

**BALANCED SCORECARD ADOPTION RATIONALE  
AND ORGANIZATIONAL PERFORMANCE OF STATE  
CORPORATIONS IN KENYA**

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**Balanced Scorecard Adoption Rationale and Organizational  
Performance of State Corporations in Kenya**

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of Philosophy in Business Administration in the Jomo Kenyatta  
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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**

To my dear family members; my wife Lydia, children Brian, Bianca and Chelsea who I pray will grow to realize the importance of education and achieve the highest level possible. Special dedication also goes to my parents Fransisca Awour and the late Ezra Osewe who tirelessly encouraged me from childhood to soldier on with my education. I cannot forget my brothers and sisters who supported me emotionally and otherwise throughout the period of my study for this degree.

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## **ABBREVIATIONS AND ACRONYMS**

<b>ABC</b>	Activity based costing
<b>BSC</b>	Balanced Scorecard
<b>CFO</b>	Chief Finance Officer
<b>DV</b>	Dependent Variable
<b>GOK</b>	Government of Kenya
<b>ICT</b>	Information Communication and Technology
<b>IR</b>	Institutional Rationale
<b>ISO</b>	International Organization for Standardization
<b>IV</b>	Independent Variable
<b>MF</b>	Management fashion
<b>MNCs</b>	Multinational Corporations
<b>MV</b>	Moderating variable
<b>OCP</b>	Organizational Culture Profile
<b>OP</b>	Organizational Performance
<b>RC</b>	Rational Choice
<b>SD</b>	Standard deviation
<b>TRA</b>	Theory of Reasoned Action
<b>TQM</b>	Total Quality management
<b>VIF</b>	Variance Inflation factor

## DEFINITION OF TERMS

<b>Balanced scorecard</b>	It is a tool of performance management that maps an organization's strategic objectives into performance metrics in four perspectives namely: financial, customers, internal processes, and learning and growth (Kaplan, 2010)
<b>BSC Adoption rationale</b>	Refers to the reasons underlying the decision by an organization to implement the BSC (Scott, 2014)
<b>Rational choice rationale</b>	Rational choice sees management ideas or practices as solutions to problems that employ methodical evaluation and is linked with prescriptive use of approaches such as formal planning, analytical tools and frameworks, metrics and targets (Daniel & Wilson, 2004)
<b>Institutional rationale</b>	This is when the need for legitimacy, adherence to established norms, procedures and practices, gaining stability and acceptance to survive in the social environment drives an organization to adopt BSC (Scott, 2014).
<b>Management fashion rationale</b>	This is when the adoption of a managerial practice is a result of the pressure that the organization undergoes to imitate the others, rather than a rational choice (Abrahamson, 1996).

**Organizational Culture**

Organizational culture is the set of shared values, beliefs, and norms that influence the way employees think, feel, and behave in the workplace (Schein, 2011)

**Organizational Performance**

Organizational performance is a construct that comprises financial and non- financial measures and assesses how well work is done in terms of cost, quality and time (Ringim, Razalli & Hasnan, 2012)

## ABSTRACT

State corporations in Kenya have in the recent past experienced reduced funding from the government and are getting pressure from stakeholders and general public to deliver higher quality services at the lowest cost possible. This has resulted in them exploring new performance management tools. Balanced scorecard is one of the management tools that has been embraced by several state corporations in Kenya. Balanced scorecard is an integrated performance management and measurement tool that was developed to overcome the inadequacies of the traditional financial-based performance measurement tools. Balanced scorecard adoption is affected by diverse rationales which cover rational, emotional and socially conditioned responses. The purpose of this study was to examine the relationship between rationale for balanced scorecard adoption and organizational performance of state corporations in Kenya. This study specifically looked at the relationship between rational choice rationale, institutional rationale, management fashion rationale and the moderating effect of organizational culture on organizational performance of state corporations in Kenya. The research design employed in this study is descriptive design. A systematic explanatory cross-sectional survey design was used using two stages, stage one involved administering a survey questionnaire while stage two secondary data collection, using a secondary data collection tool. For stage one, semi-structured questionnaires were administered to three senior managers in human resource, finance, operations or their equivalent in the 32 organizations making a sample size of 96. In stage two, secondary data collection schedule was used to collect performance data in 20 organizations to corroborate performance data from stage one since performance cannot be perceptual. SPSS Version 22 software was used to analyse quantitative data. The relationship between individual independent variables and dependent variable was analysed using t-test. Hypothesis was tested using ANOVA F-test, and a multiple regression analysis for the combined effect of rationale for BSC adoption on organizational performance. Regression analysis was conducted on secondary data to corroborate the findings in stage one. The findings indicated that the overall model was statistically significant. Further, the findings indicated that rational choice, institutional and management fashions rationales of BSC adoption are good predictors of organizational performance of state corporations in Kenya. The effect of the moderator variable on the relationship between rational choice, institutional and management fashions rationales and organizational performance was tested in three hierarchal stages, first is simple regression, then moderated regression and finally multiple regression. The findings from stage one and stage two showed that the moderation was significant for all the variables, however the only interaction term that became significant was the one for rational choice rationale and culture. This implies that culture is a significant moderator of the relationship between rational choice rationale and organizational performance. Regression of actual data in stage two also confirmed that culture is a significant moderator of the relationship between rational choice for BSC adoption and organizational performance. The overall coefficient of determination 0.561. However culture is not a significant moderator of the relationship between institutional rationale for BSC adoption and organizational performance neither is it a significant moderator of the relationship between management fashion rationale for BSC adoption and organizational performance of state corporations in Kenya.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background of the study**

In the decades since the new public management reforms of the late 1980s and early 1990s, public sector organizations around the world have faced increasing pressure to demonstrate effective performance management. Governments have demanded greater transparency and accountability in regard to the use of public funds hence have turned to private sector performance management practices as potential means of improving and demonstrating their own performance and accountability (Ratnatunga & Alam, 2012).

The balanced scorecard (BSC) concept has proved to be a popular performance measurement and management tool. The objective of its introduction was to overcome the inadequacies of the traditional financial-based performance measurement tools. Within a decade, a majority of the Fortune 1000 companies were implementing or had already implemented it (Kraaijenbrink, 2012). The use of the BSC and its variations not only applies to privately owned commercial entities, but also to the public sector and non-commercial entities (Lawson, Stration, & Hatch, 2006; Kaplan, 2010). It is reported that more than 50% of the Fortune 500 companies adopt the BSC or its variations as a main performance measurement and strategic management tool (Gumbus, 2005).

Rigby and Bilodeu (2007) argue that the extremely high and successful spread of BSC among thousands of organizations two decades after its inception is sufficient evidence that implementing organizations are either satisfied with the concept or at least find some aspects of the concept useful and beneficial to enhance performance. Despite its widespread adoption and being touted by its proponents Kaplan and Norton as having performance enhancing potential, the results are mixed and inconclusive. De Geuser, Mooraj and Oyon (2009) indicate that it has proved difficult to document a strong

relationship between BSC adoption and performance. Norreklit, Mitchell and Bjornenak (2012), pointed out that Kaplan and Norton's BSC literature appeals to managers' emotions instead of logic, but it was expected that at the third decade since its conception, the concept of the BSC would have matured and its application easily replicated across organizations. The results of its adoption however demonstrate many unsuccessful implementations as successful ones (Parmenter, 2012)

### **1.1.1 Global Perspective of BSC Adoption**

Since the 1980s efforts to transform public sector organizations into new public management practices have been prevalent all over the world. Public sector reforms were initiated in Australia, New Zealand and the United Kingdom. The reforms were also undertaken in other European and Asian countries as well. Such reforms have been due to response to pressure from stakeholders and tax payers to show performance improvement. (Christensen & Parker, 2010; Pollanen &Loiselle-Lappointe, 2012)

Under such doctrines, it is believed that the use of performance management system drawn from commercial practices could improve decision making hence improve performance of public sector by introducing better financial and non-financial indicators for the public sector (Northcott et al., 2009).In recent years a number of business-style managerial systems such as the BSC have been mobilized and implemented. Such a trend not only applies to governmental organizations (departments and agencies) but also for state-owned enterprises (Jacobs, 2008). In 1986, the china government implemented balanced scorecard in large scale and they became the national policy for reforming state owned enterprises from 1987 to 1994.by 1989, China had implemented balanced scorecard in 88% of its state owned enterprises (Jones,2008).

BSC has also been used in federal agencies, states, and localities in the United States, in the context of the movement to revitalize government for instance the 1993 Government Performance and Results Act of 1993, required agencies to develop strategic and performance plans, file performance reports to Congress, and develop improved performance measures

using BSC. According to Rigby and Bilodeau (2013) a research conducted among managers of large companies indicate its worldwide adoption stands at 66%.

### **1.1.2 Regional perspective of BSC adoption**

In recent years reforms involving implementation of BSC were also undertaken in African countries (Harun & Kamase, 2012). There has been normative pressure for better governance (for corporations) as the business environment has become more volatile, less predictable and more globalized (Ratnatunga & Alam, 2012).

Some government organizations in Africa have been highly successful in implementation of balanced scorecard. These organizations include; the City of Brisbane, South African National Parks , South African National Defense Force, Office of The Prime Minister in Namibia and a National Project for the Government of Botswana . In spite of having some of the organizations in Africa making tremendous improvement in implementation of balanced scorecard, most government organizations in Africa continue to face balanced scorecard implementation challenges. In Uganda, Tanzania and Kenya many government organizations fail to succeed in embracing BSC (Phillip, 2009).

### **1.1.3 Local Perspective of BSC adoption**

In Kenya BSC was introduced in government in 1989, in the management of State Corporations. In 1991, a state corporation reform strategy paper was approved by the cabinet. The first two parastatals to be put on balanced scorecard were Kenya railways and national cereal and produce board. However, this strategy failed in both parastatals due to Lack of political good will and this was seen as donor driven strategy. The balanced scorecard did not conform to the requirement of the three subsystems of balanced scorecard as they lacked performance incentives (Wanjohi, 2010).

Upon ascending to power in 2002, the NARC government came up with various strategies to revive the economy among which encompassed the use of balanced scorecard once again. The implementation of Balanced Score Card in many Kenyan state corporations

remains as major challenge despite numerous efforts by the government to have BSC adopted as a reform strategy in all government run institutions (Williams, 2011).

According to Maina (2011) as a result of various setbacks in BSC implementation, in order to strengthen public administration and improve service delivery, the Government of Kenya introduced the performance contracts in October 2004. BSC has been made part of performance contract ever since and in the financial year 2016/2017, balanced scorecard was incorporated in the performance contracting guidelines. The two broad rationales that guide the implementation of BSC are rational accounts and social accounts. In the Kenyan context, the rationale behind BSC incorporation in performance contracts is still not clear and there is no adequate explanation on the same. These developments have prompted greater scrutiny on why managers cause their organizations to adopt BSC and the implications of these on performance

The aim of this research was to establish the relationship between these BSC adoption rationales and organizational performance of state corporations in Kenya. This paper will contribute to the literature on adoption rationales of balanced scorecard and organizational performance, it will provide valuable lessons for both academics interested in this domain and practicing managers who must evaluate and make decisions on adoption of BSC within their organizations

#### **1.1.4 Balanced Scorecard**

The Balanced Scorecard (BSC) is a performance management system which was founded and developed by Robert Kaplan and David Norton in 1992. It is used for both profit (business and industry) and nonprofit (government and non-government) organizations worldwide. BSC was made to align business activities to the vision, mission and strategy of the organization, improve both internal and external communications, and monitor organization's performance against strategic goals that was defined in the beginning.

In the past, performance management system mostly only considered the financial perspective, but BSC not only measures the financial perspective but also assesses the stakeholders, internal processes and learning and growth perspectives of the company. The four perspectives translate the strategy into a linked set of measures across four perspectives (Kaplan & Norton, 2010)

The customer perspective measures customer perception towards the organization's performance. The goal of this measure is to answer how the organization should appear to its customers. It developed satisfaction level of the customer. Usually this perspective measures delivery time, product or service quality, and cost. Several examples of indicators that could be used in this perspective are service level, customer satisfaction and complaint rates (Anthoula & Alexandros, 2011). The financial perspective measures and monitor organization's financial performance. The goal of this measure is to answer how the organization should appear to its shareholders (Kaplan, 2010). It includes financial measurements like net profit, return on investment, revenue.

The internal process perspective measures the organization's performance, in terms of effectiveness and efficiency of internal process and procedures. The goal of this measure is to answer the question what business process the organization needs to excel at. This measure makes organization examine which part they were good at and which part they were poor at, so that they can know how to fix their internal performance and make the organization more effective. It measures the business procedures that have the greatest impact on customers' satisfaction, such as reject rate, inventory turnover, employees' productivity control and logistics (Anthoula & Alexandros, 2011)

The learning and growth perspective measures the growth of the organization. The goal of this measure is to answer the question on how the organization will sustain its ability to change and improve (Kaplan, 2010). It indicates the commitment of the organization growth and adaptation. It measures the organization's ability to do innovation, improve its employee and product or services (Anthoula & Alexandros, 2011).

### **1.1.5 Types of BSC**

In terms of maturity of BSC, Lee and Yang (2011) classified the BSC into three different types I, II and III. Type I is the initial stage of the BSC in an organization, combining financial and non-financial measures, covering the four perspectives (financial, customer, internal processes, learning and growth). This BSC type is used to assess organizational performance, and it may establish indicators that show a cause and effect relationship. Type II BSC takes the Type I BSC to the next step. In addition to considering the financial and non-financial measures; it describes the strategy and the measures that use the cause and effect relationships and introducing the strategy map. The BSC is still a performance measurement system, only with measures linked to strategy

Type III BSC this is the last stage of the BSC, when it reaches the maturation stage. It is a fully-developed BSC and it goes from a measurement system to a strategic management system, using defined objectives and action plans to describe and implement the strategy. It also ties the incentives to the BSC for positive motivation, which leads, along with communication and action plans, to strategy implementation.

### **1.1.6 Organizational Performance**

Organizational performance comprises financial and non- financial measures and assesses how well work is done in terms of cost, quality and time (Ringim, Razalli & Hasnan, 2012). It is the most sought outcome and common factor across organizations and gives indication as to whether an organization is doing well or not

The subject of organizational performance can be addressed from either the private sector dimension or from the angle of the public sector. Halachmi (2011) argues that the elaborate dichotomy between public sector organizations and commercial enterprises is that in the public sector, the profit motive does not exist, the potential for income generation is almost negligible and there is no agreed standard against which performance can ultimately be measured. A majority of public sector organizations also generate most

of their income from the levies, fees and are accountable to the taxpayer and government. Consequently it was once considered impossible to measure performance in the public sector. This probably explains why more recently, the language of performance has been associated with the establishment of standards to be achieved, and the audit of organizational systems to ensure conformance, signifying a paradigm shift from traditional measures of performance

There has been intense and unresolved debate on the criteria that can be used to measure organizational performance (Short et al., 2007). Performance indicators are often misunderstood, over-promoted, and accordingly misused to the extent that rhetoric has outdistanced practice by far in this area. Most notably, devising indicators of good quality is a hard task. Moreover, due to the multi-faceted nature of the public sector, the assumption is that it is more challenging to develop measures in these organizations (Fryer et al., 2009). There is no universal agreement on which indicators are appropriate for a particular situation. For instance, in a study conducted by Richard, Mcmillan, Chadwick & Dwyer (2009) focused on organizational performance, overall, across the 213 papers identified as including performance variable, 207 different measures of performance were used. This particular paper has used organizational performance measurement based on the four perspectives of the BSC.

### **1.1.7 Rationales for BSC adoption**

Adoption is influenced by multiple and diverse rationales. There are two types of explanations for reasons for BSC adoption, one is the rational accounts behavior which assumes that organizations act rationally, and adopt the BSC to improve performance or strategic control. The social accounts adoption behavior highlights that organizations are embedded in their institutional and social environments, and are influenced by them or other types of social and institutional pressures.

This study seeks to investigate the constructs of rational choice, institutional rationale, and management fashion rationale for BSC adoption and their relationship with organizational

performance of state corporations in Kenya. It also seeks to investigate the moderating effect of culture on the relationship between BSC adoption rationale and organizational performance of state corporations in Kenya.

### **1.1.8 State corporations in Kenya**

State corporations are established within the provision of state corporations Act chapter 446 of the Laws of Kenya, and given the autonomy to run and concentrate on specific mandates in order to improve service delivery to the public. They correct market failures, exploit social and political objectives, provide education, health, redistribute income or develop marginal areas (GOK, 2015). Although they have board of directors or equivalent governing bodies to oversee their operations, they operate within the general supervision of respective ministries under which they are created.

Section 2 of the state corporations Act cap 446 of the Laws of Kenya defines a State corporation as a body that is defined that way by statute; a corporate body established by an Act of Parliament; a bank or other financial institution or other company whose shares or a majority of whose shares are owned by government or by another state corporation, and; a subsidiary of a state corporation. At independence in 1963, parastatals were retooled into vehicles for the indigenization of the economy

There are 262 state corporations in Kenya, divided into eight broad functional categories based on the mandate and core functions; the eight categories are: Financial Corporations, Commercial/ manufacturing Corporations, Regulatory Corporations, Public universities, Training and Research Corporations, Service Corporations, Regional Development Authorities, Tertiary Education and Training Corporations. The total number of State corporations may have changed owing to time lapse and creation of new ones. (GOK, 2015)

## **1.2 Statement of the problem**

BSC adoption is increasing in Kenya. This is mainly driven by rational and social adoption accounts without careful consideration of the relationship between these rationales and organizational performance. For state corporations, it has become a mandatory requirement of performance contract. For instance in 2017/18 financial year, it was incorporated as part of performance contract guidelines for state corporations. The adopters are not clear on the relationship between adoption rationales (logics) and organizational performance

It is a problem when such corporations spend large amounts of resources on BSC adoption without clear understanding of the relationship between adoption rationales and organizational performance. These have prompted greater scrutiny of how and why organizations adopt BSC and the relationship with organizational performance. It is against this backdrop that this sought to investigate the relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya

Specifically, the relationship between rational choice rationale, institutional rationale, management fashion rationale and organizational performance of state corporations in Kenya. The study also sought to investigate the moderating effect of culture on the relationship between BSC adoption rationale and organizational performance of state corporations in Kenya.

## **1.3 Study justification**

The study made specific contributions to the management practice adoption body of knowledge in the Kenyan context. State corporations are able to evaluate management practices and make informed decisions before making their adoption choices. They are now aware that social accounts on their own should not be the basis for management practice adoption. The study has also come out to explain the relevance of culture in management practice adoption if the decision for adoption was rational.

## **1.4 Objectives of the study**

The general and specific objectives of the study were as follows:

### **1.4.1 General Objective**

The overall objective of this study was to evaluate relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya

### **1.4.2 Specific Objectives**

The specific objectives of the study were:

1. To establish the relationship between rational choice rationale for adoption of BSC and organizational performance of state corporations in Kenya
2. To establish the relationship between institutional rationale for adoption of BSC and organizational performance of state corporations in Kenya
3. To establish the relationship between management fashion rationale for adoption of BSC and organizational performance of state corporations in Kenya
4. To determine the combined effect of rationale for BSC adoption and organizational performance of state corporations in Kenya
5. To assess the moderating effect of organizational culture on the relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya

## **1.5 Research hypothesis**

To examine how each of the criterion variables influence the response variable, the following research hypotheses were tested;-

H<sub>1</sub>: There is a significant relationship between rational choice rationale for adoption of BSC and organizational performance of state corporations in Kenya

H<sub>2</sub>: There is a significant relationship between institutional rationale for adoption of BSC and organizational performance of state corporations in Kenya

H<sub>3</sub>: There is a significant relationship between management fashion rationale for adoption of BSC and organizational performance of state corporations in Kenya

H<sub>4</sub>: There is a significant relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya

H<sub>5</sub>: Organizational culture significantly moderates the relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya

### **1.6 Scope of the study**

This study focused on the state corporations in Kenya for the last six year period with the view of examining the relationship between balanced scorecard adoption rationales and organizational performance of state corporations in Kenya. The study established dimensions of adoption rationales which considered rational choice rationale, institutional rationale, and management fashion rationale as the sub construct under the independent variable. There could be others, but the study concentrated on the relationship between the independent variables on organizational performance of state corporations in Kenya.

The target population of this study was 96 top leaders in 32 state corporations in Kenya with emphasis on the top management. They were chosen for the fact that BSC adoption is a top management issue. Geographically, these state corporations studied are spread all over Kenya. This research study covered for the period of July, 2017 to September, 2018

### **1.7 Significance of the study**

This study will be significant to various stakeholders. First to the managers practicing BSC to understand how the rationales behind their actions may affect organizational

performance. If managers and those researching the domain of management practices such as balanced scorecard can recognize the often complex rationales for adoption, and understand how these may affect organizational performance, they can plan and manage adoption accordingly and have an impact on performance. The relationship between rationale for adoption and organizational performance will provide a fuller understanding of the causes and consequences of management practice adoption such as BSC

This study will also be important to the state corporations as it will bring into light the likely consequence of institutional pressures on implementation of management practices such as BSC. The relationship between rationale for adoption of management practices and organizational performance will provide a fuller understanding of the causes and consequences of management practice hence guide in policy making.

It will also be important to researchers, and scholars of strategic management, in the domain of management practices who may use this thesis as a source of empirical literature. The study will add to the body of knowledge and sensitize them in the area of BSC adoption rationales and how this is likely to affect organizational performance of state corporations in Kenya. It will also be important to students interested in this area of research to further enhance their understanding of BSC adoption rationales and organizational performance of state corporations in Kenya.

### **1.8 Study Limitations**

The organization's confidentiality policy restricted of answering questionnaires from unauthorized respondents since it was considered to be against the organization confidentiality policy with a fear of exposing the organization confidential matters. The information sought by the study was regarded as being sensitive and could potentially reveal their strategies to competitors which restricted some of their staff to respond questionnaires since it was considered to be in contravention of the organization confidentiality policy. Such suspicion is usually associated with any kind of a research study. This was resolved by assuring the

respondent that their response will be treated with utmost confidentiality and respect it deserves.

The introduction letter obtained from the university to the industry helped to avoid suspicion and enabled the management of the industry to support the researcher with the necessary information sought by the study. Other challenges included four of the respondents not filling or completing the questionnaire or some issues being misunderstood, inadequate responses to questions and unexpected occurrences like respondents proceeding on leave before completing the questionnaire. This was moderated through constant gentle reminder to the respondents during the period they were having the questionnaire. The introduction letter obtained from the university was presented to the organization management and this helped to avoid suspicion and enable the organization management to disclose much of the information sought by the study

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter has been divided into three sections, mainly, the theoretical review, conceptual framework and empirical review of literature. The theoretical framework covered the key theories that explain the relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya. Moreover, the conceptual framework section depicted the overall conceptual model for this study which determined the relationship between the dependent variable and independent variables. Finally, empirical literature were reviewed critically and analyzed recent research studies on the independent and dependent variables finally identifying the research gaps.

#### **2.2 Theoretical review**

This study was guided by different theories that explain the relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya. The overarching theories underpinning this study are the rational choice theory, the institutional theory, rhetoric theory, theory of reasoned action and planned behavior.

##### **2.2.1 Rational choice theory**

Rational choice intellectual position was secured in Thomas Hobbes' *Leviathan* (1651). Hobbes tried to explain the basic functioning of political institutions via individuals' choices. He conjectured choices stemmed from universally held 'appetites' and 'aversions.' The effort was continued by such illustrious figures as Francis Hutcheson, David Hume, Adam Smith, and later Utilitarian's as Jeremy Bentham and John Stuart Mill. Others followed including many in economics. These works spawned what has come to be thought of as classical rational choice theory.

It is concerned, with finding the best means to given ends. In the face of a decision-making situation, an actor considers a finite set of alternatives, ascribes consequences to them, orders these consequences according to their importance and value, and makes an optimal choice among available alternatives. The actor is assumed to know all available alternatives, and chooses the best action or means to achieve her ends on the basis of expectations about future consequences or outcomes of her choices. (Burns & Roszkowska, 2016)

It has had a wide range of applications: among others, operations research, decision engineering, game theory, enterprise decisions about production, output, investment, and technological change among others. The theory emphasizes the volitional nature of human action and the capability of actors such as managers in institutions faced with adoption decision to make decisions and to act on the basis of rational calculations of benefit and cost. Organizational adoption of management practices such as BSC is motivated by a desire for efficiency gains and related boosts to economic performance. The connection between cost effectiveness and the likelihood of diffusion is one of the most widely reported findings in the innovation diffusion literature (Strang & Macy, 2010).

The most common argument against the use of rational choice models outside economics and society is that they make unrealistic assumptions about individual behavior as well as the structure of the situation. A common main criticism is that real decision-makers are not strict rationally calculating and self-interested. They are constrained by institutions, cultural influences, and psychological limitations that make the assumption of rationality problematic at best, and foolhardy at worst (Burns & Roszkowska 2016)

This study relied on this theory since most state corporations are faced with the problem of scarce resource allocation and pressure to come up with measures that would assure efficiency and effectiveness. Pressures on state corporations such as reform strategy demanding adoption of BSC in all government run institutions in Kenya pose a great challenge to state corporations (Williams, 2011). This theory is closely linked to the first

objective of this study on examining the relationship between rational choice rational and organizational performance, since despite pressure by the government and other stakeholders on reform initiatives, rational choice theory is fundamentally concerned with the art of organizing and choosing the best of several choices minimizing costs and maximizing returns. It allows for evaluation of options available before adopting management practice such as BSC.

