether the indicators belonged to the constructs as stipulated in the theories. Indicators with factor loadings above 0.4 were retained to belong to the constructs while those with loadings below 0.4 were expunged. The factor loading matrix showing the retained indicators and those expunged are shown in Appendix III.

4.3.1.2 Construct validity of the instrument

Construct validity was checked for the instrument by the use of factor analysis results to measure both convergent and discriminant validity. Convergent validity was used to test if constructs that are expected to be related are related while discriminant validity tested to confirm that constructs that are not expected to have relationships are actually not related. Kusumawardhani (2013) determined convergent validity and discriminant validity to assess construct validity for her study

4.3.1.3 Convergent validity of the instrument

To test construct validity, the researcher measured the average extracted variance within each construct. Mwangi and Ngugi (2014) employed AVE, factor loadings and composite reliability to determine convergent validity of their study variables. As shown in table 4.1, the computations meet the desired threshold for construct validity. All the AVEs for the constructs are above 0.5 implying high correlation of observed variables within their latent constructs. The average extracted variance of perceived service quality was 0.876, employee innovativeness 0.864, employee pro-activeness 0.864, employee risk taking 0.864 and work environment 0.846.

Table 4.1: Average Variance Extracted

Construct	AVE
Perceived service quality	0.876
Employee innovativeness	0.864
Employee pro-activeness	0.864
Employee risk taking	0.864
Work Environment	0.846

4.3.1.4 Discriminant validity of the instrument

To measure discriminant validity, a comparison of the average variance extracted for each construct and the squared correlations were computed and tabulated. The table below shows the comparison between the AVEs on the diagonal and highlighted. On comparison, all the AVEs are greater than the squared correlations between the constructs implying that the instrument exhibits discriminant validity.

Tables 4.2 shows the results of squared correlations while table 4.3 is a matrix comparison of the squared correlations and the AVEs.

The squared correlation between perceived service quality with itself was 1 while with employee innovativeness is 0.294, employee pro-activeness 0.261, employee risk taking 0.145 and work environment 0.056. The squared correlation between employee innovativeness with itself was 1 and with perceived service quality was 0.294, employee pro-activeness 0.024, employee risk taking 0.001 and work environment 0.009. The squared correlation between employee pro-active with itself was 1 while with perceived service quality was 0.261, employee innovativeness 0.024, employee risk taking 0.014 and with work environment 0.001. The squared correlation between employee risk taking and itself was 1 while with perceived service quality was 0.145, employee innovativeness 0.001, employee pro-activeness 0.014 and with work environment 0.005. The correlation between work environment and itself was 1 while with perceived service quality it was 0.056, employee

innovativeness 0.009, employee pro-activeness 0.001 and with employee risk taking was 0.005.

From the above analysis, the squared relations between employee innovativeness and perceived service quality was the strongest at 0.294, followed by employee pro-activeness at 0.261, employee risk taking at 0.145 and work environment at 0.056. The implication is that while government ministries may try to improve their work environment, they need to pay more attention to encouraging employee innovativeness, pro-activeness and risk taking behavior if service quality was to be achieved.

Table 4.2: Correlations of study constructs

	Perceived service quality	Employee innovativeness	Employee pro-activeness	Employee risk taking	Work Environment
Perceived service quality	1	0.294	0.261	0.145	0.056
Employee innovativeness	0.294	1	0.024	0.001	0.009
Employee pro-activeness	0.261	0.024	1	0.014	0.001
Employee risk taking	0.145	0.001	0.014	1	0.005
Work Environment	0.056	0.009	0.001	0.005	1

Table 4.3: Squared correlations and AVE

	Perceived service quality	Employee innovativeness	Employee pro-activeness	Employee risk taking	Work Environment
Perceived service quality	0.876	0.294	0.261	0.145	0.056
Employee innovativeness	0.294	0.864	0.024	0.001	0.009
Employee pro-activeness	0.261	0.024	0.864	0.014	0.001
Employee risk taking	0.145	0.001	0.014	0.864	0.005
Work Environment	0.056	0.009	0.001	0.005	0.846

4.3.1.5 KMO and Bartlett's test

The Kaiser-Meyer-Olkin measures of sampling adequacy (KMO) and Bartlett's test are a measure of sampling adequacy. This measure helps to confirm whether the results of factor analysis yield reliable results with compact correlation patterns. The KMO value is 0.792 which is greater than 0.7 and closer to 1 implying relatively compact patterns of correlations and hence the factor analysis is likely to be appropriate (Costello & Osborne, 2005). The chi-square statistic of the Bartlett's test has a p-value which is less than 0.05 implying that the relationship between factors is significant and therefore factor analysis would be useful from the data collected for pilot. The KMO statistics are presented in table 4.4.

Table 4.4: KMO and Bartlett's

Test	Value
Kaiser-Meyer-Olkin measure of sampling adequacy.	0.792
Bartlett's test of sphericity	Approx. Chi-square
	4
	Df
	741.000
	sig.
	0.000

4.3.2 Reliability of the instrument

Reliability was tested to confirm the ability of the data collection instrument used to produce consistent and stable measurements. This tested the extent of measurement error in a measurement. To test the ability of the instrument used to produce consistent and stable measurements, a reliability test was conducted. The test was based on Cronbach alpha of 0.70 threshold as shown in table 4.5 and was generated by statistical package for social sciences (SPSS). Internal consistency indicates the extent to which a set of items can be treated as measuring a single latent variable (Cronbach, 1951). According to Du Plessis (2010), results of Cronbach alpha coefficients not exceeding 0.60 reflect the lower level of acceptability.

The Cronbach alpha of each of the five variables was above the threshold of 0.07, with perceived service quality at 0.978, employee innovativeness 0.959, employee pro-activeness 0.969, employee risk taking 0.954 and work environment at 0.964, implying that the instrument used to collect data on the variables had a strong ability to produce consistent and stable measurements.

Table 4.5: Reliability statistics of the instrument

Variable	Number of Items	Cronbach's Alpha	Comment
Perceived service quality	15	.978	Accepted
Employee innovativeness	9	.959	Accepted
Employee pro-activeness	9	.969	Accepted
Employee risk taking	9	.954	Accepted
Work Environment	12	.964	Accepted

4.4 Descriptive analysis

The indicators were measured on an ordinal categorical scale thus the descriptive statistics used the mode as the measure of central tendency rather than the mean. The results for the mode were presented in frequency tables for each variable. Descriptive analysis was conducted for the constructs employee imitativeness, employee proactiveness, employee risk taking, perceived service quality and work environment.

4.4.1 Employee innovativeness

The first objective was to determine the influence that employee innovativeness has on perceived service quality by government ministries in Kenya. Employee innovativeness was measured by looking at various indicators of innovativeness that the respondents were asked about. The analysis of the indicators of employee innovativeness are presented in table 4.6.

Considering the indicator statement on the extent to which employees in the ministry are allowed to suggest new and better ways of serving the public; 15% of the respondents believed that employees in the ministry were not allowed to suggest new and better ways of serving the public while 21% of the respondents believed that it did only to a small extent. 17% of the respondents believed that it did to a moderate extent while 32% of the respondents believed that it did to a great extent. 15% of the

respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 4 implying that on average, employees in the ministry were allowed to suggest new and better ways of serving the public to a great extent.

When it comes to the ministry encouraging employee innovativeness, 14% of the respondents believed that the ministry did not encourage employee innovativeness at all while 17% of the respondents believed that it did, but only to a small extent. 22% of the respondents were of the view that it did to a moderate extent. There are 21% of the respondents who believed that it did to a great extent and 26% of the respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 5 which implying that on average, the ministry did encourage employee innovativeness to a very great extent.

Analysis of the extent to which the ministry is quick to use new methods shows that 8 respondents did not believe that the ministry was quick to use new methods while 19% of the respondents believed that it did but only to a small extent. On the other hand, 22% of the respondents were of the opinion that it did to a moderate extent while 19% of the respondents believed that it did to a great extent. The majority (28%) of the respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 5. This implied that on average, the ministry was quick to use new methods to a very great extent.

How often developing one's own ideas is encouraged for the improvement of the public sector was analyzed and 18% respondents believed that in the ministry, developing one's own ideas was not encouraged at all. 21% of the respondents believed that it did only to a small extent and 15% of the respondents believed it did but only to a moderate extent. There were 19% of the respondents who believed that it did to a great extent and 26% of the respondents who believed that it did to a very great extent. The modal class of the responses to this indicator was 5. This implied that on average, in the ministry, developing one's own ideas was encouraged for the improvement of the public sector to a very great extent.

Considering the extent to which senior public officers in the ministry are aware and receptive to employees' ideas and suggestions; 18% of the respondents believed that

senior public officers in the ministry were not aware or even a little receptive to their ideas and suggestions at all while 18% of the respondents believed that they are but only to a small extent. 18% of the respondents believed that they were to a moderate extent while 18% of the respondents believed that they were receptive to a great extent. A whopping majority of 28% of the respondents however believed that they were aware and receptive to a very great extent. The modal class of the responses was found to be 5 which implied that on average, senior public officers in the ministry were aware and very receptive to employees' ideas and suggestions to a very great extent.

In depth analysis of the indicator statement on the extent to which promotion, salary increment, or commendation usually follows the development of new and innovative ideas; 18% of the respondents believed that promotion, salary increment, or commendation did not usually follow the development of new and innovative ideas while 19% of the respondents believed that it did but only to a small extent. 28% of the respondents believed that it did to a moderate extent while 14% of the respondents believed that it did to a great extent. 21% of the respondents believed that it did to a very great extent leading to a modal class of 3. This implied that on average, promotion, salary increment, or commendation usually followed the development of new and innovative ideas to a moderate extent.

When it comes to the frequency of availability of money to get new project ideas off the ground, 17% of the respondents believed that money is never available to get new project ideas off the ground while 19% of the respondents believed that money was available but only to a small extent. 22% of the respondents believed that it was available to a moderate extent and 15% of the respondents believed that it was available to a great extent. 26% of the respondents which was the majority believed that money is available to a very great extent. The modal class of the responses to this indicator was 5 which implying that on average, money was often available to get new project ideas off the ground to a large extent.

Individuals with successful innovative projects ought to receive additional reward and compensation for their ideas and efforts beyond the standard reward system but

19% respondents believed that such individuals did not receive any additional reward and compensation. 14% of the respondents believed that they did only to a small extent and 28% of the respondents that they did to a moderate extent. Consequently 19% of the respondents believed that innovative individuals were rewarded to a great extent with another 19% believing that they were compensated to a very great extent. The modal class of the responses to this indicator was 3 hence implying that on average, individuals with successful innovative projects did receive additional reward and compensation for their ideas and efforts beyond the standard reward system to a moderate extent.

Analyzing the extent to which senior managers encourage innovators to bend rules and rigid procedures in order to keep promising ideas on track; 8 respondents believed that senior managers do not encourage innovators to bend rules and rigid procedures in order to keep promising ideas on track at all while 18% of the respondents believed that they do but only to a small extent. 21 respondents believed that they do to a moderate extent while the majority of respondents believed that they do to a great extent. 15% of the respondents believed that they do to a very great extent. The modal class of the responses to this indicator was 3 implying that on average, senior managers encourage innovators to bend rules and rigid procedures in order to keep promising ideas on track to a moderate extent.

Table 4.6: Frequency table on Employee innovativeness

Indicator	Not at all (1)	Small extent (2)	Moderate extent (3)	Great extent (4)	Very great extent (5)	Modal Class
Employees in the ministry are allowed to suggest new and better ways of serving the public	15%	21%	17%	32%	15%	4
The ministry encourages employee innovativeness	14%	17%	22%	21%	26%	5
The ministry is quick to use new methods	11%	19%	22%	19%	28%	5
In the ministry, developing one's own ideas is encouraged for the improvement of the public sector	18%	21%	15%	19%	26%	5
Senior Public Officers in the ministry are aware and very receptive to employees ideas and suggestions from employees	18%	18%	18%	18%	28%	5
Promotion, salary increment, or commendation usually follows the development of new and innovative ideas	18%	19%	28%	14%	21%	3
Money is often available to get new project ideas off the ground	17%	19%	22%	15%	26%	5
Individuals with successful innovative projects receive additional reward and compensation for their ideas and efforts beyond the standard reward system	19%	14%	28%	19%	19%	3
Senior managers encourage innovators to bend rules and rigid procedures in order to keep promising ideas on track	11%	18%	29%	26%	15%	3

Although this analysis indicates that employee innovativeness is encouraged in most ministries, there is a certain group of employees, small though, who feel employee innovativeness is not encouraged. This are those who responded as Not at all and Small extent. This implies therefore that the practice may not be elaborate and hence

the need to incorporate distinct practices that encourage employee innovativeness that can be seen and felt by employees at all levels in the ministries.

4.4.2 Employee pro-activeness

The second objective required the study to measure Employee pro-activeness, to analyze it and determine the influence that employee pro-activeness has on perceived service quality by government ministries in Kenya. Table 4.7 shows the frequencies of responses to this variable. Employee pro-activeness was measured by looking at various indicators of pro-activeness that the respondents were asked about.