When an organization is faced with a complex situation like making a decision on whether to adopt or not to adopt a management practice, the rational choice model, has comparability of the values or preferences of each of the sets of consequences; the actor applies a decision or choice procedure to the alternatives to determine which maximizes net gain; the procedure selects a single alternative on the basis of its consequences for the actor in terms of her preferences or utilities. The actor makes a choice by selecting the alternative which maximizes a utility or value function (Strang & Macy, 2010). The theory is therefore closely linked to rational accounts adoption behavior of state corporations which is the first specific objective of this study.

### **2.2.2 New institutional theory**

This study is anchored on New Institutional Theory. The foundations of New Institutional theory were laid by Meyer and Rowan (1977) and Di Maggio and Powell (1983). The central tenet of this theory is that organizations construct their image in accordance with society's prevailing rules and expectations. This theory is used to analyze the behavior of institutional actors and to research their decisions to increase their legitimacy, which may explain the emergence and diffusion of practices such as the BSC (Guerreiro et al., 2005; Steen, 2005). Institutional theory sheds light on decisions that organizations make based on social accounts.

Social accounts assume that organizations frequently imitate other organizations in order to appear legitimate and that with increasing institutionalization to the adoption of management practices is often driven by a desire to appear in conformance with norms

.Specifically, social accounts tend to assume that organizations frequently imitate other organizations in order to appear legitimate. According to Yulia (2016), New Institutional sociology adherents argue that in consequence organizations often adopt and use new organizational models ceremonially not for the sake of greater efficiency but for the purpose of signaling the availability of practices which enhance the organizations' image and legitimize them in their social contexts. They attest that possessing the right image brings social recognition and gives privileged access to resources, which is especially relevant in the often highly regulated public sector such as state corporations

This theory demonstrates how non-choice behaviors can occur and persist, through the exercise of habit, convention, convenience, or social obligation. The organization is therefore not viewed as a production system, hence being efficient is not only way for organizations to survive. Legitimacy in the external environment such as state, government, parent companies and external bodies is another means of ensuring survival.

One important notion in this theory is that of loose-coupling occurs when formal rules conflict with actual work practices leading to isomorphism. In this case organizations facing similar institutional environments tend to adopt similar practices. Di Maggio and Powell, posit three mechanisms of structural isomorphism, namely coercive pressure, normative pressure and mimetic pressure. Coercive isomorphism results from both formal and informal pressures exerted on organizations by other organization which depend on (and external factors such as government policy and regulation) and cultural expectations in the society within which they operate. They therefore adopt BSC and some practices of high-performance work systems due to uncertainty, or to cope with competition (Paauwe & Boselie 2010).

Organizations can receive these pressures as force, persuasion or invitation to join in collusion. They are mainly, embedded in regulatory processes, which can manifest themselves in different forms, and differ in their degree of enforcement (Paauwe & Boselie 2010). Coercive mechanisms include the influence of social partners (trade unions

and work councils), employment legislations and the government, like policies. These mechanisms can be visible at different levels including international, national and industry. International-level pressures may include different international Labour conventions; national-level regulatory pressures include employment laws; and industry-level regulatory pressures include sector-wide collective-bargaining agreements (Paauwe & Boselie 2010).

Normative isomorphism refers to, relations between the management policies and the employee background. This includes educational level, job experience and networks of professional associations. It is associated with professionalization, which is often interpreted as, the collective struggle of members of an occupation to define conditions and methods of their work, to control the production of producers, and to establish a cognitive base and legitimacy for their occupational autonomy. The degree of professionalization of employees affects the nature of the management control system. Dolnicar, Irvine and Lazarevski (2008), claim that such pressures from society has become a trend in the implementation of the BSC in public organizations. Norms and values that professionals develop through formal education and professional networks increase the similarity of the skills and knowledge of the total workforce in a given organizational field (Boon et al., 2009).

Professionals from highly institutionalized professions can occupy similar positions in various organizations in the field; they can bring their professional norms and values into organizations, which might lead to similar organizational behavior. Likewise, if professionals working in the same industry receive education from the same institutions and associate with the same trade associations, organizations that employ these professionals tend to adopt similar practices (Tsai 2010). BSC adoption can result from such professional networks.

Mimetic isomorphism results from the organizational response to uncertainty. When organizational technologies are poorly understood, when goals are ambiguous, or when

the environment creates symbolic uncertainty, organizations may model themselves on other organizations in the organizational field, which are perceived to be successful and legitimate. Organizations may do so without being fully cognizant of the means-ends relationships that reside within the structures and processes. Managers in organizations may imitate the practices of a competitor as a result of uncertainty, or fads in the field.

This theory is closely linked to the second objective of this study on the relationship between institutional rational and organizational performance. It is also related to the third objective or relationship between management fashion rationale and organizational performance because adoption results from the need for legitimacy to please the various stakeholders.

### **2.2.3 Rhetoric theory**

Classical writers regarded rhetoric as having been invented, in the fifth century before christ (B.C) in the democracies of Syracuse and Athens. This theory emphasizes the vital role of language in understanding organizations (Alvesson & Karreman, 2010). Extant literature has shown that managers are essentially discursive beings, spending two thirds to three-fourths of their time engaged in verbal activity. Managers use this constant verbal activity to gather information, develop shared understandings of the world, and persuade individuals to contribute to collective purposes, such as the adoption and implementation of practices such as BSC. Managers hear and use all kinds of arguments to elicit action and describe the world. However, most managers are unaware of the ways in which their language influences social action.

Most models of diffusion suggest that adoption of new practices and structures is driven by the intrinsic merits of the innovation and/or the characteristics of potential innovation but forgetting and underemphasizing the role of rhetoric in the diffusion process. Actors are seen as adopting new practices and structures because they are effective. Yet such views rest on the assumption that new practices do not actually have to be effective, actors only have to believe they are beneficial . A rhetorical view asserts that these beliefs do not

emerge within a social vacuum; they are rhetorically shaped and promoted by organizational actors. Managers championing the adoption of new practices such as BSC provide discursive justifications that rationalize their adoption (King & Kugler, 2010)

Rhetorical view posits that rationality is influenced by our ability to give reasons and, thus, link claims with justifications. Specifically, managers, in conversation with themselves and others, rationalize the adoption of managerial practices. This formulation resonates with arguments that rationality is discursively produced. The more persuasive the discursive reasons supporting a managerial practice, the more rational its adoption becomes hence in a way it is also closely related to rational choice theory. (Alvesson & Karreman, 2010)

Rhetorical theory of diffusion explains how variation in discursive reasons persuades actors to adopt new practices and how, over time, the persuasiveness of these justifications shapes the way practices become taken for granted. This emphasizes the importance of taken-for-grantedness as a direct product of persuasiveness. Rhetorical theory suggests that as the persuasiveness of discourse increases, the production of taken-for-grantedness increases. Managerial practices such as BSC through discussions make sense and can become taken for granted. Sense making involves justifying a practice within an argumentative or linguistic context. They justify the adoption of BSC, scan the commonly held assumptions of his or her audience to produce justifications that support his or her claim about the practice. These justifications are then used by managers to shape the production of that which will be taken for granted (King & Kugler, 2010).

According to this theory, Individuals make justifications; however, it is conceptualized that the justification represents the dominant concerns of individuals in firms, classes, or organizations. Thus, an organization might make a justification through individual's expression of a dominant or widely held view. They may measure changes in justifications in a group of managers within a firm, or in a group of managers across firms. They may observe these justifications are such external sources as the business press or such internal

sources as prior adopters' presentations to analysts, shareholder meetings, and so forth (King & Kugler, 2010). This theory is closely linked to the third objective of this study on management fashion rationale for BSC adoption and organizational performance since management fashions are considered as fads that spread because of discussions of managers, business press, presentations, and shareholder meetings among others. Managers therefore need to know the relationship between these mode of adoption and organizational performance.

#### **2.2.4 Theory of reasoned action**

The theory of reasoned action (Ajzen & Fishbein, 1980) was first introduced in 1967 by Fishbein in an effort to understand the relationship between attitude and behavior. It attempts to explain the relationship between beliefs, attitudes, intentions and behavior. According this theory, the most accurate determinant of behavior is behavioral intention. The direct determinants of people's behavioral intentions are their attitudes towards performing the behavior and the subjective norms associated with the behavior. Attitude is determined by a person's beliefs about the outcomes or attributes of performing a specific behavior (that is, behavioral beliefs), weighted by evaluations of those outcomes.

In the context of this study, this theory is closely linked to organizational culture. Culture can influence the success of adoption of management practice , therefore this study is anchored on the theory to explain how beliefs, attitudes, intentions and behavior can influence adoption rationale and success of BSC. According to Montano and Kasprzyk (2002), the theory of reasoned action is successful in explaining behavior when volitional control is high. In conditions where volitional control is low, the theory of planned behavior (Ajzen, 1991) is more appropriate to explaining behavior.

Ajzen (1991) proposed the theory of planned behavior by adding perceived behavioral control to the theory of reasoned action, in an effort to account for factors outside a person's volitional control that may affect her/his intentions and behavior. This extension was based on the idea that behavioral performance is determined by motivation (intention)

and ability (behavioral control). According to Montano and Kasprzyk (2002), perceived behavioral control is similar to Bandura's concept of self-efficacy, which refers to an individual's belief in his/her ability to perform a particular behavior under various conditions

This theory is closely linked to the fourth objective of this study on moderating effect of culture on relationship between BSC adoption rationales and organizational performance of state corporations in Kenya. BSC adoption depend on organizational beliefs, attitudes, intentions and behavioral intentions. To successfully adopt BSC, there is a need to move towards behavior change. Attitudes and beliefs have been shown to be significant in people's choice of action, hence relevant to behavior change. The assumption is that if people's attitudes towards BSC are shaped in particular directions and their beliefs about the expectations of their significant others are reinforced, it will then be possible to change behavior

### 2.3 Conceptual framework

In this study, the figure 2.1 depicts the relationship between the rationale for balanced scorecard adoption and organizational performance of state corporations in Kenya.

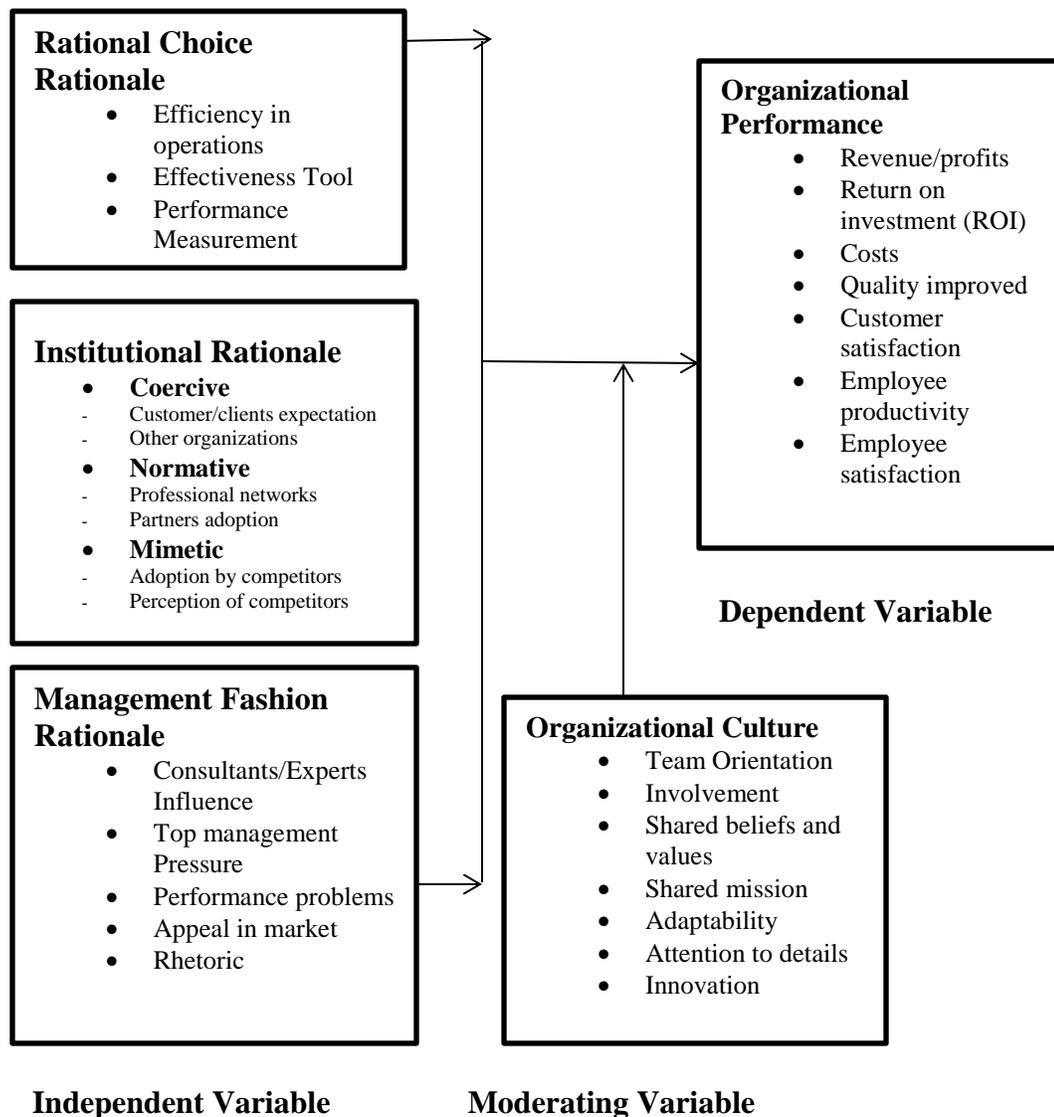


Figure 2.1: Conceptual framework

### **2.3.1 Rational choice rationale**

Rational choice rationale posits that the technical and economic analyses of costs and benefits guide the justification for an organization to adopt the BSC. It recognizes management practices as solutions to problems that employ methodical evaluation and is linked with prescriptive use of approaches such as formal planning, analytical tools and frameworks, metrics and targets ( Daniel and Wilson, 2010).In this rationale, efficiency, effectiveness, metrics and achievement of economic results guide management decisions.

Green (2012) outlined certain steps which he believes the rational choice analysis should follow: Identify the relevant agents and make assumptions about their objectives, identify the constraints faced by each agent, determine the “decision rules” of each agent, which characterize how an agent’s, choices respond to changes of one kind or another. This task is usually accomplished mathematically by the solution of a constrained optimization problem, determine how the decision rules of various agents may be made consistent with one another and thereby characterize the equilibrium of the model. Effective analysis of complex interactions between agents normally involves the use of mathematical methods, which can sometimes be quite sophisticated, explore how the equilibrium of the model changes in response to various external events. That is, determine the predictions or implications of the model, examine whether the predictions determined are consistent with, actual experience, draw conclusions and any implications (for government policy)

### **2.3.2 Institutional rationale**

Institutional rationale posits that to deal with uncertainty, organizations will tend to adopt the same structures and strategies and hence, over time, will tend to become similar or isomorphic. This is because organizations are influenced by society's prevailing rules and expectations. As a result of these, they experience pressures. These pressures could be normative from sources, such as the state, society, political parties. Could be mimetic pressures from a sense of duty or coercive. The effect of such pressures could be positive or negative on organizational performance

### **2.3.3 Management fashion rationale**

A constellation of actors called the fashion setting community such consultants, gurus, own management and business media could be responsible for the launching and popularizing new management concepts such as BSC. According to this concept management fashion starts from the assumption that the adoption of a managerial practice is a result of the pressure that the organization undergoes to imitate the others. This rationale borrows from the mimetic forces of the institutional theory

### **2.3.4 Organizational culture**

Organizational culture is the set of shared values, beliefs, and norms that influence the way employees think, feel, and behave in the workplace (Schein, 2011). Two common models and their associated measurement tools have been developed by O'Reilly, Chatman & Caldwell (1991) based on the belief that cultures can be distinguished by values that are reinforced within organizations. This study uses organizational profile model which is a self-reporting tool which makes distinctions according seven categories namely innovation, stability, and respect for people, outcome orientation, and attention to detail, team orientation, and aggressiveness

### **2.3.5 Organizational performance**

Organizational performance comprises financial and non- financial measures and assesses how well work is done in terms of cost, quality and time (Ringim, Razalli & Hasnan, 2012). It is the most sought outcome and common factor across organizations and gives indication as to whether an organization is doing well or not

## **2.4 Empirical review**

The empirical literature review discusses the issues that this study sought to address. Each subsection is directly derived from the research objectives of this study. Recent research studies relating to this study will be critically reviewed and analyzed for purposes of

understanding the current research gaps and issues relating to the research objectives and variables under this study. In the subsequent sections, review of literature on the relationship between the dependent variable (organizational performance) and the independent variables composed of rational choice rationale, institutional rationale, management fashion rationale, and the moderating effect of culture will be analyzed.

#### **2.4.1 Rational choice rationale and organizational performance**

Rational choice theory is an economic principle that states that individuals always make prudent and logical decisions. Rational accounts offers a formal analysis of the process of rational decision-making under the assumption that individuals are capable of making reasoned choices based on their goals and beliefs. The central premise of rational choice rationale is that human behavior is goal-directed and calculating. (Levin & Milgrom 2010)

Rational choice has an immediate intuitive appeal, since they focus on the presumed economic benefits that result from the adoption of a practice such as BSC. The connection between cost effectiveness and the likelihood of diffusion is one of the reasons that would drive an organization to adopting a management practice such as BSC. Since organizational adoption is usually motivated by a desire for efficiency gains and related boosts to economic performance. It takes utility maximization which is based on rational accounts as the literal description of a decision process (Ansari, Fiss & Zajac, 2010).

Rational choice comes in two versions. The first one suggests that selection forces weed out the weaker performers, who fail to adopt an efficient practice. The second indicating effective innovations are adopted by rational decision makers who make the choices that lead to the diffusion of beneficent innovations (Ansari, Fiss & Zajac, 2010). In both forms a key mechanism explaining increasing levels of adoption pertains to information cascades, where adoption processes build momentum as firms use observed behaviors of early adopters, presumably with more accurate information about the practice, to update their own value expectations regarding a diffusing practice (Terlaak & Gong, 2008). In such models imitation follows from a heuristic of social proof that is, firms infer from the

actions of other firms what constitutes appropriate actions to minimize search costs and to avoid the costs of experimentation.

In the context of BSC adoption, with greater diffusion, more information about the utility of a practice reduces its associated uncertainty and, thus, the risk of adoption, speeding up the diffusion process. However, some rational models also acknowledge that information cascades may lead to herding behavior, which occurs when it is optimal for an individual, having observed the actions of those ahead of him, to follow the behavior of the preceding individual without regard to his own information. Such information cascades may form particularly fast when early adopters are high status individuals or are perceived to have special expertise, leading other firms to imitate them, even if their private information indicates that adoption is not beneficial (Ansari, Fiss & Zajac, 2010).

Hemming (2012) exemplifies that as companies around the world transform themselves for competition, based on information, their ability to exploit intangible assets has become far more decisive than their ability to invest in and manage physical assets hence BSC is a good option . Balanced scorecard is presented as a management system that can motivate breakthrough improvements in such critical areas as product, process, customer, and market development and rational choice is based on a formal account of rational decision-making when the agent faces a range of options with determinate outcomes, offering a set of decision rules for making a rational choice. This is usually the core of decision theory, where the concepts of utility, preference and probability are introduced. In such situations, rational choice informs the decision on management system adoption such as BSC. We therefore present the hypothesis

*H<sub>1</sub>: There is a significant relationship between rational choice for BSC adoption and organizational performance of state corporations in Kenya*

#### **2.4.2 Institutional rationale and organizational performance**

Legitimacy arguments hold that the diffusing practice is at no time technically efficient it never employs the optimum means for achieving its stated goal, or it may even be completely ineffective but because of other factors, such as cultural compatibility or the normative expectations of outside stakeholders, organizations may still find it advisable to adopt the practice to increase or maintain their standing in the eyes of their constituency. Organizations may have to bring changes to their policies and practices in response to such pressures (Tsai 2010)

According to Kinuu (2014), normative pressures from external and internal sources, such as the state, society, political parties, monarchies, parliaments and other democratic institutions, influence public organizations. In addition, formal institutions (legal and political rules) and informal institutions (culture and morality) affect the stakeholders in the publics. Public sector stakeholder includes the governing bodies, senior managers and chief finance officers of government departments (Kober, Lee, & Ng, 2013).

Rautiainen (2009) mentions that based on the institutional pressure, public organizations are forced to imitate various models and theories of the private sector within their organizations such is the case for BSC adoption by public institutions. Since the BSC focuses on more than one perspective, it has become common to implement it in public organizations, such as state corporations. Such pressures include coercive pressures due legal mandates or influence from organizations they are dependent upon, for example an organization that is dependent upon a resource provider is pressured to accept rules imposed by that resource provider. This causes change in behavior to avoid sanctions and enhance survival.

Mimetic pressures come from a sense of duty or obligation of members to comply with professional body or trade association pronouncements (Chang & Seow, 2016). They could be due to uncertainty of which practice to adopt, making an organization to imitate or replicate practices of successful organizations in their industry. Such pressures can also

come from dealing with customers or suppliers or trading partners. Normative pressures come from the urge to have better governance for corporations as the business environment has become more volatile, less predictable, more globalized (Craig & Allen, 2007).

Normative pressures influence use and design of performance measures. According to Munir (2011), it is empirically reported that coercive pressures have a positive effect on the economic performance of banks, particularly in achieving lower inflation rates, cushioning the impact of political cycles on economic cycles, boosting fiscal discipline without any additional costs or sacrifices in terms of reduced economic growth. We therefore present the hypothesis

*H<sub>2</sub>: There is a significant relationship between institutional rationale for BSC adoption and organizational performance of state corporations in Kenya*

### **2.4.3 Management fashion rationale and organizational performance**

We often assume that managers are hard-nosed rationalists who adopt new management ideas to achieve important goals or improve existing practice. However, managers' decision to embrace new ideas is often informed by collective beliefs about rational or progressive managerial practice. These collective beliefs are shaped by idea providers such as consultants or gurus (Jackson, 2011). They can therefore assume the characteristics of management fashions, leading to a 'relatively transitory collective belief, disseminated by management fashion setters, that a management technique leads rational management progress'

Some examples of management fashions include total quality management, quality circles, team-working, integrated marketing communication, business process reengineering and balanced score card. Management fashions consist of practices and discourses associated with them (Benders & van Veen, 2011). Discourses are bodies of talk and text which constitute a particular practice as popular, important and widely

applicable. Studies have found that discourses associated with management fashions move in a recognizable cycle. Initially, new managerial ideas emerge in response to perceived shortcomings of current practice. They are subsequently appropriated and promoted by fashion industries populated by gurus, consultants and publishers (Sahlin-Andersson & Engwall, 2012). Finally, the fashion will fade as the gaps between its promises and the reality of implementation become increasingly apparent.

In view of the bell-shaped curve, we would suspect that few management fashions would survive the initial celebrations. Proponents of management fashion theory suggest that the discourse associated with a management fashion eventually declines and the fashion including its underlying practice will eventually be forgotten. However, existing research indicates that the practices associated with some management fashions do not necessarily disappear even when the discourse fades. For instance, the once fashionable discourse of Total Quality Management (TQM) has had lasting effects on how organizations address quality-related issues (Thomas & William, 2011).

The fashion perspective is particularly well suited for explaining the infectiousness of the BSC and the ways in which organizations are exposed to the BSC idea. The interpretive flexibility of the BSC explains its widespread diffusion and fashion potential, as it is perceived as potentially useful and appealing to a wide range of actors in different contexts. The concept can be interpreted and customized in different ways on both the supply side and the demand side (Braam, 2012)

According to Madsen and Slåtten (2015) a constellation of actors called the fashion setting community such consultants, gurus, and business media are responsible for the launching and popularizing fashions as supply-side actors disseminating and promoting new ideas via a number of different diffusion channels, such as conferences/seminars, business media, educational programs, and the internet. In carrying out such dissemination activities, supply-side actors perform institutional work which over time may

institutionalize fashionable concepts and ideas, making them a more permanent part of practice, and less likely to go out of fashion.

The demand side of management fashion consists of organizations and managers. It is argued that managers may adopt new concepts and ideas not only as a response to real performance-related problems, but also as a result of social and institutional pressures. Managers may become exposed to ideas via management fashion-setters and decide to adopt fashionable ideas to keep up with the fad. Fashions are not interpreted and applied uniformly, but have interpretive space leading to varying application and use among different groups of adopters and communities (Madsen & Slåtten, 2015).

The criticism of management fashions is that they don't pay attention to contextuality and interpretation, and approach knowledge in a similar way with commercial products and this could have a negative impact on organizational performance. They also don't correctly define roles of people in management fashion market (Jung & Kieser, 2012). In BSC study in Sweden, Ax and Bjornenak (2015) pointed out the important role played by fashion-setters such as consultants and conference organizers in the early phase of BSC diffusion in Sweden this could in turn affect organizational performance. We therefore present the two hypothesis

*H<sub>3</sub>: There is a significant relationship between management fashion rationale for adoption of BSC and organizational performance of state corporations in Kenya*

*H<sub>4</sub>: There is a significant relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya*

#### **2.4.4 The moderating effect culture on organizational performance**

Rigby and Bilodeau (2012) acknowledge that corporate culture directly affects the success of management tools used to aid companies in process improvement and decision making hence becoming an important moderator between BSC adoption and organizational

performance. This study has adopted Denison's (1997) culture and effectiveness model. The model is based on four hypotheses related to the dimensions or traits of organizational culture, which Denison synthesizes into a framework. The first hypothesis, involvement, suggests that when members are encouraged to participate, a sense of ownership and responsibility develops, leading to commitment to the organization. Consistency, the second hypothesis, posits that when the organization's culture, comprised of shared beliefs, values, and symbols, becomes internalized, consensus and coordination are more effectively achieved.