Considering the indicator statement on the extent to which the ministry allows employees the freedom to be their own boss; 14% of the respondents believed that the ministry does not allow employees the freedom to be their own boss while 19% of the respondents believe that it does but only to a small extent. 18% of the respondents believed that it does to a moderate extent and 28% of the respondents believed that it does to a great extent. 21% of the respondents believed that it does to a very great extent leading to a modal class of 4. This implied that on average, the ministry allowed employees the freedom to be their own boss.

Analyzing the extent to which harsh criticism and punishment of employees result from mistakes made on the job; 18% of the respondents believed that harsh criticism and punishment results from mistakes made on the job to no extent at all while 19% of the respondents believe that it does only to a small extent and 18% of the respondents believed that it did to a moderate extent. There are 26% of the respondents who believed that it did to a great extent, 18% of the respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 4. This implied that on average, harsh criticism and punishment of employees resulted from mistakes made on the job to a great extent.

Considering the extent to which the ministry provides employees the chance to be creative and try their own methods of doing their job; 10% of the respondents believed that the ministry did not provide employees the chance to be creative and try their own methods of doing their job while 22% of the respondents believed that

it did but only to a small extent. 24% of the respondents believed that it did to a moderate extent and 26% of the respondents believed that it did to a great extent. 18% of the respondents believed that it did to a very great extent which brings the modal class to 4. This implied that on average, the ministry did provide employees the chance to be creative and try their own methods of doing their job.

Employees consider the freedom to use their own judgment as important. 15% of the respondents believed that the ministry did not provide employees the freedom to use their own judgment at all while 28% of the respondents believed that it did but only to a small extent. 14% of the respondents believed that it did to a moderate extent with 26% others believed that it did to a great extent. 17% of the respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 2 which implied that on average, the ministry rarely provides employees the freedom to use their own judgment.

For the extent to which the ministry provides every employee with the chance to do something that makes use of their abilities; 26% of the respondents believed that the ministry does not provide employees with the chance to do something that makes use of their abilities at all while 14% of the respondents believed that it does but only to a small extent. 15% of the respondents believed that it does to a moderate extent, 21% of the respondents believed that it does to a great extent and 24% of the respondents believed that it does to a very great extent. The modal class of the responses to this indicator was 1. This implied that on average, the ministry had failed at providing every employee with the chance to do something that makes use of their abilities.

Analyzing the extent to which employees have the freedom to decide what they need to do on their job; 14% of the respondents believed that employees had no freedom to decide what they need to do on their job while 25% of the respondents believed that they had the freedom but only to a small extent. 19% of the respondents believed that they had freedom to a moderate extent and 24% of the respondents believed that they had the freedom to a great extent. 18% of the respondents believed that they did have freedom to a very great extent. The modal class of the responses to this indicator was 2. This implied that on average, employees did not have the freedom to decide what they needed to do on their job.

Considering the extent to which it is basically employees' own responsibility to decide how their job gets done; 13% of the respondents believed that it is not employees' own responsibility to decide how their job gets done at all while 22% of the respondents believed that it was the employees' responsibility only to a small extent. 25% of the respondents believe that it was to a moderate extent. There were 11% of the respondents who believed that it was to a great extent while 21% of the respondents believed that it was to a very great extent. The modal class of the responses to this indicator was 5 which implied that on average, it was basically employees' own responsibility to decide how their job got done to a very great extent.

Analyzing the extent to which employees have much autonomy on their job and they are left on their own to do their own work; 10% of the respondents believed that employees did not have much autonomy to do their own work while 21% of the respondents believed that they did but only to a small extent. 22% of the respondents believed that they did have autonomy to a moderate extent. There were 32% of the respondents who believed that they did have autonomy to a great extent while 15% of the respondents believe that they did to a very great extent. The modal class was 5 which implied that on average, employees had much autonomy on their job and they were left on their own to do their own work.

Table 4.7: Frequency table on Employee pro-activeness

Indicator	Not at all (1)	Small extent (2)	Moderate extent (3)	Great extent (4)	Very great extent (5)	Modal Class
The ministry allows employees the freedom to be their own boss	14%	19%	18%	28%	21%	4
Harsh criticism and punishment of employees result from mistakes made on the job	18%	19%	18%	26%	18%	4
The ministry provides employees the chance to be creative and try their own methods of doing their job	10%	22%	24%	26%	18%	4
The ministry provides employees the freedom to use their own judgment	15%	28%	14%	26%	17%	2
The ministry provides every employee with the chance to do something that makes use of their abilities	26%	14%	15%	21%	24%	1
Employees have the freedom to decide what they need to do on their job	14%	25%	19%	24%	18%	2
It is basically employees' own responsibility to decide how their job gets done	13%	22%	25%	11%	29%	5
Employees almost always get to decide what they do on their job	17%	24%	26%	17%	17%	3
Employees have much autonomy on their job and they are left on their own to do their own work	10%	21%	22%	32%	15%	4

While employee freedom in deciding how to do their work is allowed in most ministries with the modal classes ranging from 2 – 4, employees felt they did not have the freedom to utilize their abilities, with a modal class of 1. Although most employees appreciated that they were given the freedom to decide how to do their work, their abilities were still not fully utilized as their discharge of duties still had to conform to the ministry's established systems.

4.4.3 Employee risk taking

The third objective of the study required the researcher to determine the influence that employee risk taking has on perceived service quality by government ministries in Kenya. Risk taking was analyzed and presented in table 4.8. Employee risk taking was measured by looking at various indicators of risk taking that the respondents were asked about.

The extent to which individual risk takers were often recognized for their willingness to champion new projects, whether eventually successful or not was analyzed and 5 respondents believed that individual risk takers were never recognized for their willingness to champion new projects, whether eventually successful or not while 26% of the respondents believed that they were recognized but only to a small extent. 19% of the respondents believed they were recognized to a moderate extent. 27% of the respondents believed that they were recognized to a great extent and 19% of the respondents believed that they were recognized to a very great extent. The mode was found to be 4 which implied that on average, individual risk takers were often recognized for their willingness to champion new projects, whether eventually successful or not to a great extent.

Calculated risks with new ideas were a major factor in consideration. 16% of the respondents believed that employees in the ministry were never encouraged to take calculated risks while 16% of the respondents believe that they were encouraged to take calculated risks but only to a small extent. 25% of the respondents believed that they were encouraged to take risks to a moderate extent while 23% others believed they were encouraged to a great extent. 18% of the respondents believed that taking calculated risks was encouraged to a very great extent. The modal class of the responses to this indicator was 3 implying that on average, employees in the ministry were often encouraged to take calculated risks with new ideas in moderation.

Considering the indicator statement on the extent to which the ministry supported many small and experimental projects realizing that some would undoubtedly fail; 18% of the respondents believed that this ministry does not support many small and experimental projects realizing that some will undoubtedly fail while 22% of the respondents believed that it does but only to a small extent. 18% of the respondents believed that it did to a moderate extent. There were 27% of the respondents who believed that it did to a great extent, 14% of the respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 4 which implied that on average, the ministry supported many small and experimental projects despite realizing that some would undoubtedly fail.

Analyzing the extent to which a supervisor would give the employee special recognition if their work performance was especially good; 21% of the respondents believed that their supervisor would not give them special recognition if their work performance was especially good while 18% of the respondents believed that recognition would be given but only to a small extent. 16% of the respondents believed that recognition was given to a moderate extent. There were 23% of the respondents who believes that it was given to a great extent while 21% of the respondents believed that was given to a very great extent. The modal class of the responses to this indicator was 4. This implied that on average, a supervisor would the employee special recognition if their work performance was especially good.

Analyzing the extent to which an employee with a good idea was often given free time to develop the idea; 18% of the respondents believed that an employee with a good idea was not given free time to develop the idea at all while 21% of the respondents believed that time was given but only to a small extent. 19% of the respondents believed that time was given to a moderate extent. There were 27% of the respondents who believed that time was given to a great extent and 14% believed that time to develop ideas was given to a very great extent. The modal class was found to be 4 which implied that on average, an employee with a good idea was often given free time to develop their idea to a great extent.

Considering the extent to which employees were encouraged to talk to workers in other departments of the ministry about ideas for new projects; 15% of the respondents believed that employees were not at all encouraged to talk to workers in other departments about ideas for new project while 22% of the respondents believed that they were encouraged but only to a small extent. 32% of the respondents believed that encouragement was given to a moderate extent. There were 15% of the respondents who believed that it was given to a great extent and 15% of the respondents believed that it was given to a very great extent. The modal class of the responses to this indicator was 3. This implies that on average, employees were moderately encouraged to talk to workers in other departments of their ministry about ideas for new projects.

When it came to on-the-job challenges, 8% of the respondents believed that there were no challenges on the job while 25% of the respondents believed challenges were there but only to a small extent. 22% of the respondents believed that challenges were there to a moderate extent. There were 33% of the respondents who believed that challenges were there to a great extent while 11% of the respondents believed that they were present to a very great extent. The modal class of the responses to this indicator was 4. This implied that on average, there were a lot of challenges in the job to a great extent. Generally, the environment for employee risk-taking was good with modal of 3 to 5. Ministries should establish systems and incentives that would help to sustain employees' high desire to take risk, with a modal class of 5, while at the same time creating a risk-taking culture among employees in government ministries.

Table 4.8: Frequency table on Employee risk taking

Indicator	Not at all (1)	Small extent (2)	Moderate extent (3)	Great extent (4)	Very great extent (5)	Modal Class
Individual risk takers are often recognized for their willingness to champion new projects, whether eventually successful or not	8%	26%	19%	27%	19%	4
Employees in my ministry are often encouraged to take calculated risks with new ideas around here	18%	16%	25%	23%	18%	3
The term “risk taker” is considered a positive attribute for employees in my ministry	14%	19%	25%	21%	22%	3
This ministry supports many small and experimental projects realizing that some will undoubtedly fail	19%	22%	18%	27%	14%	4
My supervisor will give me special recognition if my work performance is especially good	22%	18%	16%	23%	21%	4
An employee with a good idea is often given free time to develop that idea	19%	21%	19%	27%	14%	4
There is considerable desire among employees in the ministry for generating new ideas without regard to crossing departmental or functional boundaries	16%	16%	23%	19%	25%	5
Employees are encouraged to talk to workers in other departments of this ministry about ideas for new projects	16%	22%	32%	15%	15%	3
There is a lot of challenge in my job	10%	25%	22%	33%	11%	4

4.4.4 Perceived service quality

The study based the perceived service quality by government ministries in Kenya as the dependent variable. The study sought to find out the influence that employee behaviour have on the perceived service quality by government ministries in Kenya.

To measure the dependent variable perceived service quality, various indicators were considered and questions formulated categorized under service quality, reliability, responsiveness, assurance and empathy.

4.4.4.1 Service quality

Under service quality the analysis of the questions asked and responded to and presented in the frequency table 4.9 for the level of importance given to the indicator that the public is usually impressed by the physical appearance of the ministry's work environment and the staff; 14% respondents were in agreement that the public's perception and impression by the staff and physical appearance of the ministry's work environment was not at all considered important, 24% respondents believed that it was considered as not so important while 26% respondents agreed that it was only somewhat important. There were 17% respondents who agreed that it was considered as fairly important and 19% respondents believed that it was very important. The modal class of the responses to this indicator was 3. This implied that on average, the public being impressed by the physical appearance of the ministry's work environment and the staff was somewhat important.

The ministry has been trying to employ modern equipment and technology in delivery of services and in regards to its importance, 18% respondents were in agreement that the ministry employed modern equipment and technology in delivery of services to the public was considered as not at all important. 24% respondents believed that it was considered as not so important while 18% respondents agreed that it was only somewhat important. There were 18% respondents who agreed that it was considered as fairly important and 18% respondents believed that it was very important. The modal class of the responses to this indicator was 2 implying that on average, the ministry employing modern equipment and technology in delivery of services to the public is not so important.

For communication materials used by the ministry being up to date; 7 respondents were in agreement that the communication materials used by the ministry being up to date was not at all important. 24% respondents believed that they were considered as not so important while 28% respondents agree that they were only somewhat

important. There were 18% respondents who agreed that they were considered as fairly important and 17% respondents believed that they were very important. The modal class of the responses to this indicator was 3 which implied that on average, the communication materials used by the ministry being up to date was quite important.

Table 4.9: Frequency table on Service quality

Indicator	Not at all important (1)	Not important (2)	So important (3)	Somewhat important (4)	Fairly important (5)	Very important (5)	Modal Class
The public is usually impressed by the physical appearance of the ministry's work environment and the staff.	14%	24%	26%	17%	19%	3	
The ministry employs modern equipment and technology in delivery of services to the public	18%	24%	18%	18%	18%	2	
The communication materials used by the ministry are up to date	7	24%	28%	18%	17%	3	

4.4.4.2 Reliability

Reliability was another aspect of service quality that was measured in different questions and presented in table 4.10. For the level of importance given to the indicator that the ministry was known for prompt service delivery; 11% respondents were in agreement that the ministry being known for prompt service delivery was considered as not at all important, 18% respondents believed that it was considered as not so important while 25% respondents agreed that it was only somewhat important. There was 24% respondents who agreed that it was considered as fairly important and 18% respondents believed that it was very important. The modal class of the responses to this indicator was 3. This implied that on average, the ministry being known for prompt service delivery was somewhat important.

Still looking at reliability through the level of importance given to the indicator that there was consistency in service delivery by the ministry; 7 respondents were in agreement that there being consistency in service delivery by the ministry was considered as not at all important, 31% respondents believed that it was considered as not so important while 25% respondents agreed that it was only somewhat important. There was 8% of respondents who agreed that it was considered as fairly important and 26% respondents believed that it was very important. The modal class of the responses to this indicator was 2. This implied that on average, there being consistency in service delivery by the ministry was not so important.

Another aspect of reliability was the level of importance given to the question of whether if asked, the public would recommend the ministry as the best service provider as far as accuracy in service delivery was concerned; 14% respondents were in agreement that the public recommending their ministry as the best service provider as far as accuracy in service delivery was concerned was considered as not at all important, 21 respondents believed that it was considered as not so important while 11% respondents agree that it was only somewhat important. There was 19% of respondents who agreed that it was considered as fairly important and 26% respondents believed that it was very important. The modal class of the responses to this indicator was 2. This implied that on average, the public recommending their ministry as the best service provider as far as accuracy in service delivery was concerned was not so important.

Table 4.10: Frequency table on Reliability in service performance

Indicator	Not at all important (1)	Not So important (2)	Somewhat important (3)	Fairly important (4)	Very important (5)	Modal Class
The ministry is known for prompt service delivery	11%	18%	25%	24%	18%	3
There is consistency in service delivery by the ministry	7	31%	25%	8%	26%	2
If asked, the public would recommend the ministry as the best service provider as far as accuracy in service delivery is concerned	14%	21	11%	19%	26%	2

4.4.4.3 Responsiveness

The questions addressing responsiveness as a measure of service quality were analyzed and presented in table 4.11. For the level of importance given to the indicator that employees in the ministry were always willing to assist and give prompt attention to requests and question from the public; 7 respondents were in agreement that employees in the ministry always being willing to assist and give prompt attention to requests and questions from the public was considered as not at all important, 18% respondents believed that it was considered as not so important while 18% respondents agreed that it was only somewhat important. There was 21% respondents who agreed that it was considered as fairly important and 25% respondents believed that it was very important. The modal class of the responses to this indicator was 5. This implied that on average, employees in the ministry always being willing to assist and give prompt attention to requests and questions from the public was very important.

Regarding the level of importance given to the indicator that the ministry had been known to offer solutions to problems experienced by the public as far as service delivery was concerned; 7 respondents were in agreement that the ministry being known to offer solutions to problems experienced by the public as far as service delivery was concerned was considered as not at all important, 21% respondents believed that it was considered as not so important while 28% respondents agreed that it was only somewhat important. There were 17% respondents who agreed that it was considered as fairly important and 25% respondents believed that it was very important. The modal class of the responses to this indicator was 3. This implied that on average, the ministry being known to offer solutions to problems experienced by the public as far as service delivery was concerned was somewhat important.

Considering the level of importance given to the indicator that employees in the ministry were flexible in their approach to service delivery; 8% respondents were in agreement that employees in the ministry being flexible in their approach to service delivery was considered as not at all important, 21 respondents believed that it was considered as not so important while 26% respondents agreed that it was only somewhat important. There were 18% respondents who agreed that it was considered as fairly important and 14% respondents believed that it was very important. The modal class of the responses to this indicator was 2. This implied that on average, employees in the ministry being flexible in their approach to service delivery was not so important.

Table 4.11: Frequency table on Responsiveness

Indicator	Not at all important (1)	Not So important (2)	Somewhat important (3)	Fairly important (4)	Very important (5)	Modal Class
Employees in the ministry are always willing to assist and give prompt attention to requests and questions from the public	7	18%	18%	21%	25%	5
The ministry has been known to offer solutions to problems experienced by the public as far as service delivery is concerned	7	21%	28%	17%	25%	3
Employees in the ministry are flexible in their approach to service delivery	8%	21	26%	18%	14%	2

4.4.4.4 Assurance

Another aspect of service quality that was measured and presented in table 4.17 was assurance. Starting with the level of importance given to the indicator that employees in the ministry exercised competence in service delivery to the public; 8% respondents were in agreement that employees in the ministry exercised competence in service delivery to the public was considered as not at all important, 24% respondents believed that it was considered as not so important while 26% respondents agreed that it was only somewhat important. There was 18% respondents who agreed that it was considered as fairly important and 24% respondents believed that it was very important. The modal class of the responses to this indicator was 3. This implied that on average, employees in the ministry exercising competence in service delivery to the public was somewhat important.

Another question asked to this regard was the level of importance given to the indicator that the public acknowledges it feels safe and secure in its transaction with the ministry. Here 13% respondents were in agreement that the public acknowledged it felt safe and secure in its transaction with the ministry was considered as not at all important, 24% respondents believe that it is considered as not so important while 26% respondents agreed that it was only somewhat important. There was 18% respondents who agree that it was considered as fairly important and 19% respondents believed that it was very important. The modal class of the responses to this indicator was 3. This implied that on average, the public acknowledging it feels safe and secure in its transaction with the ministry was somewhat important.

For the level of importance given to the indicator that employees in the ministry exercised high probity and confidentiality in their service delivery to the public.; 7 respondents were in agreement that employees in the ministry exercised high probity and confidentiality in their service delivery to the public was considered as not at all important, 25% respondents believed that it was considered as not so important while 18% respondents agreed that it was only somewhat important. There was 26% respondents who agreed that it was considered as fairly important and 17% respondents believed that it was very important. The modal class of the responses to this indicator was 4. This implied that on average, employees in the ministry exercising high probity and confidentiality in their service delivery to the public was fairly important.

Table 4.12: Frequency table on Assurance

Indicator	Not at all important (1)	Not So important (2)	Somewhat important (3)	Fairly important (4)	Very important (5)	Modal Class
Employees in the ministry exercise competence in service delivery to the public.	8%	24%	26%	18%	24%	3
The public acknowledges it feels safe and secure in its transaction with the ministry.	13%	24%	26%	18%	19%	3
Employees in the ministry exercise high probity and confidentiality in their service delivery to the public.	7	25%	18%	26%	17%	4

4.4.4.5 Empathy

The questions addressing empathy as a measure of perceived service quality were analyzed and presented in table 4.18. Considering the question on the level of importance given to the indicator that the ministry ensured that the services it offered were appropriate for the stakeholders; 15% respondents were in agreement that the ministry ensured that the services it offered were appropriate for the stakeholders was considered as not at all important, 21% respondents believed that it was considered as not so important while 18% respondents agreed that it was only somewhat important. There was 26% respondents who agreed that it was considered as fairly important and 19% respondents believed that it was very important. The modal class of the responses to this indicator was 4. This implied that on average, the ministry ensuring that the services it offered were appropriate for the stakeholders was fairly important.

The respondents were also asked on the level of importance given to the indicator that communication in their ministry is clear, appropriate and timely. For this, 17% of respondents were in agreement that clarity, appropriateness and timeliness in communication in the ministry was considered as not at all important, 17% respondents believed that it was considered as not so important while 15%

respondents agreed that it was only somewhat important. There was 28% of respondents who agreed that it was considered as fairly important and 24% respondents believed that it was very important. The modal class of the responses to this indicator was 4. This implied that on average, clarity, appropriateness and timeliness in communication in the ministry was fairly important.

Empathy was also measured by considering the level of importance given to the indicator that the public was able to access employees, services and information in the ministry without much problem; 4 respondents were in agreement that the public being able to access employees, services and information in their ministry without much problem was considered as not at all important, 21 respondents believed that it was considered as not so important while 33% respondents agree that it was only somewhat important. There are 17% respondents who agreed that it was considered as fairly important and 15% respondents believed that it was very important. The modal class of the responses to this indicator was 3. This implied that on average, the public being able to access employees, services and information in the ministry without much problem was somewhat important.

Table 4.13: Frequency table on Empathy

Indicator	Not at all important (1)	Not So important (2)	Somewhat important (3)	Fairly important (4)	Very important (5)	Modal Class
The ministry ensures that the services it offers are appropriate for the stakeholders	15%	21%	18%	26%	19%	4
Communication in my ministry is clear, appropriate and timely.	17%	17%	15%	28%	24%	4
The public is able to access employees, services and information in my ministry without much problem	4	21	33%	17%	15%	3

4.4.5 Work Environment

Work environment was considered as a moderating variable. The last objective was to determine the moderating influence that work environment has on the relationship between employee behaviour and perceived service quality by government ministries in Kenya. The variable work environment was measured by indicators in two categories, the first set of indicators used to measure work environment aimed at measuring the work culture in the ministries.

4.4.5.1 Work Culture

The descriptive analyses for the first indicators for this variable are presented in table 4.19%. Considering the indicator statement on the extent to which the work culture of the ministry encouraged employee innovation; 17% respondents believed that the work culture of the ministry encouraged employee innovation to no extent at all, while 18% respondents believed that it did only to a small extent and 31% respondents believed that it did to a moderate extent. There was 26% respondents who believed that it did to a great extent, 8% respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 3. This implied that on average, work culture encouraged employee innovation to a moderate extent.

For the indicator statement on the extent to which the ministry has enough employees to achieve service quality delivery; 14% respondents believed that the ministry had enough employees to achieve service quality delivery to no extent at all while 19% respondents believed that it did only to a small extent and 31% respondents that it did to a moderate extent. There was 19% respondents who believe that it did to a great extent, 17% respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 3. This implied that on average, the ministry had enough employees to achieve service quality delivery to a moderate extent.

The study also considered the indicator statement on the extent to which the work culture of the ministry cannot allow employee pro-activity; 7 respondents believed that the work culture of the ministry could allow employee pro-activity to no extent

at all while 21% respondents believed that it did only to a small extent and 21 respondents that it did to a moderate extent. There was 21% respondents who believed that it did to a great extent, 19% respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 3. This implied that on average, the work culture of the ministry could not allow employee pro-activity to a moderate extent.

Table 4.14: Frequency table on Work Culture

Indicator	Not at all (1)	Small extent (2)	Moderate extent (3)	Great extent (4)	Very great extent (5)	Modal Class
the work culture of the ministry encourages employee innovation	17%	18%	31%	19	8%	3
the ministry has enough employees to achieve service quality delivery	14%	19%	31%	19%	17%	3
the work culture of the ministry cannot allow employee pro-activity	7	21%	21	21%	19%	3

4.4.5.2 Nature of Work

To measure work environment, the study also looked at the indicator statement on the extent to which the work in the ministry allowed employees to make their own decisions about how to schedule their work. Here, 11% respondents believed that the nature of work in the ministry allowed employees to make their own decisions about how to schedule their work to no extent at all while 25% respondents believed that it did only to a small extent and 33% respondents that it did to a moderate extent. There was 18% respondents who believed that it did to a great extent, 13% respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 3. This implied that on average, the nature of work in the ministry allowed employees to make their own decisions about how to schedule their work to a moderate extent.

The respondents were also asked to respond to the extent to which the work allows employees to make decisions about what methods to use to complete their work. On this indicator, 8% respondents believed that the work allowed employees to make decisions about what methods to use to complete their work to no extent at all while 24% respondents believed that it did only to a small extent and 32% respondents that it did to a moderate extent. There was 15% respondents who believed that it did to a great extent, 21% respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 3. This implied that on average, the work allowed employees to make decisions about what methods to use to complete their work to a moderate extent.

Work environment was also measured using the indicator statement on the extent to which the work involves a great deal of task variety for which 14% respondents believed that the work involved a great deal of task variety to no extent at all while 24% respondents believe that it did only to a small extent and 21% respondents that it did to a moderate extent. There are 25% respondents who believed that it did to a great extent, 17% respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 4. This implied that on average, the work involved a great deal of task variety to a great extent.

Considering the indicator statement on the extent to which the work performed on the job has a significant impact on people outside the ministry; 13% respondents believed that the work performed on the job had a significant impact on people outside the ministry to no extent at all while 31% respondents believed that it did only to a small extent and 19% respondents believed that it did to a moderate extent. There was 24% respondents who believed that it did to a great extent, 14% respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 2. This implied that on average, the work performed on the job had a significant impact on people outside the ministry to a small extent.

Touching on the question of the extent to which the work involves completing a piece of work that has an obvious beginning and end; 8% respondents believed that the work involved completing a piece of work that had an obvious beginning and end

to no extent at all while 21% respondents believed that it did only to a small extent and 24% respondents that it did to a moderate extent. There was 32% respondents who believed that it did to a great extent, 8% respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 4. This implied that on average, the work involved completing a piece of work that had an obvious beginning and end, to a great extent.