The third hypothesis, adaptability is based on the need for the organization to recognize changes in the external and internal environment and then make the appropriate responses to accommodate those changes. Finally, the mission hypothesis states that in the presence of a clearly communicated, broadly shared mission, the organization finds purpose and meaning as well as direction. These, in turn, help to define the appropriate course of action for the organization and its members. According to Denison's (1997) hypotheses, all of the cultural traits are positively related to effectiveness. Kaplan and Norton (2010) report that companies that successfully implemented the BSC had a culture in which people were deeply aware of and internalized the mission, vision, and core values needed to execute the company's strategy.

A considerable body of literature links performance management systems to organizational culture. Further, the body of literature regarding the relationship of organizational culture to the BSC is growing as the BSC matures. Roll (2013) States, that a company however big or small cannot successfully implement corporate strategy without employees who believe in the mission and understand how to achieve it. He says principles for success include understanding differences in global cultures, understanding what culture means to different people and aligning change

Kaplan and Norton (2010) report that companies that successfully implemented the BSC had a culture in which people were deeply aware of and internalized the mission, vision,

and core values needed to execute the company's strategy. Charaf and Bescos (2013) tested the influence of cultural factors such as innovation, outcome orientation, team orientation, to the adoption of ABC, and they found a relationship between some of these cultural factors and ABC adoption. Preziosi et al. (2010) support the direct relationship of organizational culture to successful implementation of the BSC because companies that have innovative cultures are adaptable, flexible, and experiment with new tools and ideas. Companies with a team-oriented culture highlight cooperation and collaboration among employees.

Business units with a detail-oriented culture pay attention to details and emphasize precision. These units are more likely to value the information produced by BSC because of their need for accuracy and detail. On the other hand, units that place less stress on detail might neglect the time or resources to make sure that BSC implementation is successful. Employees in companies with more innovative cultures are more likely to react positively to new techniques, thus increasing the chance of their success, whereas the converse will apply in companies with less innovative cultures (Rababah, 2015). We therefore present the hypothesis

*H<sub>5</sub>: Organizational culture moderates the relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya*

## **2.5 Critique of existing literature relevant to the study**

From the review of the extant researches there are clear indication of inconclusiveness in BSC adoption rationales and organizational performance. Elizabeth (2008) sought to explore how the identified rationales may relate to characteristics of the subsequent adoption process, namely, the timing of adoption in the life cycle of the innovation and how long the adoption process takes. Despite recognizing the critical areas of the adoption rationale the research was exploratory and did not establish the critical area of their relationship with organizational performance, even though they recognized that managers

continually seek to improve the performance of their organizations and when they adopt new practices they are considered faddish. The current study will be different in that it will seek to establish the relationship between the adoption rationales and organization performance using explanatory cross sectional survey methodology.

Study by Madsen and Stenheim (2014), indicate that researchers have not found a clear-cut relationship between the use of the BSC and organizational performance. According them despite a large body of scholarship on the BSC criticizing or remaining skeptical about a clear-cut relationship between the BSC adoption and business performance, the widespread practice of the BSC suggests its use has some beneficial values, whether perceived or real, to thousands of organizations that have implemented This study will look into the use of BSC with particular focus on the rationales leading to adopt BSC and the relationship with organizational performance.

Rigby and Bilodeau (2013) argue the extremely first and successful spread of the BSC among thousands of organizations two decades after its inception is sufficient evidence that implementing organizations are either satisfied with the concept or at least find some aspects of the concept useful and beneficial to enhance organizational performance. This study will look at the aspects that are useful with respect to the independent variables which may fill the gaps left by this study.

Nazim (2015) adds that the BSC improves achievement of strategy since it transforms a strategy into tangible performance metrics, which managers can track, alter or speed up. It also enables managers to align strategy vertically, from strategic management to operational management as well as horizontally between employees to ensure operations activities promote and support strategy execution, but BSC could fail or succeed right from the time the adoption decision is made. These studies have failed to recognize this fact. The current study will illuminate the importance of adoption decisions and their relationship with organizational performance.

Madsen and Stenheim, (2014) point out that BSC has many of the characteristics of management fad and point out that a number of different supply side actors have been involved in the diffusion and popularization of the BSC. Despite widespread use and

practitioner-oriented literature suggesting the BSC has beneficial values especially in enhancing organizational performance and strategy achievement. This study will bring out the relationship between management fads and organizational performance of state corporations. Norreklit (2012) claims that Kaplan and Norton present no sound arguments to prove that the BSC actually give the results they claim, creating nothing more than an illusion by using metaphors and other stylistic devices. This study looks at the spread of BSC through rhetoric's and relationship with organizational performance

## **2.6 Research gaps**

Several studies given above have failed to establish the link between balanced scorecard adoption rationale and organizational performance. They look at adoption and performance without considering the fact that adoption does not just come but is guided by several rationales such as pressures from various sources, influence from the BSC practitioners or by rational accounts and this should be the first consideration in BSC adoption. This study will therefore look at the adoption rationales the independent variable with organizational performance being the dependent variable by establishing the relationship between BSC adoption rationale and organizational performance of state corporations in Kenya. The study seeks to further on the study of Madsen and Stenheim (2014) which established that BSC exhibits many of the hallmarks of a management fashion, and could be an example of a consulting product which to a large extent is 'old wine in new bottles.

It also seek to further on the study by Wu (2010) who found out that there is a possible relationship or pattern between the rationales and there is a need to study the adoption of management innovations both with the underlying organizational context and the dependent or outcome variable of organizational performance. Further, the study seeks to further on Daniel, Myers and Dixon (2012) who established that those adopting a management practice may identify rational driver before the adoption commences, or they may post-rationalize it, but there is a need to identify differing adoption rationales and confirming the link between those rationales.

Further Ugurlu, Ibrahimoglu and Ayas (2013) established that 70% of the firms widely use strategic management applications. Despite this, the judgment that nearly 30% of the firms could not understand the strategic management concept wholly and they applied it defectively, and there is need to establish the relationship between practice levels of firms for new management techniques such as BSC and firm performance with different methods

## **2.7 Summary of literature review**

Adoption rationales and organizational performance are two very close areas which are very interdependent. Organizational performance is closely linked to the rationale for adoption of management practices it is therefore important for managers to note that rational accounts and social accounts will affect their adoption decisions. Every organization has its culture as organization implementation of management practices such as BSC must be in line with the organizational culture since diversified kinds of people are likely to work within the organization, thus it is important to have policies and changes within the organization that are open to such changes.

Research has confirmed that adoption practices has played a fundamental role in influencing organizational performance. Competitive business environment of the twenty first century requires strategic leaders need to focus on right adoption choices. These scholars contend that pressures on organizations emanating from change initiatives like public sector reform strategies must be managed. There are also pressures from the BSC practitioners, media and various discussants. Others contend that such decisions should be made from rational point of view.

In a nutshell, this chapter focused on four theories; strategic leadership rational choice theory that outline recognizes management practices as solutions to problems that employ methodical evaluation and is linked with prescriptive use of approaches such as formal planning, analytical tools and frameworks, metrics and targets. Institutional theory explains how organizations tend to adopt the same structures and strategies and hence, over time,

will tend to become similar or isomorphic. This is because organizations are influenced by society's prevailing rules and expectations. As a result of these, they experience pressures.

Management fashion theory attests that managers use constant verbal activity to gather information, develop shared understandings of the world, and persuade individuals to contribute to collective purposes, such as the adoption and implementation of practices such as BSC. Managers hear and use all kinds of arguments to elicit action and describe the world. However, most managers are unaware of the ways in which their language influences social action. Finally theory of reasoned action explains the relationship between beliefs, attitudes, intentions and behavior. According this theory, the most accurate determinant of behavior is behavioral intention. The direct determinants of people's behavioral intentions are their attitudes towards performing the behavior and the subjective norms associated with the behavior.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter, research methodology was used to investigate the relationship between balanced scorecard adoption rationales and organizational performance of state corporations in Kenya. Precisely, the chapter presents research design, research philosophy, target population, sampling and sampling procedures, data collection procedures, pilot study and data analysis methods employed by the researcher in answering the fundamental research question. The pilot study, validity and reliability of the research instruments are also discussed.

#### **3.2 Philosophical orientation**

Bryman (2012), posited that research philosophy is a belief about the way in which data about a phenomenon should be collected, analyzed and interpreted for use. Two major research philosophies have been identified in the western tradition of science, namely positivist and Interpretivists. The concept of positivism is directly associated with the idea of objectivism. In this kind of philosophical approach, scientists give their viewpoint to evaluate social world with the help of objectivity in place of subjectivity (Cooper & Schindler, 2014)

This study employed a positivism philosophy. According to this paradigm, the researcher was interested in collecting general information and data from a large social sample instead of focusing details of research. According to this position, researcher's own beliefs have no value to influence the research study. The positivism philosophical approach is mainly related with the observations and experiments to collect numeric data (Cooper & Schindler, 2014)

### **3.3 Research Design**

This research employed descriptive research design. Descriptive research design was found appropriate since it provides an accurate account of characteristics of a particular event or scope of real life situation (Kothari, 2014). Mugenda and Mugenda (2008), held it that research design denotes the methodology that the study is to take in order to accomplish its intended objectives. Descriptive design is a relevant design when researcher wishes to develop a theory, identifying problems with current practice, justifying current practice, making judgments or determining what others in similar situations are doing (Orodho, 2009).

Since the study seeks to collect information that will investigate the relationship between balanced scorecard adoption and organizational performance of state corporations in Kenya and describe the world as it exists, then this study has adopted descriptive research design. In support of the same, other researchers have consistently used this design (Bani-Hani, & AL-Hawary, 2009; Charan, Drotter & Noel, 2005).

### **3.4 Target population**

Target population or universe refers to the complete listing of all the items or individuals with at least one common thing in any field of study (Kothari, 2011). Therefore, population is the largest group that the study samples are taken. The target population for this study was all the 32 State corporations that have implemented balanced scorecard as listed in the Appendix III. This made up of the unit of analysis for this study where the sample was taken for as representation of the entire population

The validity of the data collected depended on the right respondents who possessed the right characteristics or have the right information. Balanced scorecard adoption decision is a preserve of top management such as CEO`s and other top managers who set policies for acquiring and integrating resources for the organization (Kelly & Mark, 2013). Thus, Chief Executive Officers, Finance Directors, Human Resource Directors and Operations Directors or their equivalent formed

the unit of observation. This study adopted stratified sampling technique to select 96 top Managers which were considered to be the population for this study.

### **3.5 Sample and sampling technique**

According to Cooper and Schindler (2014), a sample is a subset of the population which is a true representative of the entire population to be studied. Sampling is a systematic selection of a representative number of elements out of the specific target population (Kothari, 2011; Cooper & Schindler, 2014). The sample population for stage one of this study targeted only senior management from each institution comprising the Chief Executive Officers, Finance Directors, Human Resource Directors and Operations Directors or their equivalent. This constituted a sample size of 96 managers from the state corporations listed in Appendix III.

The researcher used the organization as the unit of measurement and only administered the questionnaire to three different managers per organization to avoid single respondent bias. Since certain parameters in this research like organization performance cannot be entirely perceptual, stage two involved the use of secondary data collection tool. The secondary data collection tool was used to collect real performance data on organizations performance from twenty organizations which on analysis was used to corroborate the findings of stage one. For the purpose of this study, sample sizes of the top management were determined using the Kothari (2011) formulae as follows;

$$n = \frac{Z^2 \cdot \sigma(1 - \sigma)}{e^2}$$

Where:

- n is the sample size
- Z is the Z-score and for the purpose of this study were be 1.96 in order to have a 95% confidence level

- $\sigma$  is the Standard of Deviation and to be safe the decision is to use 0.5 as this is will ensure that the sample will be large enough.
- $e$  is the margin of error and for the purpose of this study

### **3.6 Data collection instruments**

The choice of a tool and instrument depends mainly on the attributes of the subjects, research topic, problem question, objectives, design, expected data and results (Kamau, 2010). This study employed questionnaires in stage one and secondary data collection tool in stage two respectively. The questionnaires were dropped and picked. The questionnaires were designed in 5 point Likert type measurement as it has the capacity to measure the attitude of the respondents easily.

Revilla, Saris, and Krosnick (2014) state that agree – disagree scale can be used to measure a wide range of constructs. The quantitative data was then coded by giving each response a number or letter code and then entered into the computer. Missing responses or double entry of the same data was discarded for those particular items during coding and reverse coded items were assigned opposite codes to the items. The use of questionnaires was informed by degree of confidentiality been upheld, time saved and ease of administration which allowed the researcher to collect qualitative data, which was analyzed qualitatively using descriptive and inferential statistics as proposed by Kothari (2014)..Stage two data was analyzed using trends and t- test for the data from secondary data collection tool

### **3.7 Pilot study**

Blumberg, Cooper and Schindler (2008) posit that a pilot test is conducted to detect weaknesses in design and instrumentation and to provide proxy data for selection of probability sample. Questionnaires were pre-tested to ensure they were appropriate in length, containing the right questions (relevant) and whether they measure what they purport to measure. Kothari (2004) suggests that 1% of the study population is adequate

for pilot testing. However, this depends on the size of the population. This study was carried out in two phases, namely a pilot study and final study. During the pilot study, the questionnaire were pretested with a selected sample from the population the questionnaires were validated and corrections made before the final survey were conducted

The questionnaires derived from the study variable which were issued to a selected group of respondents to allow improvements on the erred or ambiguous areas, be it in wording issues or measurement, before they were administered to the intended participants. The purpose for doing so was to ensure what was intended to measure is what is exactly measured and reported. In other words, the primary aim of the pilot study was to test the reliability and validity of the research instruments (Saunders *et al.*, 2014). The pilot study has enhanced the capacity of the researcher to detect weakness in design of the instrument used and thereby providing the necessary correction and adjustment to the data instrument accordingly

Mugenda and Mugenda (2008) affirmed that a sample of 10 to 15 per the groups involved will be sufficient for piloting. In this case, the researcher selected a pilot group of 10 respondents from the target population to test the reliability and validity of the research instrument used by the study. The clarity of the research instruments to the respondents was established so as to enhance the instrument's validity and reliability. A group of 10 senior managers who had similar characteristics were thought to be fitting for pilot study which enabled the researcher to be familiarized with the research instruments and its administration procedure as well as identifying items that required modification. For consistency and reliability check, Cronbach's alpha was computed as shown

Cronbach's alpha is a coefficient of internal consistency. Suppose that we assume a sum of K components (K-items or test lets). Care was taken to ensure that the participants in the pilot study are not part of the final sample. Reliability test was conducted to determine the accuracy of the questionnaire in providing the required information.

### 3.7.1 Reliability of the test

The reliability of an instrument refers to its ability to produce consistent and stable measurement. Reliability tests the extent of accuracy and unreliability the extent of inaccuracy. The most common reliability coefficient the Cronbach's alpha ( $\alpha$ ) was used to estimate internal consistency by determining how all items on a test relate to all other items and to the total test. The reliability is expressed as a coefficient between 0 and 1.00. The higher the coefficient, the more reliable is the test. The recommended value of 0.7 was used as a cut-off of reliabilities. Cronbach's alpha is a general form of the Kuder-Richardson (K-R) 20 formulas used to access internal consistency of an instrument based on split-half reliabilities of data from all possible halves of the instrument. The Kuder-Richardson (K-R) 20 is based on the following formula

KR-20 is  $[n/n-1] * [1-(\Sigma p*q)/Var]$

n = sample size for the test,

Var = variance for the test,

p = proportion of people passing the item,

q = proportion of people failing the item,

$\Sigma$  = sum up (add up).

Multiply each question's p by q, and then adding them .Further, reliability test was carried during the main study and the results presented in chapter four of this study. Therefore the Cronbach Alpha model was adopted as it was deemed to be good and adequate for reliability and further analysis

### **3.7.2 Validity test**

Validity test was used to check whether questionnaire is measuring what it purports to measure. Content validity was used to check the appropriateness of the content of the questionnaire. In other words, do the questions accurately assess what the researcher wanted to know? Pilot testing of the research instrument assured content validity. Bryman and Bells (2015) advice that however pressed for time you are, do your best to give the questionnaire a trial run, as without a trial run, you have no way of knowing your questionnaire will succeed

Face validity is a subjective conclusion on the operationalization of a construct (Drost, 2011). The respondents were asked to comment on the wordings of the questions, sequence and layout to establish the 'face validity' criterion. Further, convergent, discriminant validities were conducted during the final study. In regard to this, a few corrections were suggested for some of the questions by the respondents. The questions in the questionnaire were modified before the final study was carried out. Further, results from the pilot showed that the questions were well understood by the respondents thus few changes were made to the questionnaire.

Adequacy of the sample was tested using Kaiser-Meyer-Olkin measures and Bartlett's test of Sphericity. Content validity of the study tool was established through use of BSC experts, and statisticians who thoroughly reviewed the tools and rated the extent of validity of the questionnaire. The ratings were then aggregated and averaged to arrive at a single index. The comments from the reviewers were also incorporated in the study tool. This helped to remove any irrelevant question, eliminate any ambiguous or unclear sentences in the study tool. Their input were also used to modify the study tool to a language that could easily be understood and answered to increase response rate and also clarity of the tool to the respondents.

### **3.8 Data processing and analysis**

Data analysis was done in two stages. Stage one involved analysis quantitative analysis of data from the questionnaires. Analysis of secondary data using trend analysis and t- test Quantitative data from questionnaires were first edited. The blank responses were decoded, while the usable questionnaire data coded. This was then keyed into the computer and SPSS Version 22 used to analyze them. Diagnostic tests were done to ensure quality of data. The tests done include normality test on residuals to test correlations between predictor variables, heteroscedasticity test to check if the errors do not have a constant variance, and multicollinearity test to determine the correlation between predictor variables. Hypothesis testing was done using ANOVA F-test and a multiple regression analysis for the combined effect of rationale for BSC adoption and organizational performance of state corporations in Kenya.

#### **3.8.1 Measurement of study variables**

The study investigated the relationship between balanced scorecard adoption rationale and organizational performance of state corporations in Kenya. BSC adoption rationale was measured by three critical areas which organizations should observe rational choice rationale, institutional rationale, management fashion rationale. Organizational performance was measured using five critical areas that organizations need to deliver or enhance on for their success; revenue/profits, return on investment, cost reduction, improved quality, customer satisfaction, employee productivity, employee satisfaction. As shown in table 3.1

**Table 3.1: Operationalization of the variables**

Variables	Measure	Scale
Rational Choice ( $X_1$ )	<ul style="list-style-type: none"> <li>• Efficiency</li> <li>• Effectiveness tool</li> <li>• Measurement</li> </ul>	Ordinal
Institutional Rationale ( $X_2$ )	<ul style="list-style-type: none"> <li>• <b>Coercive</b> <ul style="list-style-type: none"> <li>- Customer/clients expectation</li> <li>- Organizations we depend on</li> </ul> </li> <li>• <b>Normative</b> <ul style="list-style-type: none"> <li>- Professional networks</li> <li>- Partners adoption</li> </ul> </li> <li>• <b>Mimetic</b> <ul style="list-style-type: none"> <li>- Adoption by competitors</li> <li>- Perception of competitors</li> </ul> </li> </ul>	Ordinal
Management Fashion ( $X_3$ )	<ul style="list-style-type: none"> <li>• Consultants/Experts Influence</li> <li>• Top management Pressure</li> <li>• Performance problems</li> <li>• Appeal in market</li> <li>• Rhetoric</li> </ul>	Ordinal
Culture( $M$ )	<ul style="list-style-type: none"> <li>• Team Orientation</li> <li>• Involvement</li> <li>• Shared beliefs and values</li> <li>• Shared mission</li> <li>• Adaptability</li> </ul>	Ordinal

### 3.8.2 The model

Kothari (2009), explained that multivariate analysis were suitable whenever there were single dependent variable and several independent variables. The present study aimed to predict about dependent variable (Organizational Performance) based on the covariance of all the independent variable. The study adopted multiple regression analysis .The assumed analytical method for the data is the regression model specified in two stages as follows;

Part 1: Rationale for BSC adoption and organizational performance

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon_i \quad \text{.....equation 1}$$

Part 2: Moderating effect of organizational culture on rationale for BSC adoption and organizational performance

$$Y = \beta_0 + \beta_1 X_{comp} + \beta_2 M + \beta_3 (X_{comp} \times M) + \epsilon_i \quad \text{.....equation 2}$$

Where:-

$Y$  = Organizational performance (Dependent Variable)

$X_1$  = Rational choice rationale (Independent Variable)

$X_2$  = Institutional rationale (Independent Variable)

$X_3$  = Management fashion rationale (Independent Variable)

$M$  = Organizational culture (Moderating Variable)

$X_{comp}$  = Computed value of X

$\epsilon_i$  = Error Term

Stage two involved analysis of data from secondary data collection sheets using trend analysis and t- test.

**Table 3.2: Operationalization of the variables**

Objective	Hypotheses	Analytical Models	Interpretation
To establish the relationship between rational choice for adoption of BSC and organizational performance of state corporations in Kenya	H <sub>1</sub> : There is a significant relationship between rational choice rationale for adoption of BSC and organizational performance of State corporations in Kenya	$Y = \beta_0 + \beta_1 X_1 + \varepsilon_i$	R <sup>2</sup> will show model explanatory power.
To establish the relationship between institutional rationale for adoption of BSC and organizational performance of state corporations in Kenya	H <sub>2</sub> : There is a significant relationship between institutional rationale for adoption of BSC and organizational performance of state corporations in Kenya	$Y = \beta_0 + \beta_2 X_2 + \varepsilon_i$	R <sup>2</sup> will show model explanatory power.
To establish the relationship between management fashion rationale for adoption of BSC and organizational performance of state corporations in Kenya	H <sub>3</sub> : There is a significant relationship between management fashion rationale for adoption of BSC and organizational performance of state corporations in Kenya	$Y = \beta_0 + \beta_3 X_3 + \varepsilon_i$	R <sup>2</sup> will show model explanatory power.
To determine the combined effect of rationale for BSC adoption and organizational performance of state corporations in Kenya	H <sub>4</sub> : There is a significant relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya	$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon_i$	R <sup>2</sup> will show model explanatory power.
To assess the moderating effect of organizational culture on the relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya	H <sub>a</sub> : Organizational culture significantly moderates the relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya.	$Y = \beta_0 + \beta_1 X_{comp} + \beta_2 M + \beta_3 (X_{comp} \times M) + \varepsilon_i$	R <sup>2</sup> will show model explanatory power.

$Y$  = Organizational performance,  $X_1$  = Rational choice rationale,  $X_2$  = Institutional rationale,  $X_3$  = Management fashion rationale  $M$ = Organizational culture,  $X_{comp}$ = Computed value of X,  $\varepsilon_i$  = Error Term

### 3.8.3 Regression diagnostic tests

**Normality Test.** Prior to regression analysis, all variables was subjected to normality check. To test for normality test Kolmogorov Smirnov test was used, the test assumes that the data is normally distributed against the alternative which states that the data is not normally distributed (Ghasemi, Syedmoradi & Zahediasl, 2010). If the p value is greater than 0.05 then the data is normally assumed otherwise there is need for data transformation depending on the level of skewness

**Multicollinearity.** According to William *et al.*, (2013), multicollinearity refers to the presence of correlations between the predictor variables. In severe cases of perfect correlations between predictor variables, multicollinearity can imply that a unique least squares solution to a regression analysis cannot be computed. Multicollinearity inflates the standard errors and confidence intervals leading to unstable estimates of the coefficients for individual predictors. Multicollinearity poses a real problem for the researcher because; it severely limits the size of the proportion of variance which can be accounted for by the regression or extraction (R). Further, it makes determination of the importance of a given predictor difficult because the effects of the predictors are confounded due to the correlation among them

**Heteroscedasticity Test.** It is usually assume that the error terms are independent unless there is a specific reason to think that this is not the case. Usually violation of this assumption occurs because there is a known temporal component for how the observations were drawn. Hence in a regression equation they are assumed to have a common variance within cross-sectional units. If the errors do not have a constant variance across units we say they are heteroscedastic. (Stevenson, 2004). The hetttest command calculates Breuch Pagan for group wise heteroscedasticity in the residuals

## **CHAPTER FOUR**

### **RESEARCH FINDINGS AND DISCUSSION**

#### **4.1 Introduction**

This chapter presents the responses from target state corporations that formed the sample of the study whose main objective was to determine relationship BSC adoption rationale and organizational performance of state corporations in Kenya. Data was analyzed through descriptive and inferential statistics and presented using tables and charts. The study made valid replicable inferences on the data in various contexts. At the end of every variable described, analysis was conducted to statistically determine whether the independent variables influence the dependent variable.

#### **4.2 Response rate and demographic profile of respondents**

##### **4.2.1 Survey response for stage one study**

The number of questionnaires administered to respondents was 96. Out of the 96, 92 fully completed questionnaires were returned. This represented a response rate of 96%. According to Berman, Tan, and Cheng (2015), a response rate of 60% and above is rated as appropriate for analysis. Therefore, a response rate of 96% for this study was found to be appropriate. Table 4.1 shows the response rate results.

**Table 4.1: Response rate**

<b>Questionnaires</b>	<b>Frequency</b>	<b>Percentage</b>
Returned	92	96
Not-returned	4	4
<b>Total</b>	<b>96</b>	<b>100</b>

The respondents were asked to indicate their gender, the number of employees in their company, their job position and education level.