The table also shows the extent to which the work activities themselves provide direct and clear information about the effectiveness (e.g., quality and quantity) of an employee's job performance; 13% respondents believed that the work activities themselves provide direct and clear information about the effectiveness (e.g., quality and quantity) of an employee's job performance to no extent at all while, 21% respondents believed that it did only to a small extent and 21% respondents believed that it did to a moderate extent. There are 24% respondents who believed that it did to a great extent, 15% respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 3. This implied that on average, the work activities themselves provided direct and clear information about the effectiveness (e.g., quality and quantity) of an employee's job performance, to a moderate extent.

Considering the indicator statement on the extent to which the work required an employee to engage in a large amount of thinking; 15% respondents believed that the work required that an employee engages in a large amount of thinking to no extent at all while 18% respondents believed that it did only to a small extent and 33% respondents that it did to a moderate extent. There was 17% respondents who believed that it did to a great extent, 17% respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 3. This implied that on average, the work required that an employee engages in a large amount of thinking, to a moderate extent.

The study also sought to find out the extent to which the work involved solving problems that had no obvious correct answer. To this, 17% respondents believed that the work involved solving problems that had no obvious correct answer to no extent

at all while 24% respondents believed that it did only to a small extent and 17% respondents that it did to a moderate extent. There was 25% respondents who believed that it did to a great extent, 18% respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 4. This implied that on average, the work involved solving problems that had no obvious correct answer.

As shown in the table for the indicator statement on the extent to which the work required employees to utilize a variety of different skills in order to complete their work; 13% respondents believed that the work required employees to utilize a variety of different skills in order to complete to no extent at all while 33% respondents believed that it did only to a small extent and 18% respondents that it did to a moderate extent. There are 17% respondents who believed that it did to a great extent, 19% respondents believed that it did to a very great extent. The modal class of the responses to this indicator was 2. This implied that on average, the work required employees to utilize a variety of different skills in order to complete.

Table 4.15: Frequency table on Nature of work

Indicator	Not at all (1)	Small extent (2)	Moderate extent (3)	Great extent (4)	Very great extent (5)	Modal Class
the nature of work in the ministry allows employees to make their own decisions about how to schedule their work	11%	25%	33%	18%	13%	3
the work allows employees to make decisions about what methods to use to complete their work.	8%	24%	32%	15%	21%	3
the work involves a great deal of task variety	14%	24%	21%	25%	17%	4
the work performed on the job has a significant impact on people outside the ministry	13%	31%	19%	24%	14%	2
the work involves completing a piece of work that has an obvious beginning and end	8%	28%	24%	32%	8%	4
the work activities themselves provide direct and clear information about the effectiveness (e.g., quality and quantity) of an employee's job performance	13%	21%	28%	24%	15%	3
the work requires that an employee engages in a large amount of thinking	15%	18%	33%	17%	17%	3
the work involves solving problems that have no obvious correct answer	17%	24%	17%	25%	18%	4
the work requires employees to utilize a variety of different skills in order to complete the work	13%	33%	18%	17%	19%	2

4.5 Inferential Analysis

At this stage of analysis the study sought to find out the nature of relationship between employee entrepreneurial behaviour and perceived service quality by government ministries in Kenya. The researcher used statistical techniques to determine the relationship between the independent variables and the dependent variable and further determined the levels of influence that employee innovativeness, employee pro-activeness and employee risk taking has on perceived service quality by government ministries in Kenya.

At this stage of analysis the study used the latent variables which are single measures per variable that resulted from the computation of total scores from factor analysis. On factor analysis the latent variables for each independent and dependent variable are computed from the factor scores and observed indicators of each variable. The indicators were measured on an ordinal categorical scale thus the descriptive statistics used the mode as the measure of central tendency rather than the mean, the resulting latent variables from factor analysis are however continuous thus the study used Pearson's correlation and ordinary least squares regression techniques to assess the relationship and influences which are used for continuous variables.

4.5.1 Correlation analysis of Employee behaviour and Perceived Service Quality

Pearson product moment correlation analysis was conducted to establish the relationship between the study variables. The following section presents the correlation analysis results between employee innovativeness, employee innovativeness, employee risk taking and perceived service quality.

As shown in Table 4.16 below, there is a significant positive correlation between independent variables and perceived service quality all at 0.05 level of significance. The relationship between perceived service quality and Employee innovativeness and that between perceived service quality and employee proactiveness are 0.542 NS 0.511 respectively which are moderate and significant. The relationship between perceived service quality and Employee risk taking is 0.381 which is weak but still

significant with a p-value less than 0.05. The relationships between the independent variables themselves are however all insignificant with all p-values greater than 0.05.

Most entrepreneurial behaviour dimensions such as innovativeness, proactiveness, and risk-taking, and competitive aggressiveness have a positive impact on services offered by organizations. Personal attributes are known to have a strong influence on the performance of employees. Employees who possess attributes such as innovativeness, proactiveness and risk taking propensity have the ability to deliver quality services than their colleagues who do not have such attributes. This emphasizes the need for developing entrepreneurial behaviour among employees of government ministries in Kenya.

Table 4.16: Correlation Results of Employee behaviour and Perceived Service Quality

		Perceived service quality	Employee innovativeness	Employee pro- activeness	Employee risk taking
Perceived service quality	Pearson's ρ	1	.542**	.511**	.381**
	2-tailed Sig.		0	0	0.001
Employee innovativeness	Pearson's ρ	.542**	1	0.154	0.036
	2-tailed Sig.	0		0.193	0.761
Employee pro- activeness	Pearson's ρ	.511**	0.154	1	0.12
	2-tailed Sig.	0	0.193		0.312
Employee risk taking	Pearson's ρ	.381**	0.036	0.12	1
	2-tailed Sig.	0.001	0.761	0.312	

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

4.5.2 Bivariate analysis of employee innovativeness and perceived service quality

The study assessed the influence of employee pro-activeness on perceived service quality by government ministries in Kenya as stated in the first objective. Table 4.17 presents a summary of regression model results. The value of R and R² are .542 and 0.294 respectively. This shows that there is a positive linear relationship between Employee innovativeness and perceived service quality by government ministries in Kenya.

The R² indicates that explanatory power of the independent variables is 0.294. This means that 29.4% of the variation in perceived service quality by government ministries in Kenya is explained by Employee innovativeness and the remaining 70.6% of the variation in the dependent variable is unexplained by this one predictor model but by other factors.

Table 4.17: Model Summary Employee innovativeness and Perceived Service Quality

R	R Square	Adjusted R Square	Std. Error of the Estimate
.542	0.294	0.284	0.846

The ANOVA results show that the influence of employee innovativeness on perceived service quality is significant. The p-value of the F-statistic as shown in the ANOVA table is 0.000 which is less the 0.05 implying general significance of the one parameter model thus implying that employee innovativeness significantly influences perceived service quality.

Service firms with a higher level of innovativeness show a significantly higher level of performance than those with a lower level of innovativeness (Lee & Lim, 2009). Innovation is improvement on an existing situation hence as government ministries in Kenya come up with more innovations in service delivery to the public, the quality of service improves.

Table 4.18: ANOVA table Employee innovativeness and Perceived Service Quality

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	21.156	1	21.156	29.543	.000
Residual	50.844	71	0.716		
Total	72	72			

The study results revealed a statistically significant positive linear relationship between employee innovativeness and perceived service quality ($\beta = .542$, p-value = 0.000). The relationship was statistically significant because the p-value is less than 0.05. The resulting regression model that predicts the level of perceived service quality for a given level of Employee innovativeness is given by the equation below:

$$PQS = 0 + 0.542X$$

The model shows that every unit increase in the levels of Employee innovativeness leads to a 0.542 increase in perceived service quality by government ministries in Kenya.

Increased perceived service quality means securing and leveraging know-how about the preferences of the public of Kenya. The More the public perceives services offered by government ministries as quality, the more confidence it will have in the government as a major service provider. Incremental innovations by government ministries may mean for example, increased efficiency balanced with effectiveness, streamlined and synchronized processes and systems, automated responses to standard enquiries, etc. Huduma centres and national examination administration changes taking place in the ministry of education, and the satisfaction being expressed by the public about these changes, are good examples of how increased innovativeness results to increased perceived service quality.

Table 4.19: Coefficients table Employee innovativeness and Perceived Service Quality

Variable	β coefficient	Std. Error	T	P-value.
(Constant)	0.000	0.099	0.000	1
Employee innovativeness	0.542	0.1	5.435	0.000

4.5.3 Bivariate analysis of employee pro-activeness and perceived service quality

The second objective required the researcher to assess the influence of employee pro-activeness on perceived service quality by government ministries in Kenya. Table 4.20 presents a summary of regression model results. The value of R and R² are .511 and 0.261 respectively. This shows that there is a positive linear relationship between Employee pro-activeness and perceived service quality by government ministries in Kenya.

The R² indicates that explanatory power of the independent variables is 0.261. This means that 26.1% of the variation in perceived service quality by government ministries in Kenya is explained by Employee pro-activeness and the remaining 73.9% of the variation in the dependent variable is unexplained by this one predictor model but by other factors.

Table 4.20: Model Summary Employee pro-activeness and Perceived Service Quality

R	R Square	Adjusted R Square	Std. Error of the Estimate
.511	0.261	0.251	0.866

The study used ANOVA to test the overall significance of the model. As shown in the ANOVA table 4.21, the p-value of the F-statistic is 0.000 which is less the 0.05. This implies that the one parameter model is generally significant thus further implying that employee pro-activeness significantly influences perceived service quality.

Proactive employees are anticipatory, change-oriented and self-driven. Such employees are an asset to their organization as they require less or no supervision to do the right thing and they are also beneficial to the people they serve as they render service. A proactive government ministry employee will for example, anticipate power failure at certain times of the day, and increase the speed at which he or she services the public to avoid being caught up by the power failure.

Table 4.21: ANOVA table Employee pro-activeness and Perceived Service Quality

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	18.814	1	18.814	25.116	.000
Residual	53.186	71	0.749		
Total	72	72			

From the Table 4.22, the regression results show that employee pro-activeness had a significant positive influence on the perceived service quality by government ministries in Kenya ($\beta = 0.511$, p-value = 0.000). From the above regression results, the p-value < 0.05 implying significance of the coefficient of employee pro-activeness in the model.

The resulting regression model that predicts the level of perceived service quality for a given level of Employee pro-activeness is given by the equation below:

$$PQS = 0 + 0.511X$$

The model shows that with every unit increase in the levels of Employee pro-activeness there is a 0.511 increase in the levels of perceived service quality by government ministries in Kenya.

Pro-activeness enables a government ministry to look ahead and make long-term decisions. Proactive government ministry employees give the ministries the capacity to determine what the public might need and deliver just that before the public asks for it. The public is hence delighted by the services. The mindset of being in control of situations, in a way that helps a government ministry to anticipate where problems might arise, keeps the ministry one step ahead of the public, thereby increasing perceived service quality. Pro-activeness is crucial for every organization in delivery of long-term quality services.

Table 4.1: Coefficients table: Employee pro-activeness and Perceived Service Quality

Variable	β coefficient	Std. Error	T	P-value.
(Constant)	0.000	0.101	0.000	1.000
Employee pro-activeness	0.511	0.102	5.012	0.000

4.5.4 Bivariate analysis of employee risk taking and perceived service quality

In order to be able to assess the influence that employee risk taking has on perceived service quality by government ministries in Kenya, the study fitted a regression model to determine the significance of the influence. Table 4.23 presents a summary of regression model results. The value of R and R^2 are .381a and 0.145 respectively. This shows that there is a positive linear relationship between Employee risk taking and perceived service quality by government ministries in Kenya.

The R^2 indicates that explanatory power of the independent variables is 0.145. This means that 14.5% of the variation in perceived service quality by government ministries in Kenya is explained by Employee risk taking and the remaining 85.5%

of the variation in the dependent variables is unexplained by this one predictor model but by other factors.

This implies that apart from risk taking, perceived service quality is influence by other factors, that is, employee innovativeness and pro-activeness in this study. In some cases, risk taking is found not to be significant in influencing service performance (Lee & Lim, 2009). However, risk taking is one of the behaviours that enable employees to take advantage of opportunities in rendering better services to the public. It helps government ministries employees to exploit great, unforeseen opportunities that might enable them to serve the public better.

Table 4.2: Model summary Employee risk taking and Perceived Service Quality

R	R Square	Adjusted R Square	Std. Error of the Estimate
.381	0.145	0.133	0.931

The ANOVA results show that the influence of employee risk taking on perceived service quality is significant. The p-value of the F-statistic as shown in the ANOVA table is 0.000 which is less the 0.05 implying general significance of the one parameter model thus implying that employee risk taking significantly influences perceived service quality.