### **4.3 Results of the pilot study**

#### **4.3.1 Reliability test**

A pilot study was undertaken to pretest data collection instrument for validity and reliability. The questionnaires were issued to a selected group of respondents to allow improvements on the erred or ambiguous areas, be it in wording issues or measurement, before they were administered to the intended participants (Kothari, 2011). The pilot study enhances the capacity of the researcher to detect weakness in design of the instrument used and thereby providing the necessary correction and adjustment to the data instrument accordingly. The validity of the questionnaires was determined using Variable validity method. Variable validity is the degree to which test measurers an intended hypothetical Variable (Mugenda, 2008). Panels of experts were used to examine the items and decide what that specific item is intended to measure (Mugenda, 2008). The recommendations from the strategic management experts and the pilot study respondents were used to improve on data collection instruments. The reliability of the questionnaires was determined using test retest method.

Stable and consistent ability of a research instruments yields reliability of it. In the current study, Cronbach's Alpha was used to test the reliability of the research instrument. It is argued that the reliability coefficient ranges between 0 and 1 and the closer it is to 1 the

more reliable it is; indeed when a research instrument exceeds 0.7 then the research instrument is reliable. In the current study all the variables had coefficient ranging from 0.8 to 0.9, which indicated that the research instrument was reliable. Table 4.2 shows a summary of reliability results

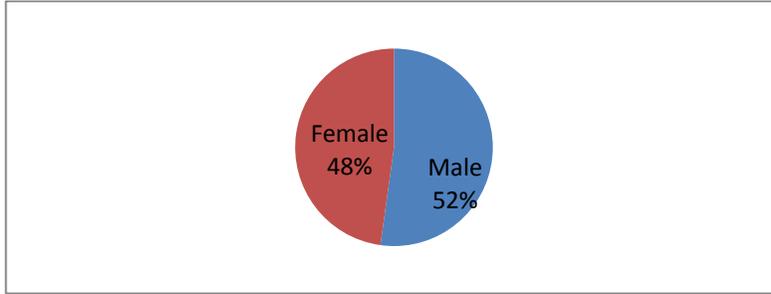
**Table 4.2: Summary of reliability coefficient of the study variables**

<b>Variables</b>	<b>Cronbach's Alpha</b>	<b>Number of Items</b>	<b>Conclusion</b>
Rational Choice Rationale	0.763	4	Reliable
Institutional Rationale	0.759	7	Reliable
Management Fashion Rationale	0.742	5	Reliable
Organizational Culture	0.834	7	Reliable
Organizational Performance	0.965	8	Reliable

The most common reliability coefficient is Cronbach's alpha which estimates internal consistency by determining how all items on a test relate to all other items and to the total test-internal coherence of data. Using Cronbach's alpha, reliability is expressed as a coefficient between 0 and 1.00. The higher the coefficient, the more reliable is the test. The findings from the pilot study on Table 4.2 indicate that rational choice rationale, institutional rationale, management fashion rationale, organizational culture and organizational performance had Cronbach's alpha of 0.763, 0.759, 0.742, 0.834 and 0.965 respectively. This implies that all the variables depicted a value of Cronbach's alpha above the value of 0.7 thus it is concluded that the study variables were reliable.

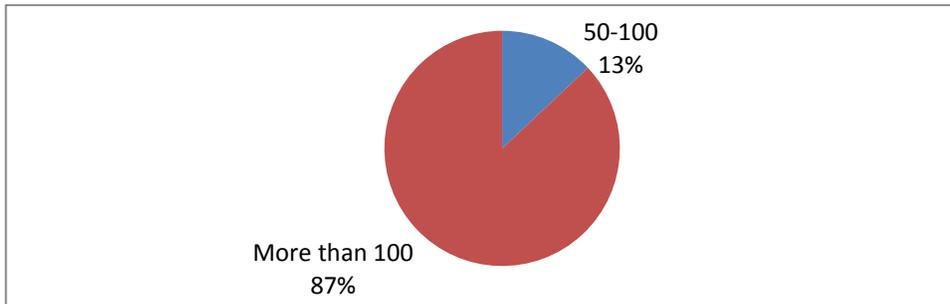
#### **4.3.2 Demographic profile of respondents for stage one study**

The study first sought to determine the gender of the respondents. The results are shown in figure 4.1.



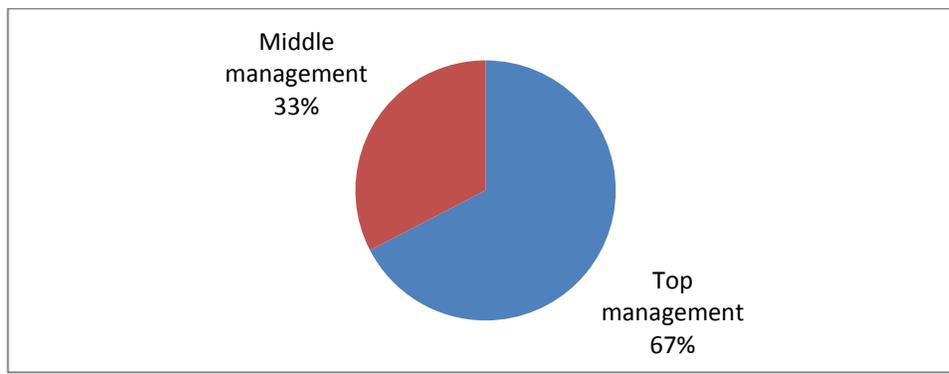
**Figure 4.1: Gender of the Respondents for stage one study**

The results in figure 4.1 show that majority of the respondents (52%) who were managers in their companies were male. Female represented 48% of the respondents. The results corroborate with those of Sundin (2010) on masculinization of the public sector, who found that organizational practice has not changed on the male label of management in the organization, consequently, organizational practice has not influenced the male label which management has in society. The respondents were then asked to indicate the number of employees in the organization which is indicative of the size of the organization. Results are shown in figure 4.2.



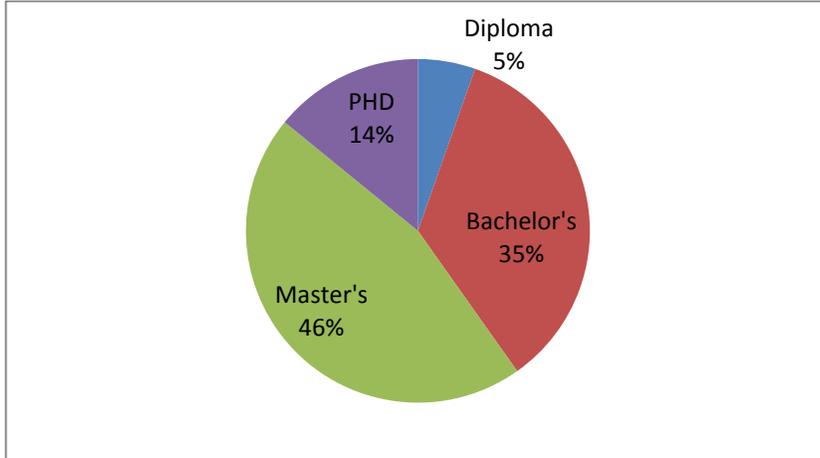
**Figure 4.2: Number of Employees in the Organizations for stage one study**

Results in figure 4.2 shows that majority of the respondents who were 87% indicated that their organization has more than 100 employees while 13% indicated that their organization has 50-100 employees. This implies that most of the organizations are large in size. Eilert, Walker and Dogan (2017) indicated that the prevailing size of an organization has a significant positive effect on the organizational performance. Respondents were then asked to indicate their job positions. Results are presented in figure 4.3.



**Figure 4.3: Job position of respondents for stage one study**

The results in figure 4.3 show that most of the respondents who were 67% held top management positions in their respective organizations. Those in middle management were represented by 33%. This implied that all of the respondents are in the top or senior level of management in their organizations. This could indicate that as per this study, the responses given are valid since this was the targeted group by this research. The top managers are the ones involved in decision making for adoption of management practices such as BSC in their organizations. They have valid information regarding the adoption of BSC and organizational performance. The respondents had further been requested to indicate their highest level of education. The results are as shown in figure 4.4.

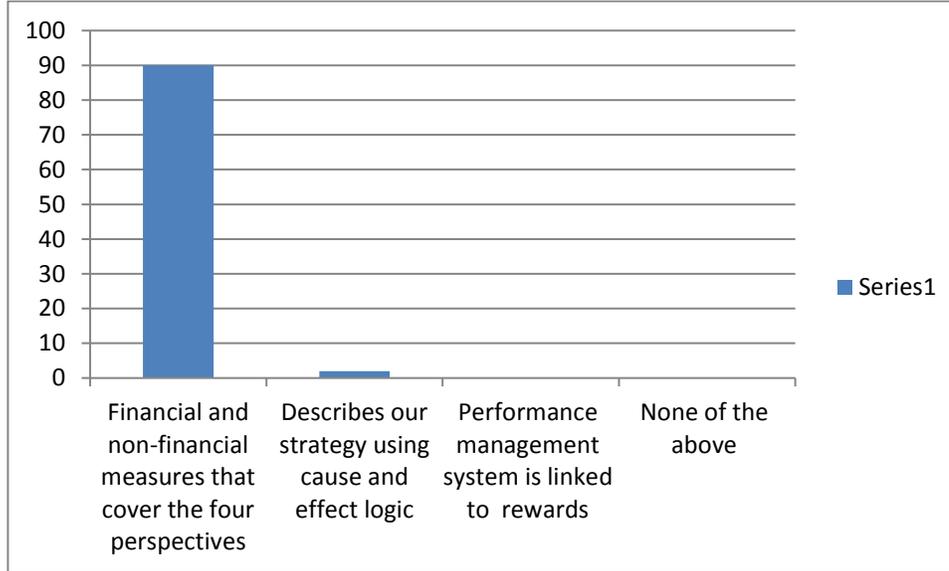


**Figure 4.4: Level of education of respondents for stage one study**

The findings in figure 4.4 indicated that most of the respondents (46%) had attained a master's degree, 35% had bachelor's degree, 14% had PhD and 5% had diploma as the highest education they had attained. Even though many scholars (Senior & Flemming, 2006; Letting, 2009; Mulube, 2009) have indicated that leadership is not based on level of education, there is need to have employees with high qualifications in all levels of management. BSC is very complex and require people with high level of education and skills. The findings are in support of this since the cumulative percentage of respondents with at least a Bachelor's Degree is 95 % showing a high level of education.

#### **4.4 Type of BSC adopted for stage one study**

The respondents were also asked to indicate the performance management system implemented in their organization. The results are as shown in figure 4.5



**Figure 4.5: Type of BSC adopted**

The figure shows indicated that most organizations had adopted performance management system that contains financial and non-financial measures that cover the four perspectives of financial, customer, internal processes, learning and growth. Only 2 organizations have advance to the next level of BSC. Lee and Yang (2011) reiterate that Type I is the initial stage of the BSC in an organization, combining financial and non-financial measures, covering the four perspectives (financial, customer, internal processes, learning and growth). This BSC type is only used to assess organizational performance, and it may establish indicators that show a cause and effect relationship.

Type II BSC takes the Type I BSC to the next step and in addition to considering the financial and non-financial measures; it describes the strategy and the measures that use the cause and effect relationships and introducing the strategy map. The BSC is still a performance measurement system, only with measures linked to strategy. Type III BSC fully fit Kaplan and Norton’s strategic performance management system, who suggest that a successful BSC should be a change project, not a metrics project as in type I and II. This

could explain why most of the state corporations in Kenya are not getting performance improvement as a result of adoption of BSC.

#### **4.5 Descriptive results for stage one study**

Descriptive analysis was conducted for all the study variables which included rational choice rationale, institutional rationale, management fashion rationale, organizational culture and organizational performance.

##### **4.5.1 Rational choice rationale and organizational performance**

The first objective of the study was to establish the relationship between rational choice rationale for adoption of BSC and organizational performance of state corporations in Kenya. For the purposes of interpretation 4 & 5 (Agree and strongly agree) were grouped together as agree, 1 & 2 (Strongly disagree and Disagree) were grouped as disagree while 3 was neutral. The results of this study are as depicted in Table 4.2.

**Table 4.3: Descriptive analysis on rational choice rationale**

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	Mean	SD
Our organization adopted the balanced score card in order to achieve efficiency in our operations	3.30%	0.00%	9.80%	40.20%	46.70%	4.27	0.89
Our organization adopted balanced scorecard because it is an effective tool	3.30%	6.50%	22.80%	40.20%	27.20%	3.82	1.02
Our organization adopted balanced scorecard to be able to more improve performance measurement	3.30%	9.80%	3.30%	46.70%	37.00%	4.04	1.05

The results as indicated in Table 4.2 show that majority of the respondents 86.90% agreed that their organization adopted the balanced score card in order to achieve efficiency in their operations. This confirms Farneti and Guthrie (2009) assertion that a growing number of public sector organizations worldwide are adopting BSC for performance management to achieve objectives of efficiency; effectiveness and economy. The results also showed that majority of the respondents 67.40% agreed that their organization adopted balanced scorecard because it is an effective tool, confirming Rigby and Bilodeau (2013) assertion that BSC is an effective tool in enhancing organizational performance. The results indicated that majority of the respondents 83.70% agreed that their organization adopted balanced scorecard to be able to improve performance measurement. This confirms (Gumbus, 2005) assertion that majority of companies adopt the BSC or its variations as a main performance measurement tool.

The Table 4.2 further shows that low standard deviation and a means was scored on all the factors and this indicates a low variation. This means that the questions were well

answered and answers given were accurate and reliable. The study hence deduced that balanced scorecard is adopted to improve efficiency, because of its effectiveness and to be able to improve performance measurement.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's test of sphericity were conducted. The Kaiser-Meyer-Olkin Measure of sampling adequacy is a statistic that indicates the proportion of variance in the variables that might be caused by underlying factors. High values (close to 1.0) generally indicate that a factor analysis may be useful with the data. If the value is less than 0.50, the results of the factor analysis probably won't be very useful. Bartlett's test of sphericity tests the hypothesis that the correlation matrix is an identity matrix, which would indicate that the variables are unrelated and therefore unsuitable for structure detection. Small values (less than 0.05) of the significance level indicate that a factor analysis may be useful with the data. The results of the KMO and Bartlett's Test for rational choice rationale are summarized in Table 4.3.

**Table 4.3 Rational choice KMO and Bartlett's Sphericity tests**

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</b>		<b>0.575</b>
Bartlett's Test of Sphericity	Approx. Chi-Square	12.295
	df	6
	Sig.	<b>0.005</b>

Findings in Table 4.3 showed that the KMO statistic was 0.575 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.50 (Field, 2000). In addition to the KMO test, the Bartlett's Test of sphericity was also highly significant (Chi-square = 12.292 with 6 degree of freedom, at **p = 0.005**). These results provide an excellent justification for further statistical analysis to be conducted.

Factor analysis was conducted on statements regarding rational choice rationale and all the indicators attracted a coefficient of more than 0.5 hence were retained for further analysis in regression. Results of the factor analysis are presented in Table 4.4.

**Table 4.4: Rational choice rationale factors analysis component matrix**

<b>Statements</b>	<b>Components</b>
Our organization adopted the balanced scorecard in order to achieve efficiency in our operations	0.554
Our organization adopted balanced scorecard because it is an effective tool	0.742
Our organization adopted balanced scorecard to be able to improve performance measurement	0.779

According to Torres-Reyna (2010), factor loading values that are greater than 0.4 should be accepted and values below 0.5 should lead to collection of more data to help researcher to determine the values to include. Values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great, and values above 0.9 are superb.

The results indicate a component matrix of 0.554, 0.742, and 0.779 for the statements our organization adopted the balanced score card in order to achieve efficiency, organization adopted balanced scorecard because it is an effective tool, our organization adopted balanced scorecard to be able to more improve performance measurement. The results indicate a coefficient of more than 0.5, hence were retained for further analysis in regression

#### 4.5.2 Institutional rationale and organizational performance

The second objective of the study was to establish the relationship between institutional rationale for adoption of BSC and organizational performance of state corporations in Kenya. Table 4.5 shows the results of descriptive analysis whereby for the purposes of interpretation 4 & 5 (Agree and strongly agree) were grouped together as agree, 1 & 2 (Strongly disagree and Disagree) were grouped as disagree while 3 was neutral.

**Table 4.5: Descriptive analysis for institutional rationale**

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	SD
Our customers/clients expect our organization to have BSC	9.80%	16.30%	3.30%	47.80%	22.80%	3.58	1.28
Organizations we depend on expect that we have BSC	13.00%	16.30%	3.30%	42.40%	25.00%	3.50	1.37
BSC was adopted due to influence from professional networks	3.30%	9.80%	6.50%	54.30%	26.10%	3.90	1.01
BSC has been widely adopted by our partners	12.00%	9.80%	13.00%	29.30%	35.90%	3.67	1.37
Our main competitors who have BSC have benefited a lot	9.80%	16.30%	6.50%	43.50%	23.90%	3.55	1.29
Competitors who have adopted BSC are perceived favorably by customers/clients	3.30%	26.10%	0.00%	40.20%	30.40%	3.68	1.25

The results as indicated in Table 4.5 show that majority of the respondents 70.6% agreed that their customers/clients expect their organization to have balanced scorecard. . The results also showed that majority of the respondents 67.40% agreed that the organizations they depend on expect that they have balanced score card. This confirms Yulia (2016) assertion that organizations often adopt and use new organizational models ceremonially not for the sake of greater efficiency but for the purpose of signaling the availability of practices which enhance the organizations' image and legitimize them in their social contexts. 80.4% of the respondents agreed that they adopted BSC due to influence from professional networks. This confirms Craig and Allen, (2007) Assertion that the normative

pressures come from the urge to have better governance for Corporations as the business environment has become more volatile, less predictable, more globalized.

The results also showed that majority 70.6% of the respondents agreed that their main competitors who have adopted balanced scorecard are perceived favorably by customers/clients, a further 65.2% agreed that balanced scorecard has been widely adopted by our customers/clients, 67.4% agreed to the statement our main competitors who have balanced scorecard have benefited a lot, 70.6% confirm the statement our main competitors who have adopted balanced scorecard are perceived favorably by customers/clients. All these findings confirm Abrahamson and Rosenkopf (1993) assertion that bandwagon pressure or sheer number of organizations adopting an innovation can result in a pressure that causes other organizations to adopt, without evaluating the efficiency or return of the innovation

The Table 4.5 further shows that low standard deviation and means was scored on all the factors and this indicates a low variation. This means that the questions were well answered and answers given were accurate and reliable. The study hence deduced that balanced scorecard is adopted because of customers/clients expectations, demand from organizations institutions depend on, institutional cultures, urge for better governance, it has been adopted by customers, has been adopted by competitors, those who have adopted it are considered favorably by their clients. Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's test of sphericity were conducted for institutional rationale. Table 4.6 shows the results.

**Table 4.6: Institutional rationale KMO and Bartlett's Sphericity tests**

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</b>		<b>0.514</b>
Bartlett's Test of Sphericity	Approx. Chi-Square	36.289
	df	21
	Sig.	<b>0.002</b>

Findings in Table 4.6 showed that the KMO statistic was 0.514 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5. In addition to the KMO test, the Bartlett's Test of sphericity was also highly significant (Chi-square = 36.289 with 21 degree of freedom, at  $p = 0.002$ ). These results provide an excellent justification for further statistical analysis to be conducted. Factor analysis was conducted on statements regarding institutional rationale as indicated in Table 4.7.

**Table 4.7: Institutional rationale factors analysis component matrix**

Statements	Components
Our customers/clients expect our organization to have balanced scorecard	0.658
Organizations we depend on expect that we have balanced score card	0.561
Balanced scorecard has been adopted by our organization due to influence of professional networks	0.581
Balanced scorecard has been widely adopted by our customers/clients	0.548
Our main competitors who have balanced scorecard have benefited a lot	0.527
Our main competitors who have adopted balanced scorecard are perceived favorably by customers/clients	0.564

The results indicate a component matrix of 0.658, 0.561, 0.581, 0.548, 0.527, and 0.564. for the Statements our customers/clients expect our organization to have balanced scorecard, organizations we depend on expect that we have balanced score card, balanced scorecard has been adopted by our organization to due to influence from professional networks, balanced scorecard has been widely adopted by our customers/clients, our main competitors who have balanced scorecard have benefited a lot, our main competitors who have adopted balanced scorecard are perceived favourably by customers/clients,

respectively. The results indicate a coefficient of more than 0.5, hence were retained for further analysis in regression

#### 4.5.3 Management fashion rationale and organizational performance

The third objective of the study was to establish the relationship between management fashion rationale for adoption of BSC and organizational performance of state corporations in Kenya. Descriptive analysis was conducted for Statements on management fashion rationale. Results are presented in Table 4.8 where for interpretation purposes 4 & 5 (Agree and strongly agree) were grouped together as agree, 1 & 2 (Strongly disagree and Disagree) were grouped as disagree while 3 was neutral.

**Table 4.8: Descriptive analysis for management fashion rationale**

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	Mean	SD
Our organization adopted BSC because of influence of management experts/consultants	9.80%	14.10%	0.00%	50.00%	26.10%	3.68	1.28
Our organization adopted BSC because influence from our top management	10.10%	3.40%	4.50%	66.30%	15.70%	3.74	1.09
Our organization adopted BSC in response to performance related problem experienced	6.50%	6.50%	9.80%	45.70%	31.50%	3.89	1.12
Our organization adopted BSC because it is appealing in the market	9.80%	19.60%	2.20%	48.90%	19.60%	3.49	1.30
We adopted BSC because of the rhetoric's used to market its usefulness	13.00%	29.30%	1.10%	31.50%	25.00%	3.26	1.44

The results as indicated in Table 4.8 show that majority of the respondents 76.1% agreed to the statement that their organization adopted balanced scorecard because of influence of management experts/consultants, confirming Madsen and Slåtten ,(2015) assertion that a constellation of actors called the fashion setting community such consultants, gurus, and business media are responsible for the launching and popularizing fashions as

supply-side actors disseminating and promoting new ideas via a number of different diffusion channels, such as conferences/seminars, business media, educational programs, and the internet.

The results also further showed that majority of the respondents who were 82% agreed that their organization adopted balanced scorecard because of influence from top management, confirming that organizations and managers may become exposed to ideas via management fashion-setters and decide to adopt fashionable ideas to keep up with the fad (Madsen & Slåtten, 2015). Additionally, the results showed that majority of the respondents 87.2% agreed that their organization adopted balanced scorecard in response to performance related problem experienced, confirming Mol and Birkinshaw, (2009) assertion that these new techniques have importance for increasing productivity, enabling customer satisfaction and maintaining the competition power

Further, the results indicated that majority of the respondents 68.5% agreed that their organization adopted balanced scorecard because it is appealing in the market, other results indicated that majority of the respondents 56.5% adopted BSC because of the rhetoric's used to market on its usefulness confirming Leiringer and Cardellino, (2008) assertion that organizations adopt innovations for impression management

The Table 4.8 further shows that low standard deviation and means was scored on all the factors and this indicates a low variation. This means that the questions were well answered and answers given were accurate and reliable. The study hence deduced that balanced scorecard is adopted because of influence of management experts/consultants, influence from our top management, response to performance related problem experienced, it is appealing in the market, rhetoric's used to market its usefulness. Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's test of sphericity were conducted for management fashion rationale. Table 4.9 show the results

**Table 4.9: Management fashion KMO and Bartlett's Sphericity tests**

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</b>		<b>0.648</b>
Bartlett's Test of Sphericity	Approx. Chi-Square	25.168
	Df	10
	Sig.	<b>0.005</b>

The results in Table 4.9 revealed that KMO statistic was 0.648 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5 (Field, 2000). In addition to the KMO test, the Bartlett's Test of sphericity was also highly significant (Chi-square = 25.168 with 10 degree of freedom, at  $p = 0.005$ ). These results provide justification for further statistical analysis to be conducted. Further, Factor analysis was conducted on Statements regarding management fashion rationale. Results of the factor analysis are presented in Table 4.10.

**Table 4.10: Management fashion rationale factors analysis component matrix**

Statements	Components
Our organization adopted balanced scorecard because of influence of management experts/consultants	0.521
Our organization adopted balanced scorecard because influence from our top management	0.730
Our organization adopted balanced scorecard in response to performance related problem experienced	0.622
Our organization adopted balanced scorecard because it is appealing in the market	0.786
We adopted BSC because of the rhetoric's used to market its usefulness	0.778

The results indicate a component matrix of 0.521, 0.730, 0.622, 0.786, 0.778, for the statements our organization adopted balanced scorecard because of influence of management experts/consultants, our organization adopted balanced scorecard because influence from our top management, our organization adopted balanced scorecard in response to performance related problem experienced, Our organization adopted balanced scorecard because it is appealing in the market, we adopted BSC because of the rhetoric's

used to market its usefulness respectively. The results indicate a coefficient of more than 0.5, hence were retained for further analysis in regression.

#### 4.5.4 Moderating effect of organizational culture

The fourth objective was to assess the moderating effect of organizational culture on the relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya. Descriptive analysis was conducted for Statements on organizational culture. Results are presented in Table 4.11.

**Table 4.11: Descriptive analysis for organizational culture**

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	Mean	SD
Teamwork among employees is practiced in our organization	3.30%	9.80%	3.30%	64.10%	19.60%	3.87	0.95
Our organization is innovative and experiment new ideas	5.40%	3.30%	7.60%	66.30%	17.40%	3.87	0.93
Our organization staff have shared mission	3.30%	8.70%	16.30%	48.90%	22.80%	3.79	1.00
In our organization staff have shared belief and values	5.40%	7.60%	7.60%	48.90%	30.40%	3.91	1.09
Our organization one feels a personal sense of accomplishment	3.30%	5.40%	6.50%	66.30%	18.50%	3.91	0.87
Our organization staff focus on outcomes	5.40%	8.70%	4.30%	48.90%	32.60%	3.95	1.10

The results as indicated in Table 4.11 show that majority of the respondents 83.7% agreed that teamwork among employees is practiced in their organization, confirming the assertion that companies with a team-oriented culture highlight cooperation and collaboration among employees. The results further indicate that majority 83.7% of the respondents agreed that their organization is innovative and experiments new ideas, confirming Preziosi et al. (2010) assertion of direct relationship of organizational culture to successful implementation of the BSC for companies that are adaptable, flexible, and experiment with new tools and ideas.