Government ministries’ employees’ risk taking propensity does not only exert a direct influence over perceived service quality, but also an effect in creating and maintaining a particular facet of the government ministries’ climate that helps employees to have courage and confidence in dealing with situations that are not certain but which contribute to service efficiency. Embracing risk taking helps government ministries’ employees to overcome fear of failure and stand out. Apart from the possibility of rendering quality services to the public that the risk taking behaviour might present, the confident disposition that the employee accrues from risk taking behaviour, improves the public’s perception of the services rendered. If for example, a doctor at Kenyatta National hospital attends to a critically ill patient

knowing their inability to pay for the medical services, it leaves the doctor more confident to make delicate decisions and the patient more satisfied and positive about the services at Kenyatta National Hospital.

Table 4.3: ANOVA table Employee risk taking and Perceived Service Quality

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	10.456	1	10.456	12.063	.001
Residual	61.544	71	0.867		
Total	72	72			

The regression results revealed that employee risk taking has a significant positive influence on perceived service quality by government ministries in Kenya ($\beta=0.381$, $p\text{-value}=0.00088$) the $p\text{-value}$ of the coefficient of employee risk taking is less of 0.05. The resulting regression model that predicts the level of perceived service quality for a given level of Employee risk taking is given by the equation below:

$$PQS = 0 + 0.381X$$

The model shows that every unit increase in the levels of Employee risk taking leads to a 0.381 increase in perceived service quality by government ministries in Kenya.

Employee risk taking represents a willingness to withstand uncertainty and mistakes as one explores new ideas, advocates unconventional or unpopular positions, or handles extremely challenging problems without obvious solutions, in order to increase the likelihood of accomplishment. As government ministries' employees therefore prudently take risk more and more in the daily discharge of their duties, the public will increasingly perceive services rendered by them as different and better.

Table 4.4: Coefficients table Employee risk taking and Perceived Service Quality

Variable	β coefficient	Std. Error	T	P-value.
(Constant)	0.000	0.109	0.000	1
Employee risk taking	0.381	0.11	3.473	0.00088

4.5.5 Combined effect Model of Employee behaviour and Perceived Service Quality

To assess the combined effect of employee entrepreneurial behaviour on perceived service quality by government ministries in Kenya, the study carried out a multiple linear regression analysis. The analysis involved the fitting an ordinary least squares (OLS) model with the independent variables; employee innovativeness, employee pro-activeness and employee risk taking as predictors and the variable perceived service quality as the predicted dependent variable. The results of the multiple regression were used to test the hypotheses and draw conclusions on the objectives of the study.

OLS model fitting are based on assumptions of normality of the residuals, non-autocorrelation of the residuals, homoscedasticity of the residuals and non-multicollinearity of the predictors. The fitted model was therefore tested to ensure it met the assumptions of OLS estimation.

4.5.5.1 Normality Assumption of the residuals

The regression model was fit based on the assumptions that the residuals follow a normal distribution. The figure 4.1Is a histogram of the residuals that shows a virtual indication of a plausible normal distribution curve. The curve dose not seem skewed to either side implying a normal distribution with a mean of 0.000 and a standard deviation of 0.979.

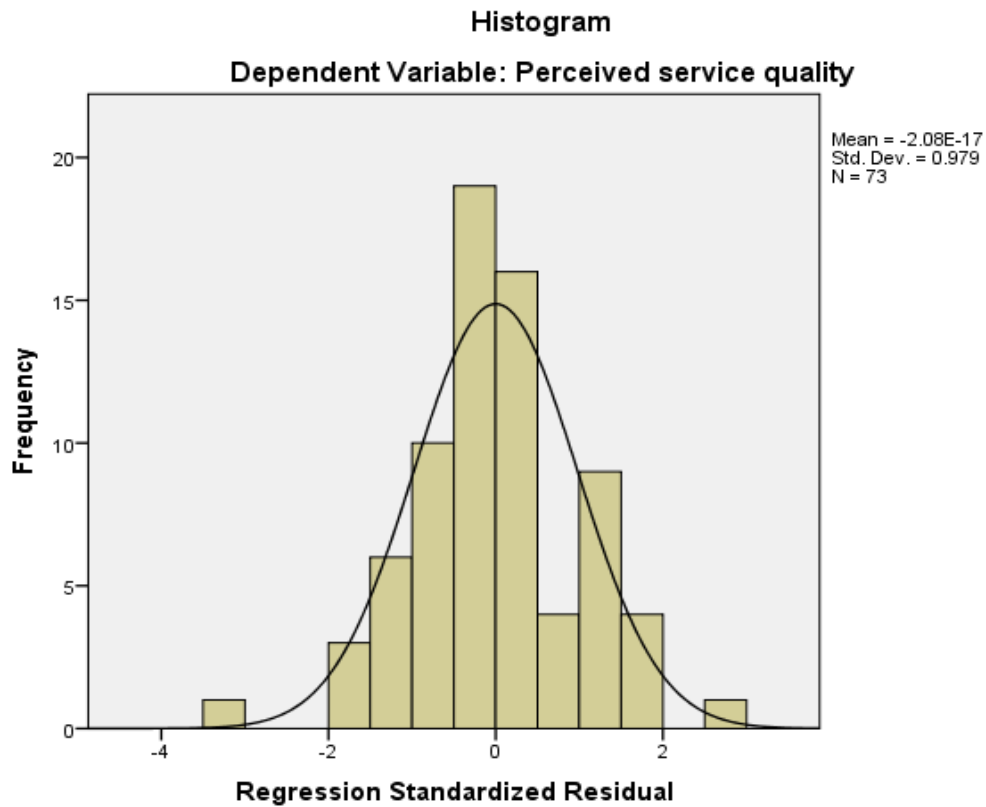


Figure 4.1: Histogram of the model residuals

For further normality test, the researcher performed a test to confirm normality of the residuals with statistical significance as shown in table 4.26 The Shapiro-Wilk statistic has a p-value of which is greater than 0.05. This implies that the residuals follow a normal distribution as assumed by OLS.

Table 4.5: Normality test on residuals

	Shapiro-Wilk Statistic	Df	Sig.
Standardized Residual	0.972	72	0.107

4.5.5.2 Assumption of Non-Autocorrelation of the residuals

The fitted OLS multiple regression model is based on the assumption that the residuals are not auto-correlated. If the regression model violates the assumption of no autocorrelation then the predictors may be significant even though the model will have underestimated the standard errors of the predictors. The Durbin Watson value is 2.305, the upper limit for 4 predictors including the constant is 1.557 and the lower limit is 1.395. 2.305 is higher than the upper limit so we conclude that the residuals are not auto correlated.

Table 4.6: Autocorrelation test of the residuals

Durbin-Watson statistic	Tabulated lower limit	Tabulated Upper limit
2.305	1.395	1.557

4.5.5.3 Assumption of residuals Homoscedasticity

Fitting an OLS model also assumes that the residual terms have a constant variance and are referred to as homoscedastic. A variable with non-constant variance is termed heteroscedastic. Adoption of the OLS model requires the residual terms to not to be heteroscedastic but to be homoscedastic. A virtual indication of the distribution of the residuals about is shown in the scatterplot of the residuals against the predicted values. The indication on the plot does not show a pattern of an increasing or decreasing function, this is a virtual implication that the residuals are homoscedastic.

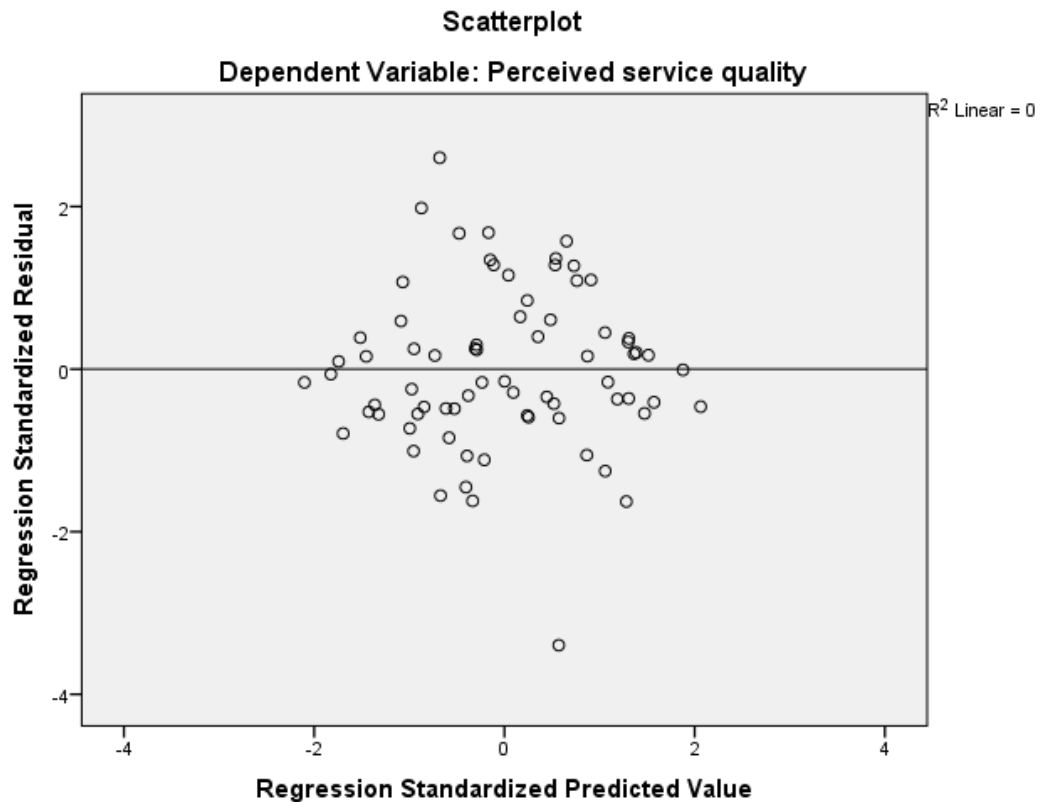


Figure 4.2: Scatter plot for the combined effect model residuals

A Breuch-pagan test was performed on the residual terms of the overall model to test with statistical significance the existence of either hetero or homoscedasticity. It tests the null hypothesis that there is a constant variance of the residual terms form an OLS regression where a small p-value of the Chis-square indicates Heteroscedasticity. Table 4.presents the results of the homoscedasticity test on the residuals of the overall regression model. From the results the P-value of the Chi-square statistic is 0.847 thus we fail to reject the null hypothesis and conclude that the error terms exhibit homoscedasticity.

Table 4.7: Heteroscedasticity test of the residuals

	Breusch-Pagan statistic	P-value	Conclusion
Residuals	0.809	0.847	Fail to reject H_0

4.5.5.4 Non-Multicollinearity assumption of the model predictors

The fitted OLS model assumed that the independent variables are not multicollinear. Multicollinearity is exhibited if one or more independent variables can be expressed in terms of the other independent variables. That would imply that the predictors are not truly independent of each other as assumed by fitting the OLS model. According to Mugenda (2008), multicollinearity can occur in multiple regression models in which some of the independent variables are significantly correlated among themselves.

The fitted model was tested for multicollinearity as shown in table 4.29 If a predictor has a tolerance less than 0.2 implies that the predictor shares more than 80% of its variance with another predictor in the model. To confirm that there was non-multicollinearity in the model, all the independent variables were shown to have tolerances above 0.2 and VIF below 5.

Table 4.8: Multicollinearity test of the model predictors

	Tolerance	VIF
Employee innovativeness	0.976	1.025
Employee pro-activeness	0.963	1.038
Employee risk taking	0.985	1.015

4.5.5.5 Multiple regression of Employee behaviour and Perceived Service Quality

Table 4.30 presents a summary of regression model results. The value of R and R² are .761 and 0.579 respectively. This shows that there is a positive linear relationship between Employee behaviour and perceived service quality by government ministries in Kenya.

The R² indicates that explanatory power of the independent variables is 0.579. This means that 57.9% of the variation in perceived service quality by government ministries in Kenya is explained by Employee behaviour and the remaining 42.1% of the variation in the dependent variable is unexplained by this one predictor model but by other factors.

Table 4.9: Model Summary multiple regression

R	R Square	Adjusted R Square	Std. Error of the Estimate
.761a	.579	.561	.662

The study used ANOVA to test the overall significance of the multiple regression OLS model model. As shown in the ANOVA table 4.31 , the p-value of the F-statistic is 0.000 which is less the 0.05. This implies that at least one of the parameters in model is not equal to zero implying that the model is generally significant thus further implying that employee behaviour significantly influences perceived service quality.