In addition, majority 71.7% of the respondents agreed that their organization had a shared mission. A further 79.3% of the respondents agreed that staff have shared belief and values confirming Denison's (1997) assertion that when the organization's culture, comprising shared beliefs, values, and symbols, becomes internalized, consensus and coordination are more effectively achieved. 84.8% of the respondents agreed with the statement our organization one feels a personal sense of accomplishment confirming Strong et al (1999) assertion that organizational and physical context serve as the impetus for tasks and activities, and considerably influence workers performance.

A further of 81.5% of the respondents agreed with the statement our organization staff focus on outcome, confirming Charaf and Bescos (2013) assertion that factors such as innovation, outcome orientation, team orientation, have a relationship with management practice adoptions such as activity based costing and balanced scorecard. 75% of the respondents agreed with the statement in our organization staff pay attention to details confirming Rababah (2015) assertion that business units with a detail-oriented culture pay attention to details and emphasize precision. These units are more likely to value the information produced by BSC because of their need for accuracy and details.

The Table 4.11 further shows that low standard deviation and means was scored on all the factors and this indicates a low variation. This means that the questions were well answered and answers given were accurate and reliable. The study hence deduced that teamwork among employees, innovativeness and experimentation, shared mission, shared belief and values, personal sense of accomplishment, focus on outcomes, attention to details moderate the relationship between BSC adoption rationale and organizational performance of state corporations in Kenya. Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's test of sphericity were conducted for organizational culture. Table 4.12 show the results

**Table 4.12: Organizational culture KMO and Bartlett's Sphericity tests**

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</b>		0.642
Bartlett's Test of Sphericity	Approx. Chi-Square	48.814
	df	21
	Sig.	<b>0.001</b>

Results in Table 4.12 revealed that KMO statistic was 0.642 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5. In addition to the KMO test, the Bartlett's Test of Sphericity was also highly significant (Chi-square = 48.814 with 21 degree of freedom, at  $p = 0.001$ ). These results provide justification for further statistical analysis to be conducted. Further, Factor analysis was conducted on statements regarding organizational culture. Results of the factor analysis are presented in Table 4.13.

**Table 4.13: Organizational culture factors analysis component matrix**

<b>Statements</b>	<b>Components</b>
Teamwork among employees is practiced in our organization	0.671
Our organization innovative and experiment new ideas	0.582
Our organization staff have shared mission	0.673
In our organization staff have shared belief and values	0.585
Our organization one feels a personal sense of accomplishment	0.508
Our organization staff focus on outcomes	0.607
In our organization staff pay attention to details	0.591

The results indicate a component matrix of 0.671, 0.582, 0.673, 0.585, 0.508, 0.607, 0.591 for the statements teamwork among employees is practiced in our organization, our organization innovative and experiment new ideas, our organization staff have shared mission, in our organization staff have shared belief and values, our organization one feels a personal sense of accomplishment, our organization staff focus on outcomes, in our organization staff pay attention to details respectively. The results indicate a coefficient of more than 0.5, hence were retained for further analysis in regression.

#### 4.5.5 Organizational performance

Descriptive analysis was conducted for statements on organizational performance. Results are presented in Table 4.14.

**Table 4.14: Descriptive analysis for organizational performance**

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	SD
We have achieved increased revenue/profits	3.30%	14.10%	4.30%	43.50%	34.80%	3.92	1.12
We have achieved increased return on investment	2.20%	13.50%	4.50%	50.60%	29.20%	3.91	1.04
Our operating costs have gone down	2.20%	6.50%	1.10%	45.70%	44.60%	4.24	0.93
Our service quality has improved	3.30%	6.50%	3.30%	46.70%	40.20%	4.14	0.99
Our customer satisfaction has improved	4.30%	4.30%	1.10%	46.70%	43.50%	4.21	0.99
Our retention has improved	3.30%	17.40%	4.30%	40.20%	34.80%	3.86	1.17
Our employee productivity has improved	1.10%	4.30%	1.10%	53.30%	40.20%	4.27	0.79
Our employee satisfaction has improved	1.10%	6.50%	2.20%	43.50%	46.70%	4.28	0.88

The results as indicated in Table 4.14 show that majority of the respondents 78.3% agreed that they have achieved increased revenue/profits. Additionally, the results show that majority of the respondents who were 79.8% agreed that they have achieved increased return on investment. The results also indicated that majority of the respondents 90.3% agreed that their operating costs have gone down confirming Madsen and Stenheim

(2014) assertion that the BSC has an overall positive effect on the performance of an organization

The results also indicated majority of the respondents agreed to the statement our service quality has improved at 86.9%. Further majority of the respondents agreed with the statement our customer satisfaction has improved at 90.2% and a majority agreed with the statement our retention has improved at 75%. The results also indicated the statements, our employee productivity has improved 93.5%, our employee satisfaction has improved at 90.2%.

The results confirm Alexander (2013) assertion that the customer perspective element of balanced scorecard adequately measured customer satisfaction in firms, the business process element of balance scorecard adequately measured the performance of internal process in firms and innovation and learning element of balance scorecard adequately measures the ability of the firm to innovate and adopt the environment. These also confirm Muiruri and Kilika (2015) assertion that four dimensions significantly predict the performance of the public sector organizations of Kenya.

The Table 4.14 further shows that low standard deviation and means was scored on all the factors and this indicates a low variation. This means that the questions were well answered and answers given were accurate and reliable. The study hence deduced that increased revenue/profits, increased return on investment, reducing operating costs, improving service quality, improving customer satisfaction and retention, improving employee productivity, improving employee satisfaction depend on the BSC adoption rationale. Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's test of sphericity were conducted for organizational culture. Table 4.15 show the results

**Table 4.15: Organizational performance KMO and Bartlett's Sphericity tests**

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</b>		<b>0.503</b>
Bartlett's Test of Sphericity	Approx. Chi-Square	97.327
	Df	28
	Sig.	0.00

Results in Table 4.15 revealed that KMO statistic was 0.503 which was significantly high; that is greater than the critical level of significance of the test which was set at 0.5. In addition to the KMO test, the Bartlett's Test of Sphericity was also highly significant (Chi-square = 97.327 with 28 degree of freedom, at  $p < 0.05$ ). These results provide justification for further statistical analysis to be conducted. Factor analysis was conducted on Statements regarding organizational performance. Results of the factor analysis are presented in Table 4.16.

**Table 4.16: Organizational performance factors analysis component matrix**

<b>Statements</b>	<b>Components</b>
We have achieved increased revenue/profits	0.664
We have achieved increased return on investment	0.745
Our operating costs have gone down	0.620
Our service quality has improved	0.537
Our customer satisfaction has improved	0.527
Our retention has improved	0.629
Our employee productivity has improved	0.677
Our employee satisfaction has improved	0.512

The results indicate a component matrix of 0.664, 0.745, 0.620, 0.537, 0.527, 0.629, 0.677, 0.512 for the statements we have achieved increased revenue/profits, we have achieved increased return on investment, our operating costs have gone down, our service quality has improved, our customer satisfaction has improved, our retention has improved, our

employee productivity has improved, our employee satisfaction has improved respectively. The results indicate a coefficient of more than 0.5, hence were retained for further analysis in regression.

#### 4.6 Correlation Analysis

Correlation analysis was conducted to determine the strength of a relationship between the BSC rationale variables and organizational performance. Pearson's product-moment coefficient was used to examine the strength of the relationship between rational choice rationale, institutional rationale, management fashion rationale, organizational culture and organizational performance. Results are shown in Table 4.17.

**Table 4.17: Correlation analysis**

			1	2	3	4	5
1	Rational Choice Rationale	Pearson Correlation	1				
		Sig. (2-tailed)					
2	Institutional Rationale	Pearson Correlation	.497**	1			
		Sig. (2-tailed)	< 0.001				
3	Management Fashion rationale	Pearson Correlation	.459**	.267*	1		
		Sig. (2-tailed)	< 0.001	0.01			
4	Organizational Culture	Pearson Correlation	.353**	.224*	.366**	1	
		Sig. (2-tailed)	0.001	0.032	< 0.001		
5	Organizational performance	Pearson Correlation	.602**	.518**	.613**	.595**	1
		Sig. (2-tailed)	< 0.001	< 0.001	0.001	< 0.001	

\*\* Correlation is significant at the 0.01 level (2-tailed).  
\* Correlation is significant at the 0.05 level (2-tailed).

As shown in Table 4.17 there was a positive and significant relationship between rational choice rationale and organizational performance ( $r = 0.602$ ,  $p < 0.025$ ) corresponding to  $\alpha/2$  significance level of 0.025 for a one sided test. This is in line with the findings of Farneti and Guthrie (2009) that growing number of public sector organizations worldwide are adopting BSC for performance management. Frank (1997) also attests that rational people act efficiently in pursuit of whatever objectives they hold at the moment of choice. Results also showed that there was a positive and significant relationship between institutional rationale and organizational performance ( $r = 0.518$ ,  $p < 0.025$ ) confirming Busco et al., (2006) assertion that legitimacy-seeking arguments offer rival explanations for the adoption of new management practices such as the BSC in organizations pursuit of performance

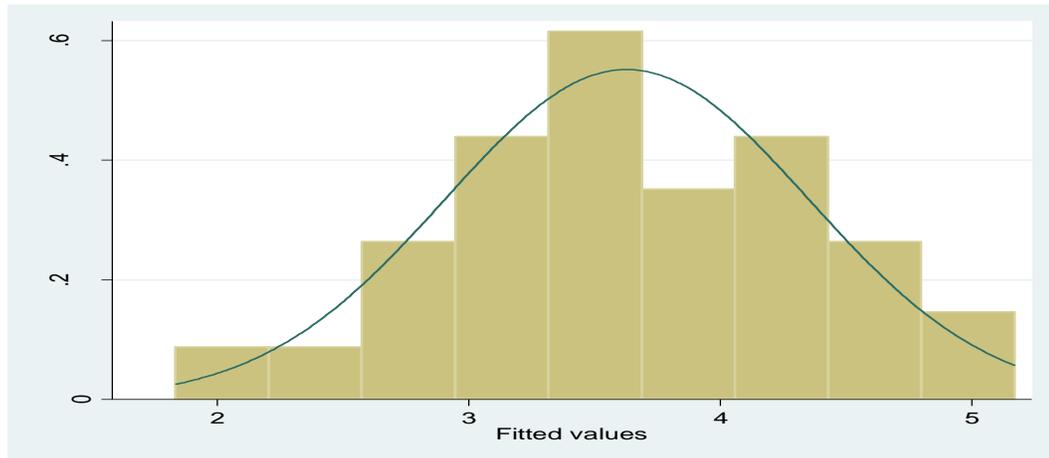
Results further revealed is that there a positive and significant relationship between management fashion rationale and organizational performance ( $r = 0.613$ ,  $p < 0.025$ ). This is in line with Abrahamson, (1996) model that management fashions are used as a kind of managerial intervention, in order to be more innovative, functional, effective and efficient, and to increase organizational performance. Furthermore, the results indicated that there is a positive and significant relationship between organizational culture and organizational performance ( $r = 0.595$ ,  $p < 0.025$ ) further confirming Rababah, (2015) assertion that employees in companies with more innovative cultures are more likely to react positively to new techniques, thus increasing the chance of their success, whereas the converse will apply in companies with less innovative cultures

#### **4.7 Diagnostic tests for analytical model**

This section highlights the various diagnostic tests to ensure quality of the data used. The tests used here are normality test on residuals, to detect correlations between the predictor variables, and heteroscedasticity test to check if the errors do not have a constant variance across units.

### 4.7.1 Test of normality

Normality test was conducted and results presented in form of a histogram. Results are shown in Figure 4.6. The results in the figure indicate that the residuals are normally distributed.



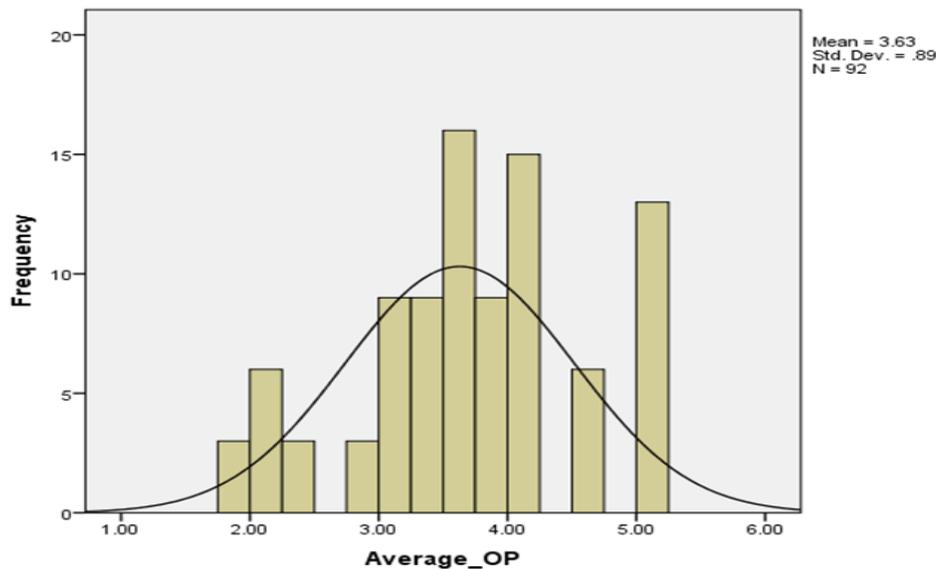
**Figure 4.6: Histogram test of normality**

### 4.7.2 Test for skewness and kurtosis

The skewness or the third central moment and Kurtosis the fourth moment are commonly used to roughly check normality. They show how the distribution of a variable deviates from a normal distribution. If a variable is normally distributed, its skewness and Kurtosis are zero and three, respectively and is said to be mesokurtic. If skewness is greater than zero, the distribution is skewed to the right, having more observations on the left. If Kurtosis is less than three, the distribution has thicker tails and a lower peak compared to a normal distribution and is said to be platykurtic. If the kurtosis is greater than three, it is leptokurtic compared to a normal distribution. Like descriptive graphical methods, skewness and kurtosis are based on the empirical data.

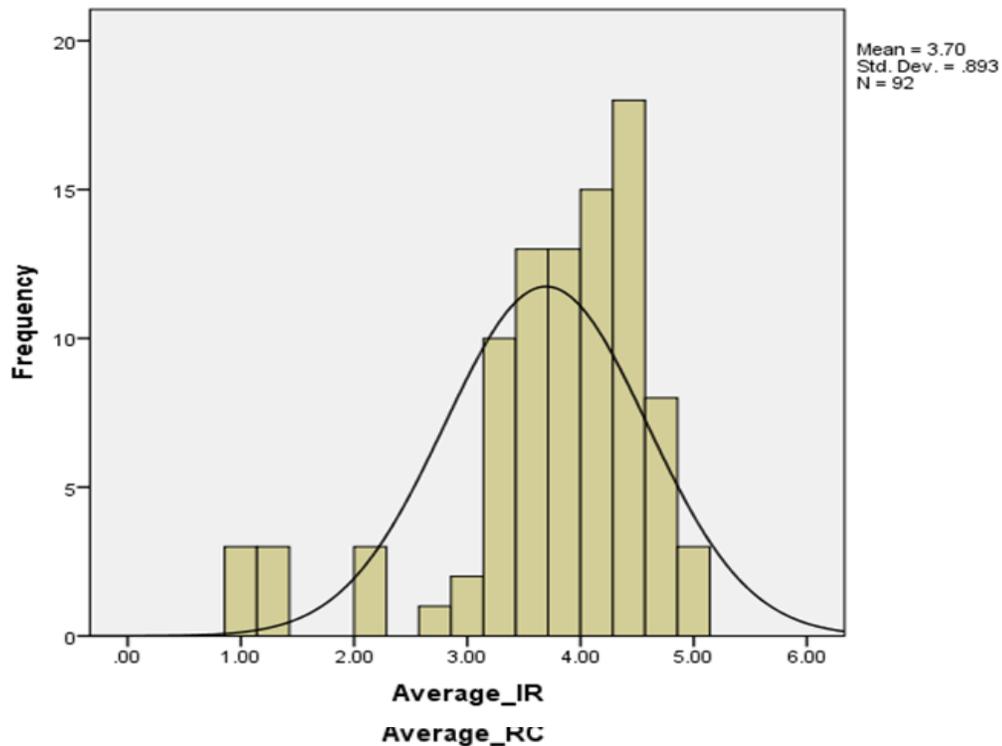
Skewness and kurtosis test was conducted and results presented in form of a histogram. Figure 4.7, 4.8, 4.9, 4.10, 4.11 shows skewness and kurtosis histogram for organizational

performance, rational choice rationale, institutional rationale, management fashion rationale, and organization culture respectively. If Kurtosis is less than three the distribution has thicker tails and a lower peak compared to a normal distribution. Figure 4.7 shows the skewness and kurtosis for organizational performance. A skewness statistic of -0.276 indicates that the variable organizational performance was negatively skewed but the values were closely distributed around the mean and hence the data was not affected by outliers. The kurtosis statistic of -0.371 indicates that the variable organizational performance is platykurtic, implying that the peakedness is lower than that of a normal distribution.



**Figure 4.7: Skewness and kurtosis histogram for organizational performance**

The figure 4.8 shows the Skewness Kurtosis histogram for rational choice rationale. A skewness statistic of -0.885 indicates that the variable rational choice was negatively skewed but the values were closely distributed around the mean and hence the data was not affected by outliers. The kurtosis statistic of 1.051 indicates that the variable rational choice is platykurtic compared to normal distribution, implying that the peakedness is lower than that of a normal distribution



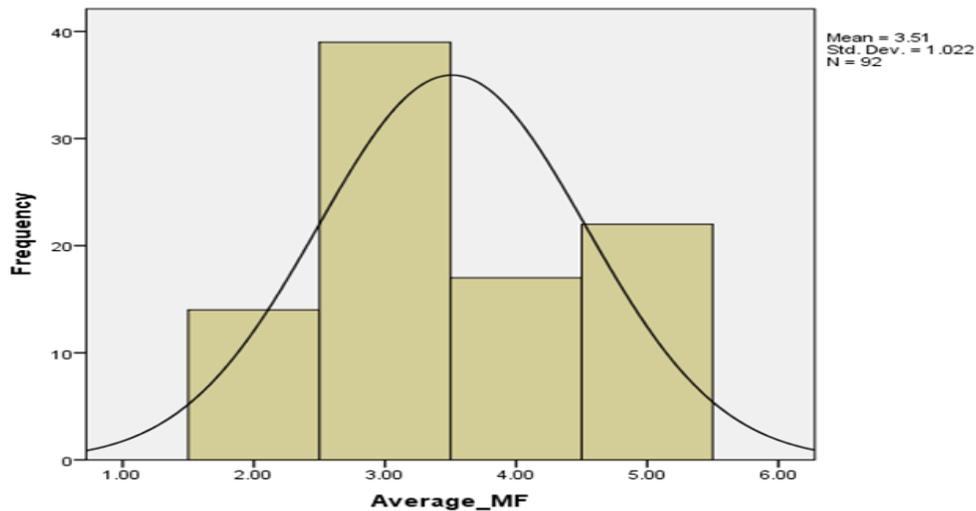
**Figure 4.8: Skewness and kurtosis histogram for RC rationale**

The figure 4.9 shows the skewness kurtosis histogram for institutional rationale. A skewness statistic of -0.518 indicates that the variable institutional rationale was negatively skewed but the values were closely distributed around the mean and hence the data was not affected by outliers. The kurtosis statistic of 2.378 indicates that the variable institutional rationale is platykurtic, implying that the peakedness is lower than that of a normal distribution

**Figure 4.9: Skewness and kurtosis histogram for IR**

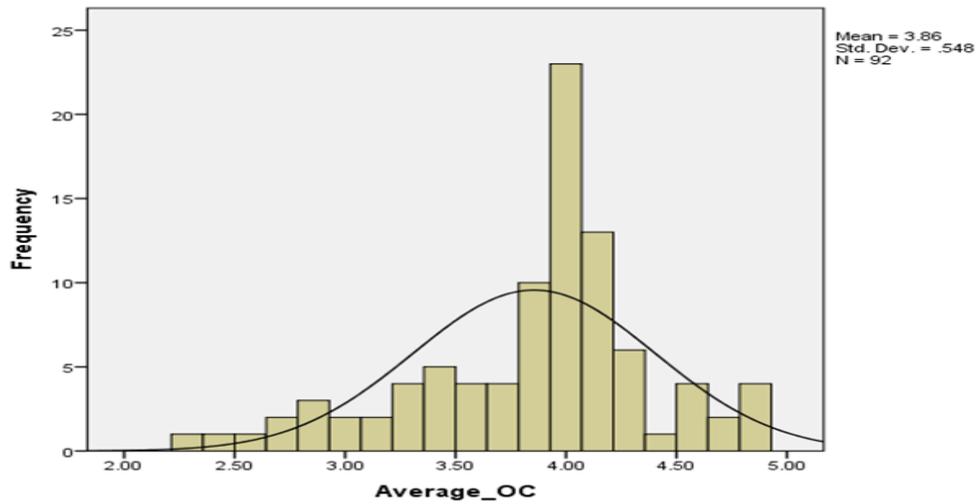
Figure 4.10 shows the skewness kurtosis histogram for management fashion rationale. A skewness statistic of 0.223 indicates that the variable management fashion rationale was positively skewed but the values were closely distributed around the mean and hence the data was not affected by outliers. The kurtosis statistic of -1.111 indicates that the variable

management fashion rationale is platykurtic, implying that the peakedness is lower than that of a normal distribution



**Figure 4.10: Skewness and kurtosis histogram for MF rationale**

Figure 4.11 shows the Skewness Kurtosis histogram for organizational culture. A skewness statistic of -0.699 indicates that the variable organizational culture was negatively skewed but the values were closely distributed around the mean and hence the data was not affected by outliers. The kurtosis statistic of 0.545 indicates that the variable organizational culture is platykurtic, implying that the peakedness is lower than that of a normal distribution.



**Figure 4.11: Skewness and kurtosis histogram for organizational culture**

**Table 4.18 Summary statistics**

	Mean Statistic	Std. Deviation Statistic	Skewness Statistic	Kurtosis Statistic
Rational Choice Rationale	4.0190	0.78116	-0.885	1.051
Institutional Rationale	3.6957	0.89308	-0.518	2.378
Management Fashion	3.5109	1.02168	0.223	-1.111
Organizational Culture	3.8556	0.54840	-0.699	0.545
Organizational Performance	3.6283	0.89022	-0.276	-0.371
Valid N (list wise)				

### 4.7.3 Test for multicollinearity

According to William *et al.*, (2013), multicollinearity refers to the presence of correlations between the predictor variables. In severe cases of perfect correlations between predictor variables, multicollinearity can imply that a unique least squares solution to a regression

analysis cannot be computed. Multicollinearity inflates the standard errors and confidence intervals leading to unstable estimates of the coefficients for individual predictors. Multicollinearity was assessed in this study using the variance inflation factors (VIF). According to Field (2009) VIF values in excess of 10 and tolerance value less than 0.2 are an indication of the presence of multicollinearity.

**Table 4.19: Test for Multicollinearity using Tolerance and Variance Inflation factor**

	Collinearity Statistics	
	Tolerance	VIF
Rational Choice rationale	0.617	1.620
Institutional rationale	0.750	1.334
Management Rationale	0.741	1.350
Organizational culture	0.821	1.218

Results in Table 4.19 shows that all the tolerance values were above 0.2 and VIF less than 10 and thus, there was no collinearity among the independent variables. Typically VIF<5 and tolerance > 0.2 is recommended in most studies and these tests indicate that all variables met the threshold for multicollinearity and were thus all used for further analysis using multiple linear regression.

#### **4.7.4 Heteroscedasticity test**

Errors in the regression equation are assumed to have a common variance within cross-sectional units. If the errors do not have a constant variance across units we say they are heteroscedastic. (Stevenson,2004). The hettest command calculates Breuch Pagan for group wise heteroscedasticity in the residuals. Heteroscedasticity test was run in order to test whether the error terms are correlated across observation in the data (Long & Ervin, 2000). The null hypothesis is that the data does not suffer from heteroscedasticity if the p-value is greater than the 0.05. The null hypothesis was not rejected at a critical p value of

0.05 since the reported value was 0.0547 which is  $>0.05$ . Thus the data did not suffer from heteroscedasticity (Fletcher, Gallimore & Mangan, 2000).

**Table 4.20: Heteroscedasticity results**

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity		
Ho: Constant variance		
chi2(1)	=	4.46
Prob > chi2	=	<b>0.0547</b>

The results in Table 4.20 indicate that the null hypothesis of constant variance is not rejected as supported by a p-value  $>0.05$

#### **4.8 Influence of BSC rationale on performance of state corporations**

Inferential statistics was calculated to determine the relationship between the rational choice rationale, institutional rationale and management fashion rationale and organizational performance of State corporations in Kenya. The moderating effect of culture on the relationship rationale for BSC adoption and organizational performance of State corporations in Kenya was analyzed using inferential statistics.