Table 4.10: ANOVA table multiple regression

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	41.722	3	13.907	31.694	.000b
Residual	30.278	69	.439		
Total	72.000	72			

The regression results revealed that all the independent variables in the model have a significant positive influence on perceived service quality by government ministries in Kenya. The coefficients of the variables employee innovativeness, employee innovativeness and employee risk taking were estimated to be $\beta_1=0.459$, $\beta_2=0.394$ and $\beta_3=0.326$ respectively with t statistics 5.820, 4.976 and 4.153 respectively. The p-values of the T statistics for all the variables were found to be 0.000 which are less than 0.05. The resulting regression model that predicts the level of perceived service quality is significantly influenced by all the independent variables jointly is given by the equation below:

$$PSQ = 0.459X_1 + 0.394X_2 + 0.326X_3$$

Table 4.11: Coefficients table Multiple regression

Variable	β coefficient	Std. Error	T	P-value.
(Constant)	-0.013	0.078	-0.165	0.869
Employee innovativeness	0.459	0.079	5.820	0.000
Employee pro-activeness	0.394	0.079	4.976	0.000
Employee risk taking	0.326	0.078	4.153	0.000

H₀₁: *Employee innovativeness has no significant influence on perceived service quality by government ministries in Kenya.*

The p-value of the t-statistic for this variable was found to be 0.000 which is less than 0.05. The null hypothesis was rejected and an alternative taken to conclude that Employee innovativeness has a significant influence on perceived service quality by government ministries in Kenya.

H₀₂: *Employee pro-activeness has no significant influence on perceived service quality by government ministries in Kenya.*

The p-value of the t-statistic for this variable was found to be 0.000 which is less than 0.05. The null hypothesis was rejected and an alternative taken to conclude that

Employee pro-activeness has a significant influence on perceived service quality by government ministries in Kenya.

H₀₃: Employee risk taking has no significant influence on perceived service quality by government ministries in Kenya.

The p-value of the t-statistic for this variable was found to be 0.000 which is less than 0.05. The null hypothesis was rejected and an alternative taken to conclude that Employee risk taking has a significant influence on perceived service quality by government ministries in Kenya.

4.5.6 Moderating effect of work environment

Drawing conclusions on the objective regarding the moderating effect of Work environment on the relationship between entrepreneurial behaviour and perceived service quality by government ministries in Kenya, the moderated multiple regression model was adopted. This model involved generating a transformation variable as an interaction variable between Work environment and entrepreneurial behaviour. The interaction variables were generated as intersections between the independent variables and Work environment and the interaction variables used in the hierarchical moderated multiple regressions.

The model was fitted adding the interaction variables of the moderator and other independent variables. As shown in table 4.33, this step of the MMR modeling had an R-square of 0.927 implying that the variation in perceived service quality explained in the model is 92.7%. This model is an improvement of the first model with a significant positive change in the R-square. The change in R-square for model three is 0.285 which is significant as shown by the P-value of the F-change which was found to be less than 0.05. The p-value of the F-change is 0.000.

Table 4.12: Model Summary moderated multiple regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df 1	df 2	Sig. F Change
1	.761a	0.579	0.561	0.662	0.579	31.694	3	6	0.000
2	.801b	0.642	0.621	0.616	0.063	11.900	1	6	0.001
3	.963c	0.927	0.919	0.285	0.285	84.013	3	6	0.000

The ANOVA for the moderating effect model is presented in table 4.34. The ANOVA shows that the model is significant. The p-value of the F-statistic is 0.000 which is less than 0.05 implying that at 0.05 level of significance, the parameter coefficients of the interaction variables are not all jointly equal to zero. This further implies that the interaction between entrepreneurial behavior and work environment have a significant influence on perceived service quality thus there is a moderating effect of work environment on the relationship between entrepreneurial behavior and perceived service quality.

Table 4.13: ANOVA table moderated multiple regression

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	46.232	4.000	11.558	30.501	.000c
Residual	25.768	68.000	0.379		
Total	72.000	72.000			

Table 4.35 is the coefficients table that shows the estimated parameters of the MMR model. The coefficients of the interaction variables between work environment and employee innovativeness, employee innovativeness and employee risk taking were estimated to be $\beta_1=0.727$, $\beta_2=0.104$ and $\beta_3=0.071$ respectively with t statistics 7.134, 2.879 and 1.968 respectively. The p-values of the t statistics for the interactions between work environment and employee innovativeness and that between work

environment and employee pro-activeness were found to be 0.000 and 0.05 respectively which are less than 0.05. This implies that there is a significant moderating effect of work environment on the relationship between perceived service quality and the two independent variables. The p-value of the interaction variable between work environment and employee risk taking was found to be 0.053 which is greater than 0.05 implying that work environment does not significantly influence the relationship between Employee risk taking and perceived firm performance but has a significant moderating effect of work environment on the relationship between perceived service quality and employee innovativeness and employee pro-activeness. The moderated multiple regression model generated an equation given by:

$$Y = 0.727X_1 * Z + 0.104X_2 * Z + 0.071X_3 * Z$$

Table 4.14: Coefficients table Moderated Multiple regression

Variable	β coefficient t	Std. Error	t	P- value.
(Constant)	-0.000	0.078	-0.000	1.000
Employee innovativeness intersection Work environment	.727	.102	7.134	.000
Employee pro-activeness intersection Work environment	.104	.036	2.879	.005
Employee risk taking intersection Work environment	.071	.036	1.968	.053

H₀₄ *Work environment has no significant mediating influence on the relationship between entrepreneurial behaviour and perceived service quality in government ministries in Kenya.*

The P-value of the F-change statistic of the 3rd model was 0.000 which is less than 0.05. This means that the positive change in R-square due to inclusion of the interaction variables of work environment and employee behaviour significant implying that the model is significantly improved by the increase in R². The null hypothesis was thus rejected and the alternative taken to conclude that employee behaviour significantly influences the relationship between employee behaviour and perceived service quality.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary discussion of the study results, conclusions and the recommendations made from the findings of the study. The chapter also highlights the limitations of the study and suggestions for further research.

5.2 Summary of the Study Findings

Specific Objective1: Establish the Relationship between Employee Innovativeness and Perceived Service Quality

The results from the study showed that the correlation coefficient of employee innovativeness and perceived service quality was found to be 0.542 and is significant. This is the same value of the bivariate regression significant coefficient on the influence of employee innovativeness on perceived service quality. The beta estimate of the coefficient of employee innovativeness on the joint multivariate model was found to be 0.459. This is the influence of employee innovativeness on perceived service quality considering the joint effect with other factors on perceived service quality included in this study. Kandampully (2002) argues that innovations in services is the result of the energy that organizations spend on thinking like the customer, and hence the innovation efforts will result in the formation of a customer value. When employees in government ministries render services to the public in a different and pleasing manner, the public will be delighted and perceive the service delivered more positively. If a front office employee of a government ministry thanks a visitor for calling in at the ministry and expresses hope to see them again, the visitor will be delighted and will view the service as warm and pleasing.

Specific Objective 2: Examine the Influence of Employee Pro-activeness and Perceived Service Quality

For the second objective, the results from the study showed that the correlation coefficient of employee pro-activeness and perceived service quality was found to be 0.511. This is the same value of the bivariate regression significant coefficient on the influence of employee pro-activeness on perceived service quality. The beta estimate of the coefficient of employee pro-activeness on the joint multivariate model was found to be 0.394. This is the influence of employee pro-activeness on perceived service quality considering the joint effect with other factors perceived service quality included in this study. The results of the study revealed that employee pro-activeness had a statistically significant and positive influence on perceived service quality by government ministries in Kenya ($p < 0.05$). This shows that as employee proactiveness increases the quality of the perceived service by government ministries in Kenya also increases.

Self-starting proactive behavior is increasingly important in the today's work context. The pressure for innovation means that employees need to be willing to make suggestions, try new ways of doing things, and take responsibility for bringing about change. There is accumulating evidence of the value of proactive behavior within today's workplace. In a study of real estate agents, Crant (1995) showed that proactive agents are likely to sell more houses, obtain more listings, and gain higher commission incomes ($\beta = .31, p < .01$). Freese and Fay, 2001 state that small enterprise owners' proactivity is positively related with firm success.

However, despite the evidence that shows that proactive employee behaviour generally leads to desirable consequences for the organization, in some cases proactive behaviour may also harm an organization's competitiveness and effectiveness. This might especially happen if organizations learn to rely too heavily on employees' proactivity and take their proactive behaviour as a substitute for institutionalized organizational practices. Bolino et al. (2010) explicitly focus on the 'dark side' of proactivity. They propose several negative implications for employees, and for the firm as a whole, in always expecting employees to behave proactively.

Specifically they argue that proactive behaviours may contribute to employee stress, increase tension between employees, and even harm the entire organization by reducing its learning capability, hindering socialization processes, and diminishing its ability to develop leaders. In one of the first publications on proactivity, Bateman and Crant (1993) argued that ‘misguided’ proactive behaviour may lead to undesirable outcomes.

Specific Objective 3: Evaluate the Relationship between Employee Risk Taking and Perceived Service Quality

The correlation coefficient of employee risk taking and perceived service quality was found to be 0.381 and is significant. This is the same value of the bivariate regression significant coefficient on the influence of employee risk taking on perceived service quality. The beta estimate of the coefficient of employee risk taking on the joint multivariate model was found to be 0.459. This is the influence of employee risk taking on perceived service quality considering the joint effect with other factors perceived service quality included in this study.

The relationship between employee risk taking and perceived service quality by government ministries in Kenya was found to be statistically significant and positive. This is because the p-value is less than the set value of 0.05 ($p - \text{value} = 0.000$).

While risk taking behaviour is considered a positive attribute for employees, not all employee risk taking behaviour results in positive outcome. This is because risk taking is about probability, meaning an employee’s entrepreneurial behaviour may result into the desired outcome or may at the same time fail to achieve the desired results. This means therefore that it is advisable to undertake moderate risk-taking. It may also result to variations in service delivery since some risk taking behaviour may fail while in other instances what was intended may be achieved.

Llopis et al. (2013) in their study, ‘Managing’ risk taking propensity and innovation in organizations: the mediating influence of employees’ perceived risk taking climate’, quote Gilson et al (2004) and Yuan et al (2010) that where risk taking is

encouraged employees' behaviors towards innovation can be influenced thus, benefiting the organizations overall performance.

Specific Objective 4: Assess the Moderating Influence of Work Environment on the Relationship between Entrepreneurial Behaviour and Perceived Service Quality

The results on the moderating influence showed that there was a significant change in R^2 by 0.285 from the original model to the model including the interaction variables between work environment and employee behavior. The interaction variable between employee innovativeness and work environment was found to be significant in this model with a beta coefficient of 0.727 while interaction between employee pro-activeness and work environment was also significant with a beta coefficient of 0.104. The interaction between employee risks taking intersection work environment was insignificant.

On overall the study results show that work environment has a moderating influence of on the relationship between entrepreneurial behaviour and perceived service quality by government ministries in Kenya.

The business environment is becoming more and more complex and competitive. The current customer is more knowledgeable and complex than that of yesterday. Organizations are now therefore, under so much pressure to deliver what the customer wants so as to retain them. It is on this understanding that organizations, both private and public are creating organizational environment that encourages employees to adopt an entrepreneurial attitude that enables them to be innovative, proactive and risk taking in the discharge of their day-to-day work and thereby help to deliver quality services to their customers.

Covin and Lumpkin (2011) concede that entrepreneurial attributes that are present in entrepreneurial behaviour are related to business dimensions such as culture, atmosphere, and organizational behaviour as the dominating logic.

5.3 Conclusions of the study

Specific Objective1: Establish the Relationship between Employee Innovativeness and Perceived Service Quality

Based on the results obtained from the results of the study, the study concluded that there was a relationship between employee innovativeness and perceived service quality by government ministries in Kenya and the relationship was positive and statistically significant ($p < 0.05$). This means that government ministries should make efforts to encourage employee innovations because as it has been found by this study that employee innovativeness has a positive effect on perceived service quality by government ministries in Kenya.

Specific Objective 2: Examine the Influence of Employee Pro-activeness and Perceived Service Quality

The study also concludes that there is an influence of employee pro-activeness on perceived service quality by government ministries in Kenya because it was found to have a statistically significant coefficient on the model of the influence of employee behavior and perceive service quality. Hence the government ministries should encourage employee innovations because it has been found by this study that employee proactiveness has a positive effect on perceived service quality by government ministries in Kenya.

Specific Objective 3: Evaluate the Relationship between Employee Risk Taking Perceived Service Quality

The study found out that employee risk taking had a statistically significant and positive influence on perceived service quality by government ministries in Kenya hence concluded that employee risk taking had significant and positive influence on perceived service quality by government ministries in Kenya.