##### **4.8.1 Influence of rational choice rationale on performance of state corporations**

Table 4.21 presents the regression of coefficients results for rational choice rationale. A value of  $p < 0.01$  is interpreted as a very strong evidence against Ho,  $p < 0.05$  is moderate evidence against Ho,  $p < 0.10$  is suggestive evidence against Ho,  $p > 0.10$  is little or no real evidence against Ho

**Table 4.21: Regression of coefficients results for rational choice rationale**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.902	0.407		2.219	0.029
Our organization adopted the BSC in order to achieve efficiency in our operations	0.107	0.082	0.108	1.311	0.193
Our organization adopted BSC because it is an effective tool	0.540	0.103	0.616	5.235	0.000
Our organization adopted BSC to be able to more improve performance measurement	0.275	0.102	0.324	2.686	0.009

Regression of coefficients results in Table 4.21 showed that efficiency in operations of BSC and organizational performance had a positive and insignificant relationship ( $B=0.107$ ,  $p = 0.193$ ). The results also revealed that effectiveness of BSC and organizational performance had a positive and significant relationship ( $B= 0.54$ ,  $p < 0.025$ ). The results further revealed that ability to improve performance measurement and organizational performance had a positive and significant relationship ( $B = 0.275$ ,  $p = 0.009$ ). Table 4.22 presents the model fitness, ANOVA and optimal model used in explaining the study phenomena

**Table 4.22: Model Fitness, ANOVA and Optimal model**

<b>Model Summary</b>				
<b>Model</b>	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adjusted R<sup>2</sup></b>	<b>Std Error</b>
1	0.695a	0.483	0.459	0.65483

**ANOVA**

	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	34.81	4	8.703	20.295	< <b>0.001</b>
Residual	37.306	87	0.429		
Total	72.116	91			

<b>Coefficients</b>					
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>	<b>t</b>	<b>Sig.</b>
(Constant)	0.87	0.393		2.217	0.029
Rational Choice Rationale	0.686	0.096	0.602	7.155	< <b>0.0011</b>

The results in Table 4.22 show that rational choice rationale of BSC adoption was found to be satisfactory in explaining organizational performance. This is supported by coefficient of determination of 0.483. This means that rational choice rationale explain 48.3% of the variations in the dependent variable which is organizational performance. Further, ANOVA results indicate that the overall model was statistically significant. This was supported by an F statistic of 20.295 and the reported p value ( $p < 0.025$ ). The results imply that rational choice rationale is a good predictor of organizational performance

It was further noted that the regression coefficients revealed there was a positive and significant relationship between rational choice rationale for BSC adoption and organizational performance ( $B=0.686$ ,  $p < 0.025$ ). This was supported by a calculated t-statistic of 7.155 which is larger than the critical t-statistic of 1.96 (Kothari, 2011). These results agree with Farneti and Guthrie (2009) who indicated that growing number of

public sector organizations worldwide are adopting BSC for performance management due to the efficiency, effectiveness and economy of BSC model.

The model for rational choice rationale is

$$Y=0.87+0.686X_1 \text{ , where}$$

Y= Organizational Performance

X<sub>1</sub>= Rational Choice Rationale

***Hypothesis Testing for Rational Choice Rationale***, The first hypothesis to be tested was (***H<sub>1</sub>***)

***H<sub>1</sub>: There is a significant relationship between rational choice rationale for adoption of BSC and organizational performance of state corporations in Kenya***

The hypothesis was tested by using simple linear regression (Kothari, 2011) and determined using p-value (Table 4.22). The acceptance/rejection criteria was that, if the p value is greater than 0.025, we reject the alternative hypothesis but if it's less than 0.025, the alternative hypothesis is not rejected. Therefore the alternative hypothesis is that there is a significant relationship between rational choice rationale for adoption of BSC and organizational performance of state corporations in Kenya. Results in Table 4.22 show that the p-value was < 0.025. This was supported by a calculated t-statistic of 7.155 which is larger than the critical t-statistic of 1.96. The alternative hypothesis was therefore not rejected. The study therefore adopted the alternative hypothesis that there is a significant relationship between rational choice rationale for adoption of BSC and organizational performance of state corporations in Kenya.

#### **4.8.2 Influence of Institutional rationale on performance of state corporations**

Table 4.23 presents the regression of coefficients results of institutional rationale for BSC adoption.

**Table 4.23: Regression of coefficients results for institutional rationale**

	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
(Constant)	1.706	0.341		5.005	0
Our customers/clients expect our organization to have BSC	0.348	0.09	0.499	3.877	0.000
Organizations we depend on expect that we have BSC	0.005	0.078	0.008	0.063	0.95
BSC has been adopted by our organization due to influence from professional networks	0.383	0.107	0.432	3.588	0.001
BSC has been widely adopted by our customers/clients	0.074	0.072	0.114	1.025	0.308
Our main competitors who have BSC have benefited a lot	-0.033	0.073	-0.047	-0.451	0.653
Our main competitors who have adopted BSC are perceived favorably by customers/clients	-0.166	0.07	-0.233	-2.358	0.021

Regression of coefficients results in Table 4.23 showed that customer expectations on the usage of BSC and organizational performance had a positive and significant relationship (B=0.348,  $p < 0.025$ ). The results further revealed that organization's they depend on expect that they use BSC and organizational performance had a positive and insignificant relationship (B=0.005,  $p=0.95$ ). The results also revealed that BSC has been adopted by our organization due to influence from professional networks and organizational performance have a positive and significant relationship (B=0.383,  $p<0.025$ ). Balanced scorecard has been widely adopted by our customers/clients had a positive and

insignificant relationship ( $B=0.074$ ,  $p=0.308$ ). Moreover, results revealed that the statement competitors who adopted BSC have benefited a lot had a negative and insignificant relationship ( $B= -0.033$ ,  $p=0.653$ ). Finally, results revealed that the statement our main competitors who have adopted balanced scorecard are perceived favorably by customers/clients had a negative and insignificant ( $B=-0.166$ ,  $p=0.021$ ). Table 4.24 presents the model fitness, ANOVA and optimal model used in explaining the study phenomena

**Table 4.24: Model Fitness, ANOVA and Optimal model**

<b>Model Summary</b>					
Model	R	R square	Adj. R Square	Std. Error	
1	.651a	0.424	0.376	0.70338	
<b>ANOVA</b>					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	30.558	7	4.365	8.824	< <b>0.001</b>
Residual	41.558	84	0.495		
Total	72.116	91			
<b>Coefficients</b>					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.719	0.342		5.034	< 0.001
Institutional Rationale	0.517	0.09	0.518	5.749	< <b>0.001</b>

The results in Table 4.24 indicate that institutional rationale is satisfactory in explaining organizational performance which is supported by a coefficient of determination  $R^2$  of 42.4%. This means that institutional rationale explain 42.4% of the variations in organizational performance. The results on analysis of variance of institutional rationale show that the overall model was statistically significant. This was supported by an F statistic of 8.824 and the reported p value of  $< 0.025$  which was less than the conventional probability of 0.025 significance level. Further, the results imply that the

independent variable institutional rationale for BSC adoption is a good predictor of organizational performance.

The results further revealed that there was a positive and significant relationship between institutional rationale for BSC adoption and organizational performance ( $B=0.517$ ,  $p<0.025$ ). This was supported by a calculated t-statistic of 5.749 which is larger than the critical t-statistic of 1.96 (Kothari, 2011). These results agree with Rautiainen (2009), who mentioned that based on the institutional pressure, public organizations are forced to imitate various models and theories of the private sector within their organizations which causes change in behavior to avoid sanctions and enhance survival. The institutional perspective establishes that organizations working in the same environment have isomorphic characteristics that lead them to the dilemma of implementing a managerial tool that, in practice, is not used on a daily basis. This kind of situation arises from the social expectations that generate the so-called institutional isomorphism (Boxenbaum & Jonsson, 2008). When the adaptation process of new managerial practices stems from institutional pressures that contradict the rational rationale of seeking the internal efficiency required to maximize outcomes, it is noticed that organizations mimetically adopting these new practices claim to use them, but in fact they are not observed in daily business (Boxenbaum & Jonsson, 2008)

The model for institutional rationale is

$$Y=1.719+0.517X_2, \text{ where}$$

Y= Organizational Performance

$X_2$ = Institutional Rationale

***Hypothesis testing for institutional Rationale***, The second hypothesis to be tested was ( $H_2$ )

***H<sub>2</sub>: There is a significant relationship between institutional rationale for adoption of BSC and organizational performance of State corporations in Kenya***

The hypothesis was tested by using simple linear regression (Kothari, 2011) and determined using p-value (Table 4.24). The acceptance/rejection criteria was that, if the p value is greater than 0.025, we reject the alternative hypothesis but if it's less than 0.025, the alternative hypothesis is not rejected. Therefore the alternative hypothesis is that there is a significant relationship between institutional rationale for adoption of BSC and organizational performance of state corporations in Kenya. Results in Table 4.24 show that the p-value was < 0.025. This was supported by a calculated t-statistic of 5.749 which is larger than the critical t-statistic of 1.96. The alternative hypothesis was therefore not rejected. The study therefore adopted the alternative hypothesis that there is a significant relationship between institutional rationale for adoption of BSC and organizational performance of state corporations in Kenya.

**4.8.3 Influence of management fashion rationale**

Table 4.25 presents the regression of coefficients results management fashion rationale for BSC adoption

**Table 4.25: Regression of coefficients results for management fashion rationale**

	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
(Constant)	2.286	0.457			5.001	0.000
Our organization adopted BSC because of influence of management experts/consultants	0.030	0.075	0.042		0.396	0.693
Our organization BSC because influence from our top management	-0.200	0.095	-0.242		-2.107	0.038
Our organization adopted BSC in response to performance related problem experienced	0.395	0.077	0.494		5.147	0.000
Our organization adopted BSC because it is appealing in the market	0.087	0.092	0.125		0.953	0.343
We adopted BSC because of the rhetoric's used to market its usefulness	0.050	0.085	0.079		0.586	0.560

Regression of coefficients results in Table 4.25 showed that management fashion rationale influence on the adoption of BSC and organizational performance had a positive and insignificant relationship ( $B=0.03$ ,  $p=0.693$ ). The results also revealed that top management influence on adoption of BSC and organizational performance had a negative and significant relationship ( $B=-0.2$   $p=0.038$ ). The results also indicated that level of appeal of BSC in market and organizational performance have a positive and insignificant relationship ( $B=0.087$ ,  $p=0.343$ ). The results further revealed that rhetoric's used to market BSC usefulness had a positive and insignificant relationship with organizational performance ( $B=0.05$ ,  $p=0.56$ ) This confirms that management fashions are weak in the skill of self-criticism; present an effort of forming a certain terminology rather than knowledge, experience difficulties in developing a common understanding about the techniques, and holds uncertainties and paradoxes in a way other disciplines will not tolerate (Dedeoğlu, 2008, Tutar, 2009)

The results further revealed that performance related problems influence on BSC adoption and organizational performance had a positive and significant relationship ( $B=0.395$ ,  $p<$

0.025) confirming Abrahamson, (1996) assertion that management fashions are used as a kind of managerial intervention, in order to be more innovative, functional, effective and efficient, and to increase organizational performance. Table 4.26 presents the model fitness, ANOVA and optimal model used in explaining the study phenomena

**Table 4.26: Model Fitness, ANOVA and Optimal model**

<b>Model Summary</b>					
Model	R	R square	Adj. R square	<i>Std Error</i>	
1	.528a	0.279	0.236	0.79036	
<b>ANOVA</b>					
	Sum of Squares	Df	Mean Square	F	Sig.
Regression	20.069	5	4.014	6.425	0.00
Residual	51.848	83	0.625		
Total	71.917	88			
<b>Coefficients</b>					
	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
(Constant)	1.752	0.265	Beta	6.609	0.000
Management Fashion Rationale	0.534	0.073	0.613	7.365	< <b>0.001</b>

The results in Table 4.26 revealed that management fashion rationale is satisfactory in explaining organizational performance which is supported by a coefficient of determination of 27.9%. This means that management fashion rationale explain 27.9% of the variations in the dependent variable which is organizational performance. Analysis of variance conducted on management fashion rationale indicate that the overall model was statistically significant. Further, the results imply that the independent variable management fashion rationale of BSC adoption is a good predictor of organizational performance. This was supported by an F statistic of 6.425 greater than critical t-statistic

of 1.96 and the reported p value  $< 0.025$  which was less than the conventional probability of 0.05 significance level.

The results further revealed that there was a positive and significant relationship between management fashion rationale for BSC adoption and organizational performance ( $B=0.534, p<0.025$ ). This was supported by a calculated t-statistic of 7.365 which is larger than the critical t-statistic of 1.96, (Kothari, 2011). This is in line with Ax and Bjornenak (2005) who pointed out the important role played by fashion-setters such as consultants and conference organizers in the early phase of BSC diffusion in organizations. This could make such organizations adopt BSC not because of the economic benefits associated with it but because of pressure from fashion setters and in turn affecting organizational performance.

The model for management fashion rationale is

$$Y=1.752+0.534X_3, \text{ where}$$

Y= Organizational Performance

$X_3$ = Management Fashion Rationale

***Hypothesis testing for management fashion Rationale.*** The third hypothesis to be tested was ( $H_3$ )

***H<sub>3</sub>: There is a significant relationship between management fashion rationale for adoption of BSC and organizational performance of state corporations in Kenya***

The hypothesis was tested by using simple linear regression (Kothari, 2011) and determined using p-value (Table 4.26). The acceptance/rejection criteria was that, if the p value is greater than 0.05, we reject the alternative hypothesis but if it's less than 0.05, the alternative hypothesis is not rejected. Therefore the alternative hypothesis is that there is a significant relationship between management fashion rationale for adoption of BSC and organizational performance of State corporations in Kenya. Results in Table 4.26 show

that the p-value was <0.05. This was supported by a calculated t-statistic of 7.365 which is larger than the critical t-statistic of 1.96. The alternative hypothesis was therefore not rejected. The study therefore adopted the alternative hypothesis that there is a significant relationship between management fashion rationale for adoption of BSC and organizational performance of state corporations in Kenya.

#### 4.8.4 Combined influence of BSC rationale on organizational performance

Table 4.27 presents the regression of coefficients results for combined influence of BSC rationales on organizational performance

**Table 4.27: Regression of coefficients results**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.095	0.356		0.268	0.789
Rational choice Rationale	0.317	0.101	0.278	3.148	0.002
Institutional Rationale	0.269	0.081	0.27	3.309	0.001
Management Fashion Rationale	0.360	0.069	0.413	5.192	<0.001

Regression of coefficients showed that rational choice and organizational performance had a positive and significant relationship (B=0.317, p<0.025). The results also revealed that institutional rationale and organizational performance had a positive and significant relationship (B=0.269, p<0.025). The results also revealed that management fashion rationale and organizational performance had a positive and significant relationship (B=0.360, p= < 0.025).

$$Y = 0.317X_1 + 0.269X_2 + 0.360X_3 + 0.095$$

Where Y = organizational performance

X<sub>1</sub> = Rational choice rationale

X<sub>2</sub> = Institutional rationale

X<sub>3</sub> = Management Fashion rationale

This implies that even with the absence of the rationales for BSC adoption organizations would still perform to some extent. Table 4.28 presents the model fitness and ANOVA used in explaining the study phenomena

**Table 4.28: Model Fitness and ANOVA**

Model Summary					
Model	R	R square	Adj. R square	Std. Error	
1	.749a	0.561	0.546	0.59988	
ANOVA					
	Sum of Squares	Df	Mean Square	F	Sig.
Regression	40.449	3	13.483	37.467	< 0.001
Residual	31.668	88	0.360		
Total	72.116	91			

The independent variables were found to be satisfactory in explaining organizational performance of state corporations in Kenya. This is supported by coefficient of determination of 0.561. This means that independent variables explain 56.1% of the variations in the dependent variable, organizational performance of state corporations in Kenya. Daniel, Myers and Dixon (2012) indicated that managers find organization-wide practices as more difficult to implement than more localized practices. This increased difficulty causes managers to move beyond a purely rational approach and to draw on a wider range of rationales (March, 2006). These wider rationales may serve a dual purpose, firstly to help assure the managers that they have selected the most appropriate approach, and secondly, in order to influence the many staff that will need to be involved in the adoption of organization-wide practices. Managers adopting such practices can more

easily draw on the psychodynamic, dramaturgical, cultural and institutional rationales, than those managers adopting internally developed practices, since externally developed practices will be open to the scrutiny and support of external experts and advocates. The results indicate that the overall model was statistically significant. Further, the results imply that rational choice, institutional and management fashions rationales of BSC adoption are good predictors of organizational performance of state corporations in Kenya. This was supported by an F statistic of 37.467 and the reported **p value < 0.025** which was less than the conventional probability of 0.025 significance level

#### **4.9 Moderating effect of organizational culture on BSC adoption rationale and organizational performance**

The fifth objective of the study was to determine the moderating effect of organizational culture on the relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya. The moderated regression model was fitted to the data in three hierarchal stages

- i)  $Y = \beta_0 + \beta_i X_i + \epsilon_i$
- ii)  $Y = \beta_0 + \beta_i X_i + \beta_m X + \epsilon_i$
- iii)  $Y = \beta_0 + \beta_i X_i + \beta_m M + \beta_{im} X_i M + \epsilon_i$

Table 4.29 presents the model fitness, ANOVA and Optimal Model used in explaining the study phenomena

**Table 4.29: Model fitness ANOVA and Optimal model for rational choice rationale**

<b>Model Summary</b>									
Model	R	R Squar e	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics F Change	df1	df2	Sig. F Change
1	.602 <sup>a</sup>	.363	.356	.71466	.363	51.199	1	90	.000
2	.728 <sup>b</sup>	.530	.520	.61703	.168	31.733	1	89	.000
3	.753 <sup>c</sup>	.567	.552	.59584	.037	7.443	1	88	.008

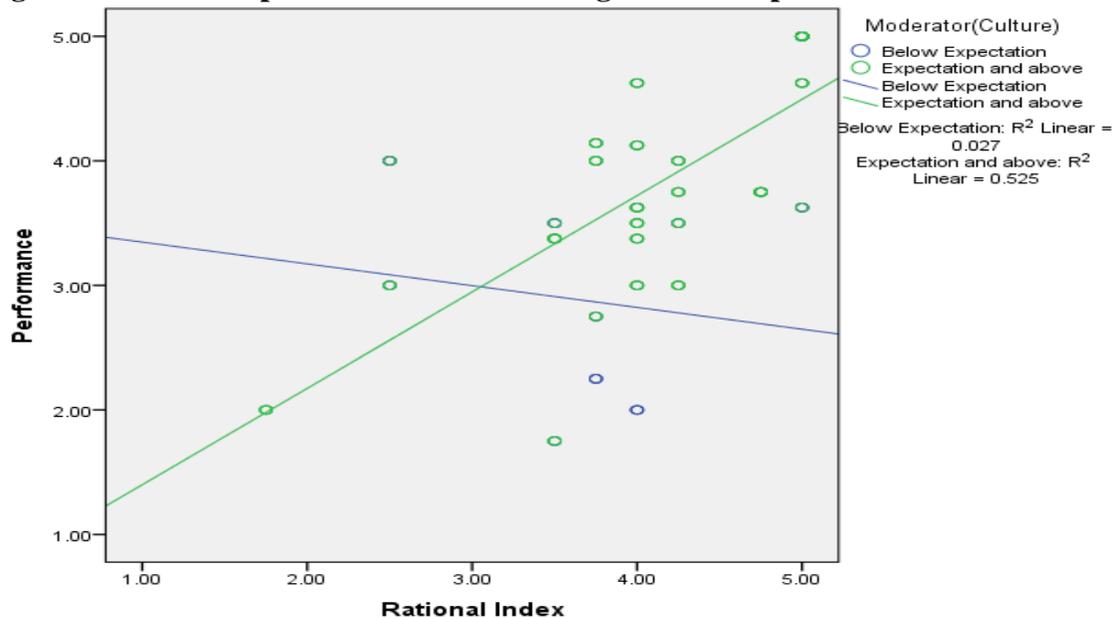
<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.149	1	26.149	51.199	.000 <sup>b</sup>
	Residual	45.967	90	.511		
	Total	72.116	91			
2	Regression	38.231	2	19.116	50.208	.000 <sup>c</sup>
	Residual	33.885	89	.381		
	Total	72.116	91			
3	Regression	40.874	3	13.625	38.376	.000 <sup>d</sup>
	Residual	31.242	88	.355		
	Total	72.116	91			

<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.628	.075		48.696	.000
	Rational Index	.686	.096	.602	7.155	.000
2	(Constant)	3.629	.064		56.410	.000
	Rational Index	.510	.088	.448	5.767	.000
	Culture	.710	.126	.437	5.633	.000
3	(Constant)	3.558	.067		52.795	.000
	Rational Index	.569	.088	.500	6.459	.000
	Culture	.670	.123	.413	5.469	.000
	Rational Index* Culture	.476	.175	.198	2.728	.008

The three models were found to be statistically significant in all cases with a p value < **0.025** in all cases. On adding the interaction term to the model containing both the rational choice rationale index variable and the moderating variable, the change in F was also found to be significant ( F change =7.443, p value <0.025). This implies that culture is a significant moderator of the relationship between rational choice rationale and organizational performance. This is depicted in figure 4.12

**Figure 4.12: Scatter plot for RC index and organizational performance**



In figure 4.12, organizations with the green line, performance grows steadily with every unit increase in rational choice rationale index for BSC adoption, but for those who are operating below expectation, as rational choice rationale increases, there is a decrease in performance.

**Table 4.30: Model fitness ANOVA and Optimal Model for institutional rationale**

<b>Model Summary</b>									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.518 <sup>a</sup>	.269	.260	.76557	.269	33.046	1	90	.000
2	.714 <sup>b</sup>	.510	.499	.62989	.242	43.945	1	89	.000
3	.714 <sup>c</sup>	.510	.494	.63341	.000	.015	1	88	.903

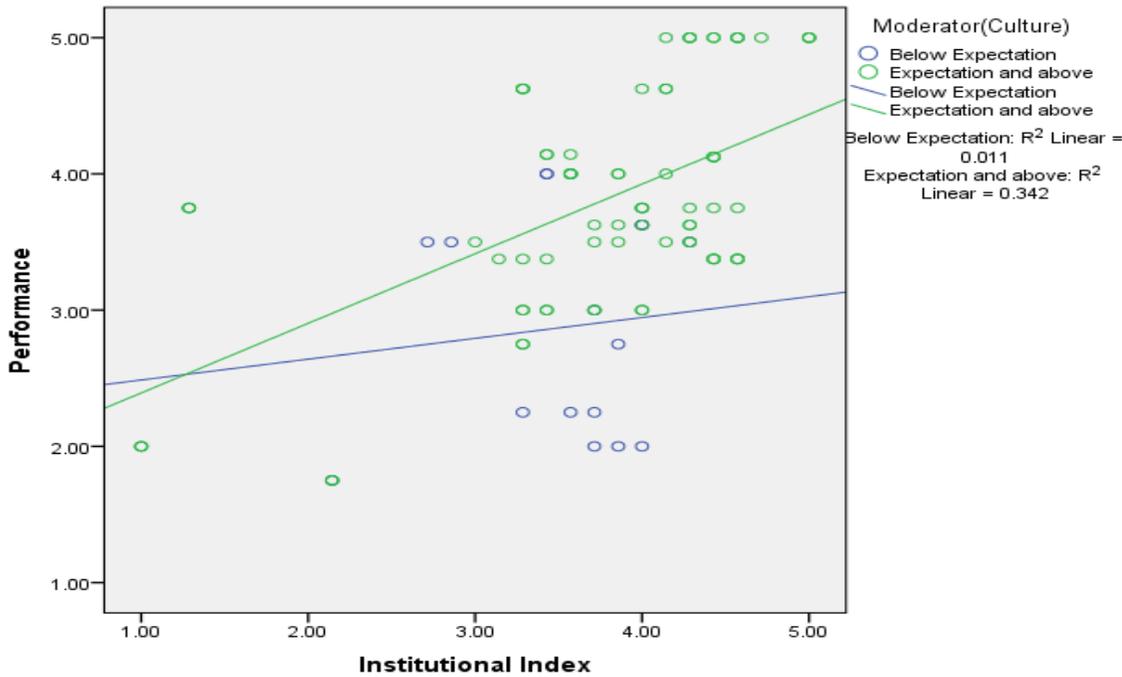
  

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.368	1	19.368	33.046	.000 <sup>b</sup>
	Residual	52.748	90	.586		
	Total	72.116	91			
2	Regression	36.804	2	18.402	46.380	.000 <sup>c</sup>
	Residual	35.312	89	.397		
	Total	72.116	91			
3	Regression	36.810	3	12.270	30.583	.000 <sup>d</sup>
	Residual	35.306	88	.401		
	Total	72.116	91			

<b>Coefficients<sup>a</sup></b>								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.628	.080		45.459	.000		
	Institutional Index	.517	.090	.518	5.749	.000	1.000	1.000
2	(Constant)	3.629	.066		55.260	.000		
	Institutional Index	.404	.076	.405	5.322	.000	.950	1.053
	Culture	.819	.124	.505	6.629	.000	.950	1.053
3	(Constant)	3.631	.068		53.184	.000		
	Institutional Index	.405	.077	.406	5.262	.000	.933	1.072
	Culture	.821	.125	.506	6.556	.000	.935	1.070
	Institutional Index* Culture	-.019	.159	-.009	-.122	.903	.958	1.043

On the model containing institutional rationale index, on adding the interaction term to the model containing both institutional rationale index variable and the moderating variable, the change in F was not significant ( F change =0.015, p=0.903). Hence culture is not a significant moderator of the relationship between institutional rationale and organizational performance. This is depicted in the scatter plot figure 4.13, where even though the lines are crossing at a certain point, the gradient for the uncultured is increasing at a low rate compared to those meeting expectation and above. The coefficient of determination or proportion of the variance in the dependent variable that is predictable from those below expectation is also very low at 0.011.



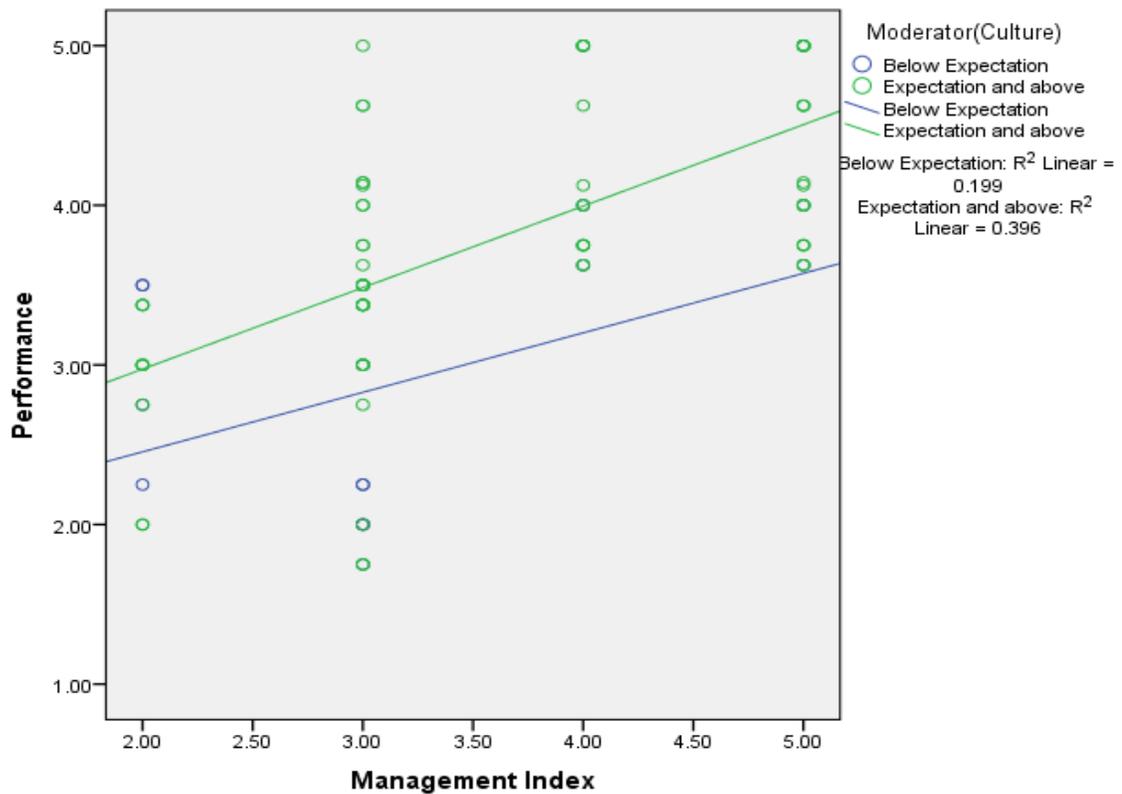
**Figure 4.13: Scatter plot for IR index and organizational performance**

**Table 4.31: Model fitness, ANOVA and Optimal Model for management fashion rationale**

<b>Model Summary</b>									
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>	<b>R Square Change</b>	<b>Change Statistics</b>			
						<b>F</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Change</b>
1	.613 <sup>a</sup>	.376	.369	.70707	.376	54.246	1	90	.000
2	.732 <sup>b</sup>	.535	.525	.61376	.159	30.447	1	89	.000
3	.732 <sup>c</sup>	.536	.520	.61682	.001	.119	1	88	.731
<b>ANOVA<sup>a</sup></b>									
<b>Model</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>		<b>Sig.</b>		
1	Regression	27.120	1	27.120	54.246		.000 <sup>b</sup>		
	Residual	44.996	90	.500					
	Total	72.116	91						
2	Regression	38.590	2	19.295	51.221		.000 <sup>c</sup>		
	Residual	33.526	89	.377					
	Total	72.116	91						
3	Regression	38.635	3	12.878	33.848		.000 <sup>d</sup>		
	Residual	33.481	88	.380					
	Total	72.116	91						
<b>Coefficients<sup>a</sup></b>									
<b>Model</b>		<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>	<b>Collinearity Statistics</b>		
		<b>B</b>	<b>Std. Error</b>	<b>Beta</b>			<b>Tolerance</b>	<b>VIF</b>	
1	(Constant)	3.628	.074		49.219	.000			
	Management Index	.534	.073	.613	7.365	.000	1.000	1.000	
2	(Constant)	3.629	.064		56.711	.000			
	Management Index	.398	.068	.457	5.880	.000	.866	1.154	
	Culture	.696	.126	.428	5.518	.000	.866	1.154	
3	(Constant)	3.620	.069		52.604	.000			
	Management Index	.397	.068	.456	5.840	.000	.866	1.155	
	Culture	.700	.127	.432	5.494	.000	.855	1.169	
	Management Index* Culture	.042	.121	.025	.344	.731	.987	1.013	

On the model with management fashion rationale index, on adding the interaction term to the model containing both the management fashion rationale index variable and the

moderating variable, the change in F was not significant (  $F$  change =0.119,  $p$  =0.731). Hence culture is not significant moderator of the relationship between management fashion rationale and organizational performance. In figure 4.14, the gradients are almost parallel with the rate of increase for the uncultured lower compared to those meeting expectations and above. The coefficient of determination or proportion of the variance in the dependent variable that is predictable from those below expectation was also low at 0.199.



**Figure 4.14: Scatter plot for MF index and organizational performance**

Table 4.32 presents the multiple regression model used in explaining the study phenomena

**Table 4.32: Multiple regression model**

<b>Model Summary</b>									
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>	<b>Change Statistics</b>				
					<b>R Square Change</b>	<b>F Change</b>	<b>df1</b>	<b>df2</b>	<b>Sig. F Change</b>
1	.749 <sup>a</sup>	.561	.546	.59988	.561	37.467	3	88	.000
2	.813 <sup>b</sup>	.660	.645	.53071	.099	25.432	1	87	.000
3	.833 <sup>c</sup>	.693	.668	.51302	.033	3.034	3	84	.034
<b>ANOVA<sup>a</sup></b>									
<b>Model</b>		<b>Sum of Squares</b>		<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>		
1	Regression	40.449		3	13.483	37.467	.000 <sup>b</sup>		
	Residual	31.668		88	.360				
	Total	72.116		91					
2	Regression	47.612		4	11.903	42.260	.000 <sup>c</sup>		
	Residual	24.504		87	.282				
	Total	72.116		91					
3	Regression	50.008		7	7.144	27.143	.000 <sup>d</sup>		
	Residual	22.108		84	.263				
	Total	72.116		91					
<b>Coefficients<sup>a</sup></b>									
<b>Model</b>		<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>T</b>	<b>Sig.</b>	<b>Collinearity Statistics</b>		
		<b>B</b>	<b>Std. Error</b>	<b>Beta</b>			<b>Tolerance</b>	<b>VIF</b>	
1	(Constant)	3.628	.063		58.014	.000			
	Rational Index	.317	.101	.278	3.148	.002	.638	1.566	
	Institutional Index	.269	.081	.270	3.309	.001	.751	1.331	
	Management Index	.360	.069	.413	5.192	.000	.787	1.271	
2	(Constant)	3.629	.055		65.583	.000			
	Rational Index	.234	.091	.205	2.583	.011	.617	1.620	
	Institutional Index	.251	.072	.252	3.485	.001	.750	1.334	
	Management Index	.283	.063	.325	4.469	.000	.741	1.350	
	Culture	.565	.112	.348	5.043	.000	.821	1.218	
3	(Constant)	3.586	.059		60.611	.000			
	Rational Index	.314	.093	.276	3.374	.001	.547	1.829	
	Institutional Index	.256	.072	.256	3.558	.001	.702	1.424	
	Management Index	.259	.062	.298	4.208	.000	.729	1.372	
	Culture	.513	.112	.316	4.560	.000	.761	1.314	
3	Rational Index* Moderator	.541	.188	.224	2.886	.005	.604	1.657	
	Institutional Index* Culture	-.032	.149	-.015	-.215	.830	.720	1.388	
	Management Index* Culture	-.169	.117	-.102	-1.442	.153	.729	1.372	

In the multiple regression model, the only interaction term that became significant was the one for rational choice rationale index and the moderator variable. Researchers typically distinguish between two types of explanations for reasons for its adoption, one is the rational accounts behavior which assumes that organizations act rationally, and adopt the BSC to improve performance (Abrahamson, 1996).

Rational choices are based on methodical evaluation of a situation and use of formal planning, analytical tools and frameworks, metrics and targets before arriving at a decision. If this option led to adoption of BSC, then it means that by the time of its adoption, it is the best among the options available. The other rationales of institutional and management fashion are based on need for legitimacy or adherence to established norms and procedures and acceptance to survive in the social environment (Scott, 2014). From table 4.32, the regression coefficients of the variables are presented according to the effect on the overall model as

$$Y = 3.628 + 0.541X_1 * M - 0.032X_2 * M - 0.169X_3 * M$$

Where Y = Organizational performance

X<sub>1</sub> = Rational choice rationale

X<sub>2</sub> = Institutional rationale

X<sub>3</sub> = Management Fashion rationale

M = Organizational Culture (Moderator)

***Hypothesis testing for moderator variable***, the fifth Hypothesis to be tested was ((H<sub>5</sub>))

***H<sub>5</sub>: Organizational culture significantly moderates the relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya***

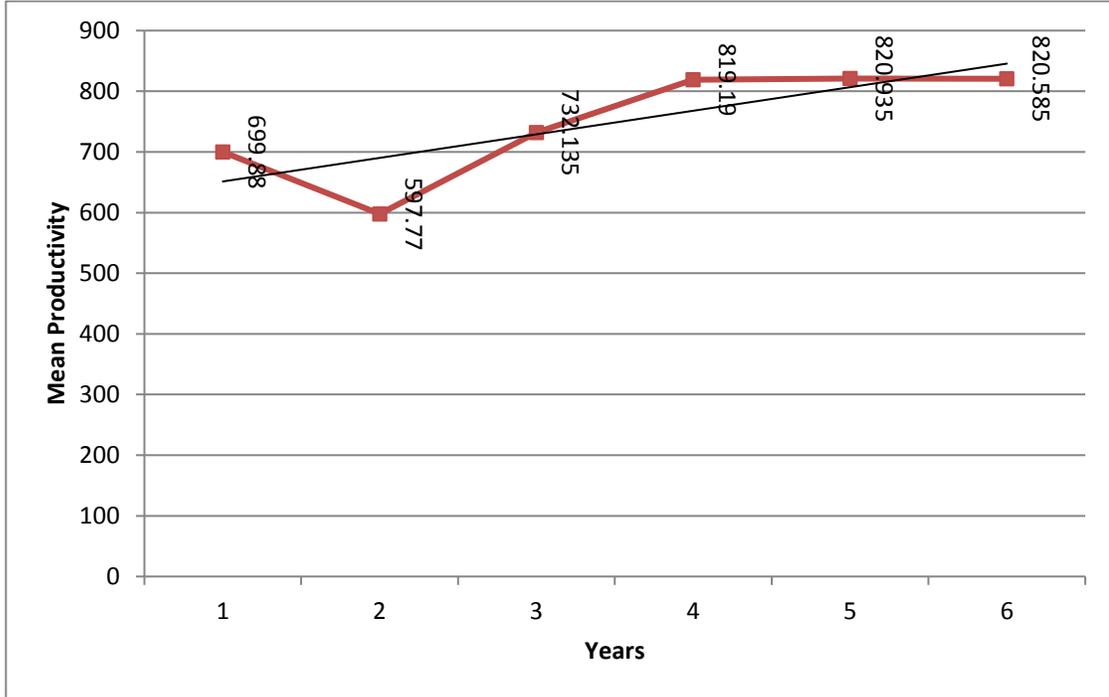
The null hypothesis was that organizational culture significantly moderates the relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya. Results in Table 4.32 show that the p-value= 0.005, for rational choice rationale, p-value=0.0830 for institutional rationale, and p value = 0.153 for management fashion rationale. Hence we conclude that organizational culture only moderates significantly the relationship between rational choice rationale for BSC adoption and organizational performance of state corporations in Kenya.

#### **4.10 Analysis of secondary data on organizational performance**

Trend analysis was conducted for data collected on actual performance of these organizations, since performance cannot be perceptual. This was used to corroborate findings of stage one of this study. Since the state corporations used in this study were set up for different purposes, rational choice was represented by productivity which was calculated from surplus revenue generated divided by the number of staff, institutional rationale was represented by the number of regulator sponsored trainings ,management fashion was represented by number of organizations that had adopted BSC ,culture was represented by amount budgeted for innovation, research and development and organizational performance was represented by customer satisfaction index and employee satisfaction index.

##### **4.9.1 Productivity**

Figure 4.15 shows the trend line for productivity of the organizations. Productivity was calculated by the surplus revenue generated divided by the staff establishment.



**Figure 4.15: Trend line for productivity**

The results indicated that the gradient for mean productivity for the six consecutive years has been rising for the organizations that were sampled. A t-test was then conducted to find the difference in means. Table 4.33 presents the t-test results for productivity.

**Table 4.33: T-test results for productivity**

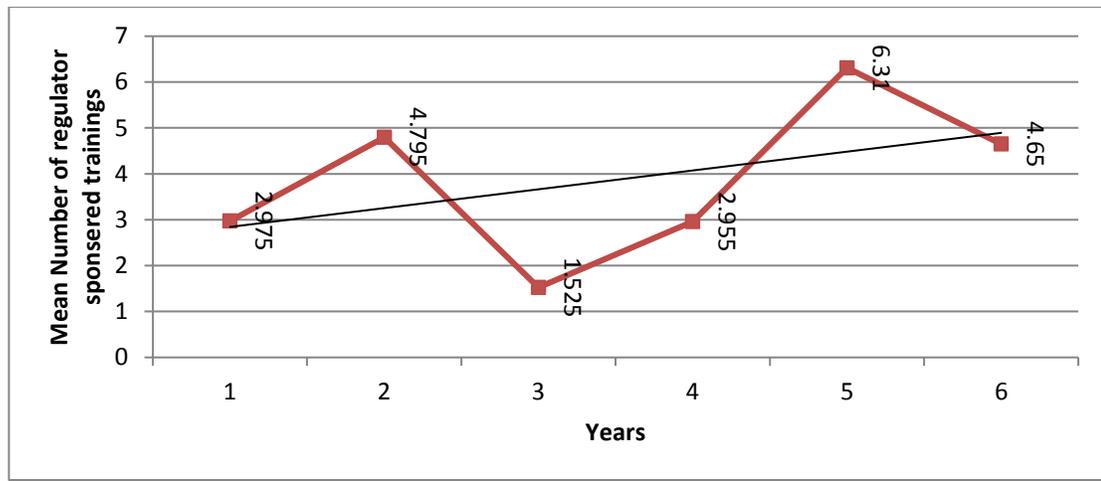
Period	Mean	t-statistic (P-value)
Pre-implementation	676.595	
Post-implementation	820.237	-10.606 (0.00)

The results revealed that there was a difference in the mean productivity between the pre-implementation period and post-implementation period of BSC, with the post implementation period having a higher value compared to pre-implementation period. The mean difference in productivity in the pre and post implementation period of BSC was

also statistically significant ( $t=-10.606$ ,  $p<0.025$ ) indicating there is a significant relationship between BSC adoption rationale and increase in organizational productivity.

#### 4.9.2 Number of regulator sponsored trainings

Figure 4.16 shows the results of the number of regulator sponsored trainings on BSC.



**Figure 4.16: Trend-line for number of regulator sponsored trainings**

The results indicated that the gradient for mean number of regulator sponsored trainings for the six consecutive years has been rising for the organizations that were sampled. A t-test was then conducted to find the difference in means. Table 4.34 presents the t-test results for the mean number of regulator sponsored trainings

**Table 4.34: t-test for Number of regulator sponsored trainings**

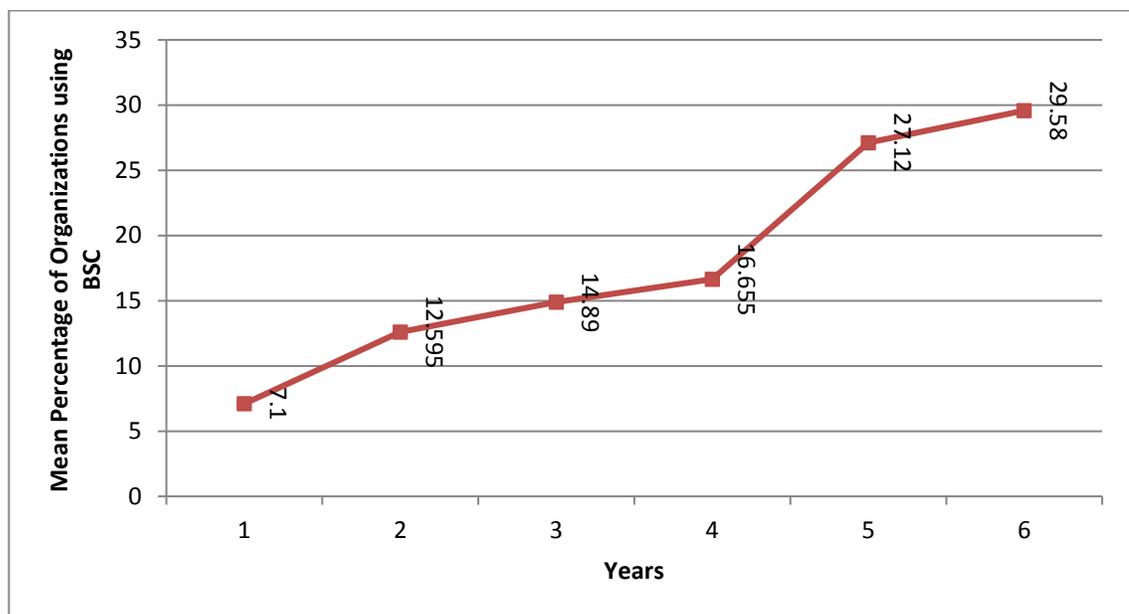
Period	Mean	t-statistic (P-value)
Pre-implementation	3.098	
Post-implementation	4.638	-4.702 (0.00)

The results revealed that there was a difference in the mean number of regulator sponsored trainings between the pre-implementation period and post-implementation period of BSC,

with the post implementation period having a higher value compared to pre-implementation period. The mean difference in number of regulator sponsored trainings in the pre and post implementation period of BSC was also statistically significant ( $t=4.701$ ,  $p<0.025$ ) indicating there is a significant relationship between BSC adoption and increase in number of regulator sponsored trainings

### 4.9.3 Percentage of organizations using BSC

Figure 4.17 shows the trend line for percentage of organizations using BSC. Percentage of organizations using BSC is an indicator that it is what is fashionable and every organization would want to be associated with it.



**Figure 4.17: Trend line for percentage of organizations using BSC**

The results indicated that the gradient for mean number of organizations adopting BSC for the six consecutive years has been rising for the organizations that were sampled. A t-test was then conducted to find the difference in means. Table 4.35 presents the t-test results for the mean number of organizations adopting BSC.

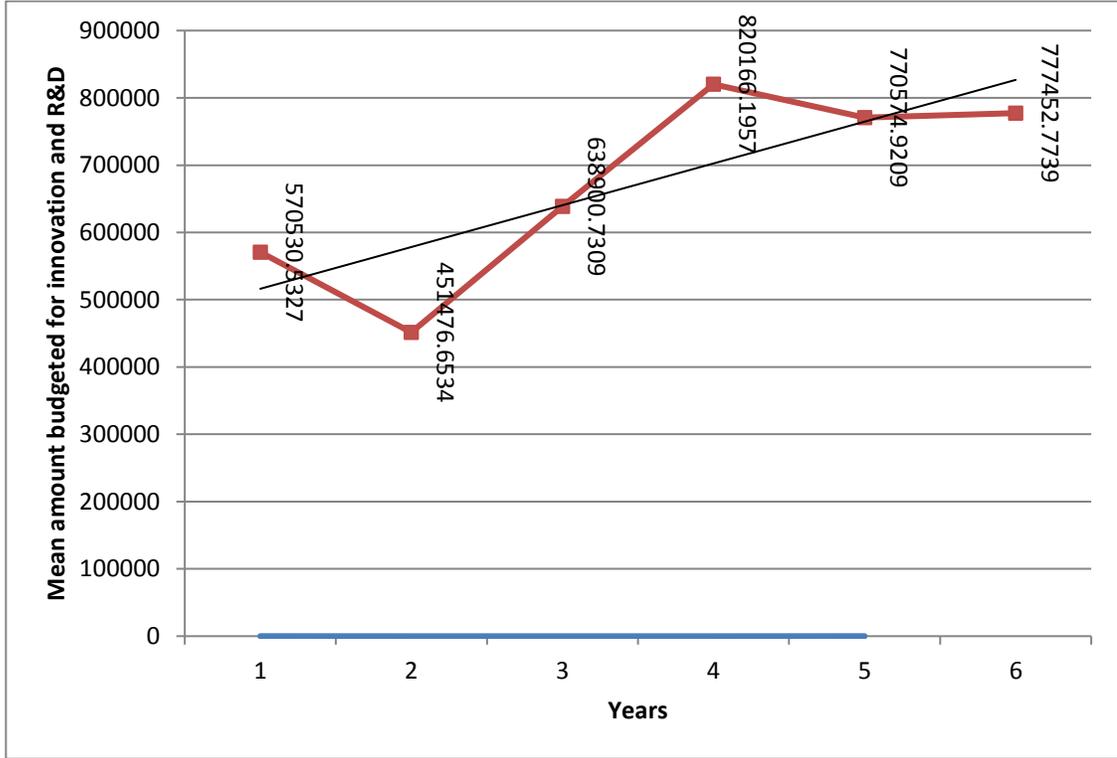
**Table 4.35: t-test for percentage of organizations using BSC**

<b>Period</b>	<b>Mean</b>	<b>t-statistic (P-value)</b>
Pre-implementation	11.528	
Post-implementation	24.452	-10.25 (0.00)

The results revealed that there was a difference in the mean number of organizations adopting BSC between the pre-implementation period and post-implementation period of BSC, with the post implementation period having a higher value compared to pre-implementation period. The mean difference in number of organizations adopting BSC in the pre and post implementation period of BSC was also statistically significant ( $t=-10.25$ ,  $p<0.025$ ) indicating there is an increase in the number of organizations adopting BSC

#### **4.9.4 Amount budgeted for innovation and research and development**

Figure 4.18 shows the results for amount budgeted for innovation, research and development.



**Figure 4.18: Trend line for amount budgeted for innovation, research and development**

The results indicated that the gradient for mean amount budgeted for innovation, research and development for the six consecutive years has been rising for the organizations that were sampled. A t-test was then conducted to find the difference in means. Table 4.36 presents the t-test results for the mean amount budgeted for innovation research and development.

**Table 4.36: t-test for budgeted for innovation and research and development**

Period	Mean	t-statistic (P-value)
Pre-implementation	553636	
Post-implementation	789398	-6.397 (0.00)

The results revealed that there was a difference in the mean amount budgeted for innovation research and development between the pre-implementation period and post-implementation period of BSC, with the post implementation period having a higher value compared to pre-implementation period. The mean difference in number of organizations adopting BSC in the pre and post implementation period of BSC was also statistically significant ( $t=-6.397$ ,  $p<0.025$ ) indicating there is an increase in the mean amount budgeted for innovation research and development.

**Table 4.37: Correlation analysis for secondary data**

		1	2	3	4	5	6
1	Rational Choice	1					
2	Institutional rationale	.043	1				
		.642					
3	Management Fashion	.438**	.688**	1			
		.000	.000				
4	Culture	.563**	.451**	.715**	1		
		.000	.000	.000			
5	Customer satisfaction Index	.410**	.556**	.763**	.915**	1	
		.000	.000	.000	.000		
6	Employee Satisfaction Index	.412**	.557**	.764**	.914**	.999**	1
		.000	.000	.000	.000	.000	
		120	120	120	120	120	120

As shown in Table 4.37 there was a positive and significant relationship between rational choice rationale and organizational performance variable of customer satisfaction index, ( $r= 0.410$ ,  $p < 0.025$ ) Further, the results indicated a positive and significant relationship between rational choice rationale and employee satisfaction index ( $r= 0.412$ ,  $p < 0.025$ ) these are in line with the findings of stage one. Further, the results also showed that there was a positive and significant relationship between institutional rationale and customer satisfaction index ( $r= 0.556$ ,

**p < 0.025**). There is also a positive and significant relationship between institutional rationale and employee satisfaction index ( $r = 0.557$ , **p < 0.025**) confirming the findings of stage one

Further the results indicated a positive and significant relationship for management fashion rationale and customer satisfaction index with ( $r = 0.763$ , **p < 0.025**) and an equally positive and significant relationship between management fashion rationale and employee satisfaction index ( $r = 0.764$ , **p < 0.025**) similar to the findings in stage one of this study. Furthermore, the results indicated that there is a positive and significant relationship between organizational culture and organizational performance variables of customer satisfaction index of ( $r = 0.915$ , **p < 0.025**) and employee satisfaction index ( $r = 0.914$ , **p < 0.025**). These results confirm the findings of the stage one that culture moderates the relationship between BSC adoption and organizational performance of state corporations in Kenya.