Specific Objective 4: Assess the Moderating Influence of Work Environment on the Relationship between Entrepreneurial Behaviour and Perceived Service Quality

The study concluded that work environment had statistically significant moderating influence on the relationship between entrepreneurial behaviour and perceived service quality in government ministries in Kenya. This conclusion was drawn based on the fact that introducing interaction effect of the moderating variable on the entrepreneurial behaviour variables significantly improves the explanatory power of the model for the better. The interaction variables between work environment and entrepreneurial behaviour were also found to have significant coefficients in the model. There is therefore need for government ministries to consider creating a work environment that fosters entrepreneurial behaviour because it has been found to have statistically significant moderating influence on the relationship between entrepreneurial behaviour and perceived service quality in government ministries in Kenya. Since work culture and nature of work both had statistically significant effect on the relationship between entrepreneurial behaviour and perceived service quality by government ministries in Kenya, there is need for the government to inculcate values, beliefs and perceptions, and redesign work in government ministries that would enhance adoption of entrepreneurial behaviour among the employees. Employees conceive the climate of the organization as a source of specific cues about how to behave. Those cues are used as guidelines to behave in the organization (Ashkanasy *et al.*, 2000) and therefore, help to exhibit or inhibit certain behaviors in the organizational setting.

5.4 Recommendations from the study

Based on the findings and conclusions of the study, the following recommendations were made:

1. Based on the study results, the study recommends that government ministries should encourage employee innovativeness because it has been found by this study that employee innovativeness has a positive effect on perceived service quality by government ministries in Kenya. Innovative employees become more engaged in their positions and will hence help their ministry to meet unarticulated service needs of the public thereby helping to create and sustain a positive perception of ministry services of ministry services by the public.
2. The study recommends that the government ministries in Kenya should strive to encourage proactive behaviour among government employees because it has been found to have a significant and positive effect on perceived service quality by government ministries in Kenya. Most organizations nowadays expect their employees to do their work not only competently but also proactively. Government ministries employees and the ministries alike should be aware of the potential advantages and benefits, but also the potential dangers that come with proactive behaviour. Well-understood and well-managed proactivity can yield benefits for both the ministries and employees.
3. Based on the fact that in this study, employee risk taking had a statistically significant and positive influence on perceived service quality by government ministries in Kenya, the researcher recommends that, government ministries should foster risk taking behaviour among its employees.

The government should appreciate that business organizations that have an entrepreneurial orientation are characterized by risk-taking behaviour, which, if well managed, results exploitation of opportunities that enhance service delivery thereby improving the public's perception of government ministries' service delivery.

4. This study found work environment to have statistically significant moderating influence on the relationship between entrepreneurial behaviour and perceived service quality in government ministries in Kenya. The researcher therefore, recommends that government ministries view the work environment as a key contributor to the quality of services rendered by its employees, and hence strive to modify the culture and the nature of work undertaken by these ministries to enhance and accommodate employee innovative, proactive and risk-taking behaviours.

5.5 Suggestions for Further Research

While this study produced meaningful results, it was subject to several limitations which in turn provide avenues for further research. The study therefore suggests further study on the private sector since this study concentrated mainly on government ministries. The study also did not come up with a way of combining the various forms of entrepreneurial behaviour or an-entrepreneurial behaviour mix for the employees. It is on the above bases that this study recommends further studies to establish an optimum point or the entrepreneurial behaviour index for perceived service quality by government ministries in Kenya.

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APPENDICES

Appendix I: Questionnaire

SECTION 1: WORK ENVIRONMENT

Part A: Work culture and nature of work in the ministry

Please, indicate with a tick the extent to which the following apply to the moderating factors of your ministry.

	5	4	3	2	1
Work Culture	To a very great extent	To a great extent	To a moderate extent	To a small extent	Not at all
The work culture of my ministry encourages employee innovation					
The ministry has enough employees to achieve service quality delivery					
The work culture of this ministry cannot allow employee pro-activity.					
<p>If your response to (i) and (iii) is 4 or 5, give an explanation</p> <p>i)</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>ii)</p> <p>.....</p> <p>.....</p>					

<p>.....</p> <p>.....</p> <p>.....</p>					
Nature of Work					
The nature of work in my ministry allows employees to make their own decisions about how to schedule their work					
The work allows employees to make decisions about what methods to use to complete their work.					
The work involves a great deal of task variety.					
The work performed on the job has a significant impact on people outside the ministry.					
The work involves completing a piece of work that has an obvious beginning and end.					
The work activities themselves provide direct and clear information about the effectiveness (e.g., quality and quantity) of an employee's job performance.					
The work requires that an employee engages in a large amount of thinking.					
The work involves solving problems that have no obvious correct answer.					
The work requires employees to utilize a variety of different skills in order to complete the work.					
<p>Explain your response to question (i), (ii) and (iii). You could use a separate sheet of paper and attach it to the questionnaire if the space provided below is not adequate.</p> <p>i)</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>					

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ii)

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iii)

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Overall, on a scale of 1 to 5 where 5 is the score of the best description of nature of work and the size of the ministry, 1 would give our ministry a score of -----

SECTION 2: ENTREPRENUARAL BEHAVIOUR

Part A; Employee innovativeness

Please, indicate with a tick the extent to which the following employee creativity and innovativeness apply to your ministry.

	5	4	3	2	1
Employee innovativeness	To a very great extent	To a great extent	To a moderate extent	To a small extent	Not at all
Employees in my ministry are allowed to suggest new and better ways of serving the public.					
The ministry encourages employee innovativeness.					
My ministry is quick to use new methods.					
In my ministry, developing one's own ideas is encouraged for the improvement of the public sector.					
Senior Public Officers in my ministry are aware and very receptive to employees ideas and suggestions from employees.					
Promotion, salary increment, or commendation usually follows the development of new and innovative ideas.					
Money is often available to get new project ideas off the ground.					

<p>Individuals with successful innovative projects receive additional reward and compensation for their ideas and efforts beyond the standard reward system.</p>					
<p>Senior managers encourage innovators to bend rules and rigid procedures in order to keep promising ideas on track.</p>					
<p>Explain your response to (ii) and (iv)</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>					
<p>Overall, on a scale of 1 to 5 where 5 is the score of the best employee creativity and innovativeness, 1 would give our ministry a score of -----</p>					

Part B: Employee pro-activeness

Please, indicate your level of agreement or disagreement with the following aspects relating to employee pro-activeness in your ministry (insert a tick in the appropriate box).

	5	4	3	2	1
Employee pro-activeness	Strongly agree	Agree	Indifferent	Disagree	Strongly disagree
This ministry allows employees the freedom to be their own boss.					
Harsh criticism and punishment of employees result from mistakes made on the job.					
This ministry provides employees the chance to be creative and try their own methods of doing their job.					
The ministry provides employees the freedom to use their own judgment.					
This ministry provides every employee with the chance to do something that makes use of their abilities.					
Employees have the freedom to decide what they need to do on their job.					
It is basically employees' own responsibility to decide how their job gets done.					
Employees almost always get to decide what they					

do on their job.					
Employees have much autonomy on their job and they are left on their own to do their own work.					
<p>Explain your response to (i)</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>If your response to (ix) is 4 or 5 give an explanation.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>..</p> <p>Overall, on a scale of 1 to 5 where 5 is the score of the most preferred employee pro-activeness, I would give our ministry a score of -----</p>					

Part C: Employee risk taking

Please, indicate with a tick the extent to which the following employee risk taking is important to your ministry.

Employee risk taking	5	4	3	2	1
	Very important	Fairly important	Somewhat important	Not So important	Not at all important
Individual risk takers are often recognized for their willingness to champion new projects, whether eventually successful or not.					
Employees in my ministry are often encouraged to take calculated risks with new ideas around here.					
The term “risk taker” is considered a positive attribute for employees in my ministry.					
This ministry supports many small and experimental projects realizing that some will undoubtedly fail.					
My supervisor will give me special recognition if my work performance is especially good.					
An employee with a good idea is often given free time to develop that idea.					
There is considerable desire among employees in the ministry for generating new ideas without regard to					

crossing departmental or functional boundaries.					
Employees are encouraged to talk to workers in other departments of this ministry about ideas for new projects					
There is a lot of challenge in my job.					

If your response to (iii) is 4 or 5 explain

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Explain your response to (ix)

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Overall, on a scale of 1 to 5 where 5 is the highest score of the employee risk taking, 1 would give my ministry a score of -----

SECTION 3: PERCEIVED SERVICE QUALITY

Part A: Service Quality

1. By ticking the section that best describes your opinion, evaluate the level of service quality of your ministry.

	5	4	3	2	1
Service Quality	Very important	Fairly important	Somewhat important	Not So important	Not at all important
Tangibility					
i. The public is usually impressed by the physical appearance of my ministry's work environment and the staff.					
ii. My ministry employs modern equipment and technology in delivery of services to the public.					
iii. The communication materials used by my ministry are up to date.					

Explain your response to i, ii and iii

i.

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ii.

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iii

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Reliability

i. My ministry is known for prompt service delivery.					
ii. There is consistency in service delivery by my ministry.					

<p>iii. If asked, the public would recommend my ministry as the best service provider as far as accuracy in service delivery is concerned.</p>					
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Explain your response to i, ii and iii

i)

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ii)

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iii)

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Responsiveness

<p>i. Employees in my ministry are always willing to assist and give prompt attention to requests and question from the public.</p>					
<p>ii. My ministry has been known to offer solutions to problems experienced by the public as far as service delivery is concerned.</p>					
<p>iii. Employees in my ministry are flexible in their approach to service delivery.</p>					

Explain your response to i, ii and iii

i.

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ii.

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iii.

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Assurance					
i. Employees in my ministry exercise competence in service delivery to the public.					
ii. The public acknowledges it feels safe and secure in its transaction with					

my ministry.					
iii. Employees in my ministry exercise high probity and confidentiality in their service delivery to the public.					

Explain your response to i, ii and iii.

i.

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ii.

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iii.

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Empathy					
i. My ministry ensures that the services it offers are appropriate for the stakeholders					
ii. Communication in my ministry is clear, appropriate and timely.					
iii. The public is able to access employees, services and information in my ministry without much problem.					
<p>Explain your response to i, ii and iii.</p> <p>i.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>ii.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>					

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iii.

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Overall, on a scale of 1 to 5 where 5 is the score of the most important, when rating quality in service delivery, 1 would give our ministry a score of -----

Appendix II: Interview Guide

Name (Optional).....Ministry

Position:..... length of Service

1. What measures has your ministry put in place to encourage employee innovativeness?
2. How do employees in your ministry respond to these measures?
3. Explain work tasks in your ministry in which employees are encouraged to use their own initiative to make decisions.
4. Describe the kind of employee supervision that your ministry employs.
5. Explain an incident in your ministry when an employee made a mistake in the course of trying out a new idea and the ministry management took it positively.
6. Explain any task in your ministry that may call for an employee to take a risk to accomplish.
7. Give a description of the work culture in your ministry and explain how, in your view, this culture influences employee delivery of quality services to the public.
8. Explain the nature of work undertaken by your ministry and how you think it influences employee entrepreneurial behaviour.

Appendix III: Observation Guide

This observation guide was used to facilitate observation of the study variables; work environment, Employee innovativeness, employee pro-activeness, employee risk taking and perceived service quality.

OBSERVATION GUIDE		
Observer	Date Of Observation	Duration Of Observation
Fanice Junge Nafula	May, June, July, 2016	10 Hours Per Month
<p>Part I: Observing Work Culture</p> <ol style="list-style-type: none"> 1. Describe the number of employee seen. 2. Draw or describe the workplace arrangement. 3. Write the ministry vision, mission and core values. 4. Describe employees' responsibilities. 5. Explain how supervisors communicate with employees 		
<p>Part II: Observing Nature of Work</p> <ol style="list-style-type: none"> 1. Describe the tasks being carried out by employees. 2. Describe the nature of supervision. 3. Explain whether there is variety of tasks carried out by employees. 4. Explain the level of clarity of tasks. 5. Describe the skills that employees employ to accomplish their tasks. 		
<p>Part III: Observing Employee Innovativeness</p> <ol style="list-style-type: none"> 1. Describe the employee-supervisor relationship. 2. Explain the flexibility with which employees undertake their tasks. 3. Explain whether employees are allowed to give any suggestions to their supervisors regarding their work. 4. Explain whether employees are provided with the resources they require to accomplish assigned tasks. 		

5. Describe how supervisors show appreciation of suggestions and ideas put forward by employees.

Part IV: Observing Employee Pro-activeness

1. Explain how freely employees are allowed to work on their own.
2. Describe the nature of punishment employees are subjected to when they make mistakes.
3. Explain whether employees are allowed to use a variety of approaches in accomplishing their tasks.
4. Describe the type of decisions employees make while on the job.
5. Describe the nature of supervision.

Part V: Observing Employee Risk-taking Propensity

1. Explain whether any observed employee initiative.
2. Describe the reaction of the supervisor when employees make mistakes.
3. Explain whether the ministry supports projects initiated by employees.
4. Explain whether employees have a desire to come up with new ways of undertaking their tasks.
5. Describe the challenges employees encounter in the course of carrying out their tasks.

Part VI: Observing Perceived Service Quality

1. Describe the physical appearance of the workplace.
2. Explain the consistency of the services offered to the public .
3. Describe the willingness of employees to assist members of the public.
4. Explain the competence with which services are delivered to the public.
5. Describe the clarity with which information is communicated.

Appendix IV: Factor loadings matrix

Variable	Component				
	1	2	3	4	5
Employees in my ministry are allowed to suggest new and better ways of serving the public.	0.899				
The ministry encourages employee innovativeness.	0.900				
My ministry is quick to use new methods.	0.917				
In my ministry, developing one's own ideas is encouraged for the improvement of the public sector.	0.910				
Senior Public Officers in my ministry are aware and very receptive to employees ideas and suggestions from employees.	0.927				
Promotion, salary increment, or commendation usually follows the development of new and innovative ideas.	0.895				
Money is often available to get new project ideas off the ground.	0.922				
Individuals with successful innovative projects receive additional reward and compensation for their ideas and efforts beyond the standard reward system.	0.895				
Senior managers encourage innovators to bend rules and rigid procedures in order to keep promising ideas on track.	0.508				
This ministry allows employees the freedom to be their own boss.		0.894			
Harsh criticism and punishment of employees result from mistakes made on the job.		0.929			
This ministry provides employees the chance to be creative and try their own		0.910			

methods of doing their job.	
The ministry provides employees the freedom to use their own judgment.	0.911
This ministry provides every employee with the chance to do something that makes use of their abilities.	0.927
Employees have the freedom to decide what they need to do on their job.	0.911
It is basically employees' own responsibility to decide how their job gets done.	0.907
Employees almost always get to decide what they do on their job.	0.875
Employees have much autonomy on their job and they are left on their own to do their own work.	0.512
Individual risk takers are often recognized for their willingness to champion new projects, whether eventually successful or not.	0.913
Employees in my ministry are often encouraged to take calculated risks with new ideas around here.	0.919
The term "risk taker" is considered a positive attribute for employees in my ministry.	0.873
This ministry supports many small and experimental projects realizing that some will undoubtedly fail.	0.937
My supervisor will give me special recognition if my work performance is especially good.	0.927
An employee with a good idea is often given free time to develop that idea.	0.904
There is considerable desire among employees in the ministry for generating new ideas without regard to crossing departmental or functional boundaries.	0.928

Employees are encouraged to talk to workers in other departments of this ministry about ideas for new projects	0.901	
There is a lot of challenge in my job.	0.473	
The work culture of my ministry encourages employee innovation		0.845
The ministry has enough employees to achieve service quality delivery		0.865
The work culture of this ministry cannot allow employee pro-activity.		0.892
The nature of work in my ministry allows employees to make their own decisions about how to schedule their work		0.827
The work allows employees to make decisions about what methods to use to complete their work.		0.853
The work involves a great deal of task variety.		0.788
The work performed on the job has a significant impact on people outside the ministry.		0.873
The work involves completing a piece of work that has an obvious beginning and end.		0.802
The work activities themselves provide direct and clear information about the effectiveness (e.g., quality and quantity) of an employee's job performance.		0.853
The work requires that an employee engages in a large amount of thinking.		0.846
The work involves solving problems that have no obvious correct answer.		0.869
The work requires employees to utilize a variety of different skills in order to complete the work.		0.839
The public is usually impressed		0.880

by the physical appearance of my ministry's work environment and the staff.	
My ministry employs modern equipment and technology in delivery of services to the public.	0.919
The communication materials used by my ministry are upto date.	0.846
My ministry is known for prompt service delivery.	0.852
There is consistency in service delivery by my ministry.	0.909
If asked, the public would recommend my ministry as the best service provider as far as accuracy in service delivery is concerned.	0.838
Employees in my ministry are always willing to assist and give prompt attention to requests and question from the public.	0.898
My ministry has been known to offer solutions to problems experienced by the public as far as service delivery is concerned.	0.905
Employees in my ministry are flexible in their approach to service delivery.	0.901
Employees in my ministry exercise competence in service delivery to the public.	0.788
The public acknowledges it feels safe and secure in its transaction with my ministry.	0.916
Employees in my ministry exercise high probity and confidentiality in their service delivery to the public.	0.883
My ministry ensures that the services it offers are appropriate for the stakeholders	0.871
Communication in my ministry is clear, appropriate and timely.	0.815
The public is able to access	0.915

employees, services and
information in my ministry
without much problem.

Appendix V: Durbin Watson Tables

Models with an intercept (from Savin and White) Durbin-Watson Statistic: 1 Per Cent Significance Points of dL and dU

*k' is the number of regressors excluding the intercept

N	k'=1		k'=2		k'=3		k'=4		k'=5		k'=6		k'=7		k'=8		k'=9	
	dL	dU	dL	dU	dL	dU	dL	dU	dL	dU	dL	dU	dL	dU	dL	dU	dL	dU
6	0.39	1.142	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
7	0.435	1.036	0.294	1.676	----	----	----	----	----	----	----	----	----	----	----	----	----	----
8	0.497	1.003	0.345	1.489	0.229	2.102	----	----	----	----	----	----	----	----	----	----	----	----
9	0.554	0.998	0.408	1.389	0.279	1.875	0.183	2.433	----	----	----	----	----	----	----	----	----	----
10	0.604	1.001	0.466	1.333	0.34	1.733	0.23	2.193	0.15	2.69	----	----	----	----	----	----	----	----
11	0.653	1.01	0.519	1.297	0.396	1.64	0.286	2.03	0.193	2.453	0.124	2.892	----	----	----	----	----	----
12	0.697	1.023	0.569	1.274	0.449	1.575	0.339	1.913	0.244	2.28	0.164	2.665	0.105	3.053	----	----	----	----
13	0.738	1.038	0.616	1.261	0.499	1.526	0.391	1.826	0.294	2.15	0.211	2.49	0.14	2.838	0.09	3.182	----	----
14	0.776	1.054	0.66	1.254	0.547	1.49	0.441	1.757	0.343	2.049	0.257	2.354	0.183	2.667	0.122	2.981	0.078	3.287
15	0.811	1.07	0.7	1.252	0.591	1.465	0.487	1.705	0.39	1.967	0.303	2.244	0.226	2.53	0.161	2.817	0.107	3.101
16	0.844	1.086	0.738	1.253	0.633	1.447	0.532	1.664	0.437	1.901	0.349	2.153	0.269	2.416	0.2	2.681	0.142	2.944
17	0.873	1.102	0.773	1.255	0.672	1.432	0.574	1.631	0.481	1.847	0.393	2.078	0.313	2.319	0.241	2.566	0.179	2.811
18	0.902	1.118	0.805	1.259	0.708	1.422	0.614	1.604	0.522	1.803	0.435	2.015	0.355	2.238	0.282	2.467	0.216	2.697
19	0.928	1.133	0.835	1.264	0.742	1.416	0.65	1.583	0.561	1.767	0.476	1.963	0.396	2.169	0.322	2.381	0.255	2.597
20	0.952	1.147	0.862	1.27	0.774	1.41	0.684	1.567	0.598	1.736	0.515	1.918	0.436	2.11	0.362	2.308	0.294	2.51
21	0.975	1.161	0.889	1.276	0.803	1.408	0.718	1.554	0.634	1.712	0.552	1.881	0.474	2.059	0.4	2.244	0.331	2.434
22	0.997	1.174	0.915	1.284	0.832	1.407	0.748	1.543	0.666	1.691	0.587	1.849	0.51	2.015	0.437	2.188	0.368	2.367
23	1.017	1.186	0.938	1.29	0.858	1.407	0.777	1.535	0.699	1.674	0.62	1.821	0.545	1.977	0.473	2.14	0.404	2.308
24	1.037	1.199	0.959	1.298	0.881	1.407	0.805	1.527	0.728	1.659	0.652	1.797	0.578	1.944	0.507	2.097	0.439	2.255
25	1.055	1.21	0.981	1.305	0.906	1.408	0.832	1.521	0.756	1.645	0.682	1.776	0.61	1.915	0.54	2.059	0.473	2.209
26	1.072	1.222	1	1.311	0.928	1.41	0.855	1.517	0.782	1.635	0.711	1.759	0.64	1.889	0.572	2.026	0.505	2.168
27	1.088	1.232	1.019	1.318	0.948	1.413	0.878	1.514	0.808	1.625	0.738	1.743	0.669	1.867	0.602	1.997	0.536	2.131
28	1.104	1.244	1.036	1.325	0.969	1.414	0.901	1.512	0.832	1.618	0.764	1.729	0.696	1.847	0.63	1.97	0.566	2.098
29	1.119	1.254	1.053	1.332	0.988	1.418	0.921	1.511	0.855	1.611	0.788	1.718	0.723	1.83	0.658	1.947	0.595	2.068
30	1.134	1.264	1.07	1.339	1.006	1.421	0.941	1.51	0.877	1.606	0.812	1.707	0.748	1.814	0.684	1.925	0.622	2.041
31	1.147	1.274	1.085	1.345	1.022	1.425	0.96	1.509	0.897	1.601	0.834	1.698	0.772	1.8	0.71	1.906	0.649	2.017
32	1.16	1.283	1.1	1.351	1.039	1.428	0.978	1.509	0.917	1.597	0.856	1.69	0.794	1.788	0.734	1.889	0.674	1.995
33	1.171	1.291	1.114	1.358	1.055	1.432	0.995	1.51	0.935	1.594	0.876	1.683	0.816	1.776	0.757	1.874	0.698	1.975
34	1.184	1.298	1.128	1.364	1.07	1.436	1.012	1.511	0.954	1.591	0.896	1.677	0.837	1.766	0.779	1.86	0.722	1.957
35	1.195	1.307	1.141	1.37	1.085	1.439	1.028	1.512	0.971	1.589	0.914	1.671	0.857	1.757	0.8	1.847	0.744	1.94

36	1.205	1.315	1.153	1.376	1.098	1.442	1.043	1.513	0.987	1.587	0.932	1.666	0.877	1.749	0.821	1.836	0.766	1.925
37	1.217	1.322	1.164	1.383	1.112	1.446	1.058	1.514	1.004	1.585	0.95	1.662	0.895	1.742	0.841	1.825	0.787	1.911
38	1.227	1.33	1.176	1.388	1.124	1.449	1.072	1.515	1.019	1.584	0.966	1.658	0.913	1.735	0.86	1.816	0.807	1.899
39	1.237	1.337	1.187	1.392	1.137	1.452	1.085	1.517	1.033	1.583	0.982	1.655	0.93	1.729	0.878	1.807	0.826	1.887
40	1.246	1.344	1.197	1.398	1.149	1.456	1.098	1.518	1.047	1.583	0.997	1.652	0.946	1.724	0.895	1.799	0.844	1.876
45	1.288	1.376	1.245	1.424	1.201	1.474	1.156	1.528	1.111	1.583	1.065	1.643	1.019	1.704	0.974	1.768	0.927	1.834
50	1.324	1.403	1.285	1.445	1.245	1.491	1.206	1.537	1.164	1.587	1.123	1.639	1.081	1.692	1.039	1.748	0.997	1.805
55	1.356	1.428	1.32	1.466	1.284	1.505	1.246	1.548	1.209	1.592	1.172	1.638	1.134	1.685	1.095	1.734	1.057	1.785
60	1.382	1.449	1.351	1.484	1.317	1.52	1.283	1.559	1.248	1.598	1.214	1.639	1.179	1.682	1.144	1.726	1.108	1.771
65	1.407	1.467	1.377	1.5	1.346	1.534	1.314	1.568	1.283	1.604	1.251	1.642	1.218	1.68	1.186	1.72	1.153	1.761
70	1.429	1.485	1.4	1.514	1.372	1.546	1.343	1.577	1.313	1.611	1.283	1.645	1.253	1.68	1.223	1.716	1.192	1.754
75	1.448	1.501	1.422	1.529	1.395	1.557	1.368	1.586	1.34	1.617	1.313	1.649	1.284	1.682	1.256	1.714	1.227	1.748
80	1.465	1.514	1.44	1.541	1.416	1.568	1.39	1.595	1.364	1.624	1.338	1.653	1.312	1.683	1.285	1.714	1.259	1.745
85	1.481	1.529	1.458	1.553	1.434	1.577	1.411	1.603	1.386	1.63	1.362	1.657	1.337	1.685	1.312	1.714	1.287	1.743
90	1.496	1.541	1.474	1.563	1.452	1.587	1.429	1.611	1.406	1.636	1.383	1.661	1.36	1.687	1.336	1.714	1.312	1.741
95	1.51	1.552	1.489	1.573	1.468	1.596	1.446	1.618	1.425	1.641	1.403	1.666	1.381	1.69	1.358	1.715	1.336	1.741
100	1.522	1.562	1.502	1.582	1.482	1.604	1.461	1.625	1.441	1.647	1.421	1.67	1.4	1.693	1.378	1.717	1.357	1.741
150	1.611	1.637	1.598	1.651	1.584	1.665	1.571	1.679	1.557	1.693	1.543	1.708	1.53	1.722	1.515	1.737	1.501	1.752
200	1.664	1.684	1.653	1.693	1.643	1.704	1.633	1.715	1.623	1.725	1.613	1.735	1.603	1.746	1.592	1.757	1.582	1.768