**Table 4.38: Model fitness, ANOVA and Optimal model for customer satisfaction index**

Model Summary						
Model	R	R Square	Adjusted R Square		Std. Error of the Estimate	
1	.946 <sup>a</sup>	.894	.889		2.480	
ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5874.434	6	979.072	159.180	.000 <sup>b</sup>
	Residual	695.033	113	6.151		
	Total	6569.467	119			
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	121.121	14.823		8.171	.000
	Rational Choice	-53.453	4.494	-1.041	11.893	.000
	Institutional Rationale	17.547	7.534	4.592	2.329	.022
	Management Fashion Rationale	.817	1.587	1.040	.515	.608
	Rational Choice*Culture	34.254	2.434	1.729	14.075	.000
	Institutional*Culture	-12.935	5.607	-4.682	-2.307	.023
	Management Fashion*Culture	-.452	1.172	-.805	-.385	.701

Form the results (Table 4.40), culture significantly moderates the relationship between rational choice rationale and institutional rationale for BSC adoption with coefficient of interaction variables between culture and rational choice ( $\beta=34.254$ ,  $p<0.025$ ) and between culture and institutional rationale ( $\beta= - 12.935$ ,  $p <0.025$ ) respectively. Culture does not significantly moderate the relationship between management fashion rationale for BSC adoption and customer satisfaction index ( $\beta=-.0.452$ ,  $p=0.701$ ) which is greater than 0.05. This confirms that culture moderates the relationship between rational and institutional rational for BSC adoption and customer satisfaction index an indicator of organizational performance. But confirms that culture does not moderate the relationship

between management fashion rationale and customer satisfaction index an element of organizational performance.

**Table 4.39: Model fitness, ANOVA and Optimal model for employee satisfaction moderation**

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.947 <sup>a</sup>	.896	.890	2.2136		
ANOVA <sup>a</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1 Regression	4766.394	6	794.399	162.128	.000 <sup>b</sup>	
Residual	553.680	113	4.900			
Total	5320.073	119				
Coefficients <sup>a</sup>						
	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
(Constant)	107.837	13.384			8.057	.000
Rational Choice	-47.987	4.058	-1.039		-11.826	.000
Institutional Rationale	15.981	6.803	4.647		2.349	.021
Management Fashion Rationale	.802	1.433	1.135		.560	.577
Rational Choice*Culture	30.867	2.197	1.731		14.047	.000
Institutional*Culture	-11.775	5.062	-4.736		-2.326	.022
Management Fashion*Culture	-.455	1.059	-.901		-.430	.668

Form the results (Table 4.41), culture significantly moderates the relationship between rational choice rationale and institutional rationale for BSC adoption with coefficient of interaction variables between rational choice ( $\beta=30.867$ ,  $p<0.025$ ) and institutional rationale ( $\beta= -11.77$ ,  $p <0.025$ ) respectively. Culture does not significantly moderate the relationship between management fashion rationale for BSC adoption and employee satisfaction index ( $\beta=-.455$ ,  $p = 0.668$ ). This confirms the stage one study that culture moderates the relationship between rational choice rationale and institutional rationale for BSC adoption and employee satisfaction index an indicator of organizational performance. But confirms that culture does not moderate

the relationship between management fashion rationale and employee satisfaction index an element of organizational performance

#### 4. 11 Summary of hypothesis tests and empirical research model

A summary of the hypothesis test and the final empirical research model are presented Table 4.40.

##### 4.11.1 Summary of hypothesis tests

Table 4.40 presents the results of hypothesis.

**Table 4.40: Summary of hypothesis**

Objective No	Objective	Hypothesis	Rule	p-value	Comment
Objective 1	To establish the relationship between rational choice for adoption of BSC and organizational performance of state corporations in Kenya	H <sub>1</sub> : There is a significant relationship between rational choice rationale for adoption of BSC and organizational performance of State corporations in Kenya	Reject H <sub>a</sub> if p value >0.05	p<0.05	The alternative hypothesis was not rejected; therefore there is a significant relationship between rational choice rationale for adoption of BSC and organizational performance of state corporations in Kenya
Objective 2	To establish the relationship between institutional rationale for adoption of BSC and organizational performance of state corporations in Kenya	H <sub>2</sub> : There is a significant relationship between institutional rationale for adoption of BSC and organizational performance of state corporations in Kenya	Reject H <sub>a</sub> if p value >0.05	p<0.05	The alternative hypothesis was not rejected; therefore There is a significant relationship between institutional rationale for adoption of BSC and organizational performance of state corporations in Kenya.
Objective 3	To establish the relationship between management fashion rationale for	H <sub>3</sub> : There is a significant relationship between management fashion rationale for adoption of BSC	Reject H <sub>a</sub> if p value >0.05	p<0.05	The alternative hypothesis was not rejected; therefore There is a significant relationship between management fashion rationale for adoption of

Objective No	Objective	Hypothesis	Rule	p-value	Comment
	adoption of BSC and organizational performance of state corporations in Kenya	and organizational performance of state corporations in Kenya			BSC and organizational performance of state corporations in Kenya.
Objective 4	To determine the combined effect of rationale for BSC adoption and organizational performance of state corporations in Kenya.	H <sub>4</sub> : There is a significant relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya	Reject H <sub>a</sub> if p value >0.05	p<0.05	The alternative hypothesis was not rejected; therefore There is a significant relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya.
Objective 5	To assess the moderating effect of organizational culture on the relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya.	H <sub>a</sub> : Organizational culture significantly moderates the relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya.	Reject H <sub>a</sub> if p value >0.05	P<0.05	The alternative hypothesis was does not rejected; therefore organizational culture moderates the relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya

Based on the results in Table 4.42 a model optimization was conducted. The aim of model optimization was to guide in derivation of the final model (revised conceptual framework) where only the significant variables are included for objectivity. Results in Figure 4.28 were arrived at through running multiple regressions.

#### 4.11.2 Empirical research model

The revised conceptual framework was found by dropping irrelevant variables and retaining those which were significant. The independent variables were also rearranged depending on their influence on the dependent variable. Results of the new conceptual framework are presented in Figure 4.28.



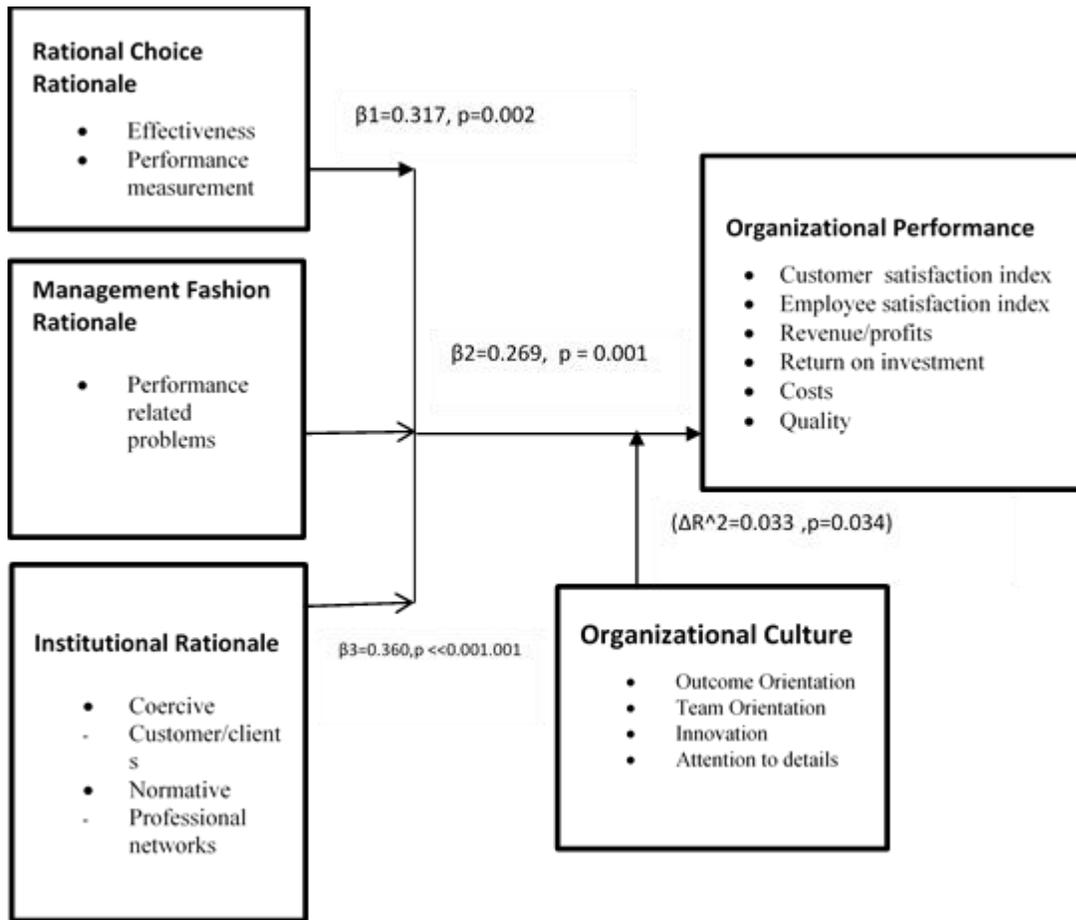


Figure 4.19: Revised Conceptual Framework

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter summarizes the research findings. The data collected and the statistical analysis of the discussions were done with reference to the objectives of the study which was to establish the relationship between rational choice for adoption of BSC and organizational performance of state corporations in Kenya, to establish the relationship between institutional rationale for adoption of BSC and organizational performance of state corporations in Kenya, to establish the relationship between management fashion rationale for adoption of BSC and organizational performance of state corporations in Kenya, to determine the combined effect of rationales for BSC adoption and organizational performance of state corporations of Kenya and to assess the moderating effect of organizational culture on the relationship between rationale for BSC adoption and organizational performance of state corporations in Kenya.

Data was interpreted and the results of the findings were correlated with both empirical and theoretical literature available. The conclusion of the study were directly related to the specific objective of the study been investigated. The recommendations were deduced from conclusion and discussion of the study

#### **5.2 Summary of major findings**

The study sought to explore the relationship between balanced scorecard adoption rationale and organizational performance of state corporations in Kenya. The study specifically looked at the rational choice rationale, institutional rationale, management fashion rationale and their influence on organizational performance of state corporations in Kenya This section contains the summary of the findings.

### **5.2.1 Rational choice rationale and organizational performance**

The first objective of the study was to establish the relationship between rational choice for BSC adoption and organizational performance of state corporations in Kenya. Based on the findings, it was revealed rational choice rationale for BSC adoption is a good predictor of organizational performance of state corporations in Kenya. The findings of this study advanced that whenever an organization adopting a management practice such as BSC, the choice should be made rationally. The findings of this study further confirm that BSC adoption improves effectiveness in operations, and performance measurement. As a result of these, organizational performance will improve. The results confirm the original hypothesis that there is a significant relationship between rational choice for BSC adoption and organizational performance of state corporations in Kenya and further that rational choice rationale for BSC adoption would ensure effectiveness of operations and improve performance measurement.

### **5.2.2 Institutional rationale and organizational performance**

The second objective of the study was to establish the relationship between institutional rationale for BSC adoption and organizational performance of state corporations in Kenya. The findings indicate that institutional rationale for BSC adoption is a good predictor of organizational performance of state corporations in Kenya. From the findings, it is clear that pressure from institutional or social environments, influence adoption of balanced scorecard. The results confirm the original hypothesis that there is a significant relationship between institutional rationale for BSC adoption and organizational performance of state corporations in Kenya further advancing the institutional theory. It is also clear that increase in customer expectation on the usage of BSC significantly relates to increase in organizational performance, and adopting BSC due to influence from partners significantly relates to increase in organizational performance

### **5.2.3 Management fashion rationale and organizational performance**

The third objective of the study was to establish the relationship between management fashion rationale for BSC adoption and organizational performance of state corporations in Kenya. The findings indicate that management fashion rationale for BSC adoption is a good predictor of organizational performance of state corporations in Kenya. The findings confirm that BSC is considered a fad and organizations could be adopting it because of emotional appeal and this could be responsible for its widespread, supporting the notion that anxiety causes a departure from the rational model which further advances the management fashion theory. The results confirm original hypothesis that there is a significant relationship between management fashion rationale for adoption of BSC and organizational performance of state corporations in Kenya.

Further, customer expectations on the usage of BSC and organizational performance had a positive and significant relationship indicating that an increase in customer expectation on the usage of BSC significantly relates to increase in organizational performance, and BSC has been adopted by our organization influence from partners and organizational performance had a positive and significant relationship meaning adopting BSC due to influence from partners significantly relates to increase in organizational performance. Stage two of this study which used real data further confirmed that there is a positive and significant relationship between institutional rationale and organizational performance of state corporations in Kenya. Qualitative results indicated that a good number of organizations adopted BSC because others had implemented it. This they relate to such organizations being able to perform better as a result of adopting BSC.

However, the statement organization's they depend on, expect that they use BSC and organizational performance had a positive and insignificant relationship and the statement competitors who adopted BSC have benefited a lot had a negative and insignificant relationship meaning their increase does not significantly relate to increase in

organizational performance, contrasting earlier beliefs. These could be subject of future research

#### **5.2.4 Combined effect of rationale for BSC adoption**

The fourth objective of the study was to determine the combined effect of rationale for BSC adoption and organizational performance of state corporations in Kenya. The results confirm that rational choice, institutional and management fashions rationales of BSC adoption are good predictors of organizational performance of state corporations in Kenya. Rational choice, institutional and management fashions rationales of BSC adoption are good predictors of organizational performance of state corporations in Kenya. This confirms the fourth hypothesis that there is a significant relationship between BSC adoption rationales and organizational performance of state corporations in Kenya

#### **5.2.5 Moderating effect of culture on BSC adoption and organizational performance**

The fifth objective of the study was to assess the moderating effect of organizational culture on the relationship between BSC adoption rationale and organizational performance of state corporations in Kenya. The findings indicate that culture not a moderator of the relationship between BSC adoption rational and organizational performance of state corporations in Kenya. Culture is only a significant moderator if the choice for adoption is rational choice. Culture is not a significant moderator of to the relationship between institutional rational for BSC adoption, neither is it a significant moderator of the relationship between management fashion rationale for BSC adoption and organizational performance of state corporations in Kenya. Stage two of this study which used actual data presented a contrary finding as far as institutional rationale is concerned, that culture significantly moderates the relationship between institutional rationale for BSC adoption and organizational performance of state corporations in Kenya. This is taken as true this could be a subject of further research

### **5.3 Conclusion**

The heart of this study was to examine the relationship between balanced scorecard adoption rationale and organizational performance of state corporations in Kenya. Based on the previous studies, the components of BSC adoption rationale were expected to have positive relation with organizational performance of state corporations in Kenya. The result of the findings revealed that there was positive significant relationship between rational choice rationale and organizational performance, however, the relationship between institutional rationale and management fashion rationale was negative with regard to organizational performance of state corporations in Kenya. The study further established that culture is not a moderator of the relationship between BSC adoption rationale and organizational performance. It only moderates the relationship between rational choice rationale for BSC adoption and organizational performance.

This finding concludes that success in performance of state corporations depend on their ability to make rational choices before making their adoption decision, institutional and management fashion rationales have a negative relationship with organizational performance and on their own should not be the basis of adoption decision. They should be used together with rational accounts decision. The overall findings of this study showed that even in the absence of these adoption rationales, organizations will still perform. In conclusion, all variables used in this study were found to significantly influence organizational performance of state corporations in Kenya.

### **5.4 Recommendations**

The following recommendations were made based on the findings and conclusion of the study; the findings this study indicate that there is a need to put in place a policy on adoption of management practices by state corporations and other public institutions. This policy should emphasize the need to look at the cost benefit analysis by considering potential costs and benefits in determining whether to adopt or not adopt management

practices such as balanced scorecard. They should stress the fact that institutions should be lucid in choosing the best choice of action. The current practice in adoption of management practices is mainly guided by institutional and management fashions.

The current practice is for state corporations to adopt and use new organizational models ceremonially not for the sake of greater efficiency because policy makers impose management practices or copy what is happening elsewhere. Policy makers should change and ensure that such practices are relevant to the organizations before recommending their adoption instead of imposing them because there is a negative relationship between adoption due to pressures and organizational performance

Policy makers should bring changes to respond to fashion setters such consultants, gurus, and business media with regard to adoption of management practices. They should objectively evaluate such practices before implementation since the relationship between management fashion rationale for BSC adoption and organizational performance is negatively significant.

If the decision to adopt BSC was based on rational choice, organizations should work on improving the culture of their staff before implementing BSC. This is because from the findings, culture a moderator of the relationship between rational choice rationale for BSC adoption and organizational performance of state corporations in Kenya. Policy makers should also note that a positive culture is linked positive organizational performance and if an organizational culture becomes incongruent with the changing expectations of internal and/or external stakeholders, the organization's effectiveness will decline. They should always work on improving culture to support the choice of management system adoption

To the academia in strategic management in the domain of management practices such as BSC can use these findings as a source of empirical literature that can guide in further

studies on BSC. The relationship between rationale for BSC adoption and organizational performance has now been made clearer

### **5.5 Suggestions for further research**

This research is a milestone for future research in the area balanced scorecard adoption and organizational performance of state corporations in Kenya. Therefore, the study has opened up other areas requiring further research indulgence. BSC is a tool that is now widely adopted by many organizations in Kenya, more studies is needed to categorize each organization by the adoption rationale and conduct a comparative study of the rationale they used and the impact on organizational performance. More exploratory studies could be done on the extent to which rational choices, management fashions, institutional pressures, have influenced the adoption of BSC in Kenya. Further research could also explore the moderating effect of culture on the relationship between institutional rationale for BSC adoption and organizational performance of state corporations in Kenya. Further research could also explore the relationship between these BSC adoption rationales on organizational change.

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**APPENDICES**

**Appendix I: Questionnaire**

Dear Respondent,

**REF: BALANCED SCORECARD ADOPTION RATIONALE AND  
PERFORMANCE OF STATE CORPORATIONS IN KENYA**

Thank you very much for this appointment. My name is Joseph Osewe a Doctor of Philosophy (PhD) candidate at Jomo Kenyatta University of Agriculture and Technology specializing in Strategic Management. I am conducting an academic research that seeks to establish the relationship between rationale for balanced scorecard adoption and organizational performance in your organization. Balanced scorecard is strategic is a tool of performance management that maps an organization's strategic objectives into performance metrics in four perspectives namely: financial, customers, internal processes, and learning and growth.

I would be very grateful if you answer all the questions. The information you give will be treated with strict confidentiality. Findings will be made available to all who participate without identifying individuals. Kindly read all the questions carefully and complete them. For each question asked, tick the number that best fits your views. Answer the questions as honestly as possible. For any clarifications, contact Joseph Osewe on 0720408159 or email: **joseph.osewe@judiciary.go.ke**

Questionnaire No.....

**PART A: GENERAL INFORMATION**

- 1. Name of the Organization:

.....

2. When the organization was started.....Town/City.....
3. Designation of the Respondent.....
4. Gender(*Tick one*) Male  Female
5. Organization Size (*No of Employees*) Less than 50  50-100  More than 100
6. Job level :Top Management  Senior Middle Management  Others specify
7. Education level: High School  Diploma  Bachelor's  Master's  PhD  Other (specify)
8. How long have you worked for your organization (*No of Years*).....

**SECTION A: TYPE OF BSC ADOPTED**

9. Kindly indicate by ticking all that apply to the best description of the performance management system implemented in your organization
  - Our organizations performance management system contains financial and non-financial measures that cover the four perspectives of financial, customer, internal processes, learning and growth
  - Our organizations performance management system describes our strategy using cause and effect logic among the objectives in the different perspectives
  - Our organizations performance management system is linked to rewards
  - None of the above

**SECTION B: RATIONAL CHOICE RATIONALE**

Rate the following statements on balanced scorecard adoption in your organization?

Use a scale of 1-5 where 1= strongly disagree, 2= Disagree, 3= Neutral, 4= Agree 5= Strongly Agree

Factor	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
Our organization adopted the balanced score card in order to achieve efficiency in our operations					
Our organization adopted balanced scorecard because it is an effective tool					
Our organization adopted balanced scorecard to be able to more improve performance measurement					

**SECTION C: INSTITUTIONAL RATIONALE**

10. Rate the following Statements on balanced scorecard adoption in your organization

Use a scale of 1-5 where 1= strongly disagree, 2= disagree, 3= Neutral, 4= Agree and 5= Strongly Agree

Factor	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
<b>Coercive pressures</b>					
Our customers/clients expect our organization to have balanced scorecard					
Organizations we depend on expect that we have balanced score card					
<b>Normative pressures</b>					
Balanced scorecard has been adopted by our due to influence from professional networks					
Balanced scorecard has been widely adopted by our customers/clients					
<b>Mimetic pressures</b>					
Our main competitors who have balanced scorecard have benefited a lot					
Our main competitors who have adopted balanced scorecard are perceived favorably by customers/clients					

**SECTION D: MANAGEMENT FASHION RATIONALE**

11. To what extent would you agree with the following Statements

Use a scale of 1-5 where 1= strongly disagree, 2= disagree, 3= Neutral, 4= Agree and 5= Strongly Agree

Factor	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
Our organization adopted balanced scorecard because of influence of management experts/consultants					
Our organization adopted balanced scorecard because influence from our top management					
Our organization adopted balanced scorecard in response to performance related problem experienced					
Our organization adopted balanced scorecard because it is appealing in the market					
We adopted BSC because of the rhetoric's used to market its usefulness					

**SECTION E: ORGANIZANATIONAL CULTURE**

12. To what extent would you agree with the following statements

Use a scale of 1-5 where 1= strongly disagree, 2= disagree, 3= Neutral, 4= Agree and 5= Strongly Agree

Factor	1 Strongly disagree	2 Disagree,	3 Neutral	4 Agree	5 Strongly Agree
Teamwork among employees is practiced in our organization					
Our organization is involves everybody when implementing new innovations					
Our organization has shared beliefs and values					
In our organization has shared mission					
In our organization staff pay attention to details					
Our organization is adaptable to internal and external environment					

**SECTION G: ORGANIZATIONAL PERFORMANCE**

13. Please evaluate your organizational performance since implementing balanced scorecard using following parameters using a scale of 1-5 where 1=Strongly disagree , 2= disagree, 3= Neutral, 4= Agree and 5= Strongly Agree

Factor	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
We have achieved increased revenue/profits					
We have achieved increased return on investment					
Our operating costs have gone down					
Our service quality has improved					
Our customer satisfaction has improved					
Our staff retention has improved					
Our employee productivity has improved					
Our employee satisfaction has improved					

## Appendix II: Secondary Data Collection Schedule

My name is Mr. Joseph Osewe a Ph.D. student at Jomo Kenyatta University of Agriculture and Technology specializing in Strategic Management. I would like your assistance in understanding the relationship between rationale for BSC adoption and organizational performance in your organization. In particular I would like to look at the following aspects; rational choice rationale for BSC adoption, institutional rationale for BSC adoption, management fashion rationale for BSC adoption and the moderating effect of organizational culture on BSC adoption rationale and organizational performance. This will assist me to complete my thesis. Kindly fill out the blank information relating to your organization

1. Surplus revenue generated (revenue above budget) and staff establishment for the years just before implementation of BSC and after implementation of BSC

	Before implementation of BSC			After Implementation of BSC		
Aspect	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Surplus revenue generated						
Staff Establishment						

2. Number of regulatory trainings offered per year before and after implementation of BSC

Aspect	Before implementation of BSC			After implementation of BSC		
	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Number of trainings						

3. Percentage number of sector participants using BSC in the following years

Aspect	Before implementation			After implementation		
	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Percentage using BSC						

4. Research, Development and innovation budget in the following years before and after implementation of BSC.

Aspect	Before implementation of BSC			After implementation of BSC		
	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Amount budgeted						

5. Performance figures in regard to the following before and after implementation of BSC.

	<b>Before implementation of BSC</b>			<b>After implementation of BSC</b>		
<b>Aspect</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Surplus revenue generated						
Customer satisfaction index						
Employee satisfaction index						

**Appendix III: State Corporations with BSC in Kenya**

<b>S.NO.</b>	<b>NAME OF THE STATE CORPORATIONS</b>
1.	GEOTHERMAL DEVELOPMENT COMPANY (GDC)
2.	KENYA ELECTRICITY GENERATING COMPANY (Kengen)
3.	KENYA NATIONAL EXAMINATION COUNCIL
4.	KENYATTA UNIVERSITY
5.	KENYA WILDLIFE SERVICE
6.	KENYA FORESTRY RESEARCH INSTITUTE
7.	RETIREMENT BENEFITS AUTHORITY
8.	KENYA RED CROSS SOCIETY
9.	KENYA BUREAU OF STANDARDS
10.	KENYA REVENUE AUTHORITY
11.	ORANGE TELECOM KENYA
12.	NATIONAL HOSPITAL INSURANCE FUND
13.	KENYA COMMERCIAL BANK
14.	COOPERATIVE BANK
15.	KENYA NATIONAL LIBRARY SERVICES
16.	KENYA BROADCASTING CORPORATION
17.	POSTAL CORPORATION OF KENYA
18.	KENYA FILM CORPORATION

19.	MULTEMEDIA UNIVERSITY
20.	KENYA FILM CENSORSHIP BOARD
21.	CENTRE FOR MATHEMATICS
22.	NATIONAL BANK OF KENYA
23.	UNIVERSITY OF NAIROBI
24.	COMMUNICATIONS AUTHORITY OF KENYA
25.	INSURANCE COMPANY OF EAST AFRICA
26.	NATIONAL SOCIAL SECURITY FUND
27.	COCONUT DEVELOPMENT AUTHORITY
28.	SONY SUGAR COMPANY
29.	KENYATTA NATIONAL HOSPITAL
30.	KENYA AIRPORTS AUTHORITY
31.	NATIONAL CEREALS AND PRODUCE BOARD
32.	TANA AND ATHI RIVER DEVELOPMENT AUTHORITY (TARDA)

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