The applicability of Business Excellence Model as an effective strategy to turnaround state-owned-enterprises: A case of National Railways of Zimbabwe

By

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DECLARATION

I declare that “The applicability of Business Excellence Model as an effective strategy to turnaround state-owned-enterprises: A case of National Railways of Zimbabwe” is my own work, except to the extent indicated in the Acknowledgements, Bibliography and comments included in the body of the report; that it has not been submitted before any Degree or examination in any other university; and that all the sources used or quoted in this document have been indicated and acknowledged as complete references.

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Signature Date

I, Dr Sam Ruturi, declare that the student has completed this dissertation under my supervision as the university's appointed supervisor and can vouch that this dissertation represents his original work.

Dr Sam Ruturi ___________________ __________________

Signature Date
DEDICATION

To all who dream to one day witness true excellence transforming the socio-economic landscape of our beloved Zimbabwe.
ACKNOWLEDGEMENTS

I am particularly indebted to my project supervisor, the never-ending fountain of wisdom, Dr S. Ruturi for his inspired guidance. Your professional guidance eased the intellectual challenges faced and made the journey an eye-opening experience.

Special recognition goes to the Ministry of Transport and Infrastructural Development department of Rail Transport Management, the policy makers of the NRZ operations, for according me access to their operations and facilitating access to the National Railways of Zimbabwe.

To the National Railways of Zimbabwe Manager of Eastern Region, Mr Muponda and all the staff of Eastern Region, thank you for creating time to share your experiences with me.
ABSTRACT

This research sought to explore the scope Business Excellence Model (BEM) as a strategic management tool used in reforming the fortunes of SOE’s. The researcher investigated the impact of culture excellence, the effect of change management strategies and the influence of macro-techniques of quality management on organisational performance. Through investigating these three constructs, a case was made on the applicability of BEM and other turnaround strategies in restructuring state-owned-enterprises (SOE’s).

The researcher adopted a combination of stratified random, stratified systematic and stratified convenient sampling techniques on a population of 391 respondents who responded to a Likert’s 5-point scale questionnaire as the data collection instrument. A sample of 71 was chosen that achieved a response rate of 88.7%.

Several tests to assess the validity, reliability, significance and descriptive component tests such as Cronbach alpha value, Shapiro-Wilk test for normality, Structural Equation Model, regression model tests and model fit test – ANOVA for testing the hypothesis were conducted. The findings were that culture excellence, change management, macro-techniques of quality management, BEM all have a significant impact on organisational performance.

Generally, the researcher concluded that in the context of SOE’s, the Business Excellence Model is an effective strategy to turnaround organisations for improved performance. Several conclusions in respect of the research questions outlined in chapter 1 were made. Key among them were that knowledge sharing, a commitment to be excellent by everyone and focus on leadership all impact positively performance of SOE’s. It was also concluded that empowering cross-functional teams, accurate diagnosis of forces of change and implementation of apposite change principles, adoption business process reengineering, impacted positively the performance of SOE’s.

The researcher recommends several policy, operational and academic strategies. These include urgent adoption of a national BEM; sound commercialisation of operations, adoption of a policy framework on investor engagement and monitoring, technical and leadership skills development, improved monitoring and reporting of financial parameters; enhanced communication and engagement and researching the impact of BEM on other organisation through time.
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LIST OF ABBREVIATIONS AND SYNONYMS

BEM - Business Excellence Model
BPR - Business Process Reengineering
EFQM - European Foundation for Quality Management Excellence Model
IMF - International Monetary Fund
JNR - Japan National Railways
KMO - Kaiser-Meyer-Olkin
MBL - Masters In Business Leadership
MBNQA - Malcolm Baldrige National Quality Award
MoTID - Ministry of Transport and Infrastructural Development
NRZ - National Railways of Zimbabwe
OAGZ - Office of the Auditor General Zimbabwe
PCA - Principal Component Analysis
RBM - Results Based Management
SOE - State Owned Enterprise
SPSS - Statistical Package for Social Sciences
TQM - Total Quality Management
WB - World Bank
CHAPTER ONE: INTRODUCTION

1.1 Introduction

Twenty first century has been characterized by various megatrends, chief being global competitiveness. Hajkowicz, Cook and Littleboy (2012) identify a megatrend as a major shift in environmental, social and economic conditions that will substantially change the way people live. Considering the cut-throat competitive environment businesses are operating in, organisations must adapt through adopting relevant strategies to not only survive but to be the market leaders (Chen and Jang, 2011; Jha and Joshi, 2007). Quality improvement has been the common denominator in most competitive strategy formulations where it has been viewed as both an opportunity and a threat (Agrawal, 1999). On one hand Regan (2012) in concurrence with Agrawal (1999), regards quality management as an opportunity because there is a chance to improve quality and achieve excellence while on the other hand it is regarded as a threat because failure may consign the organisation to history (Jha & Joshi, 2007).

The quality movement has gone through transformative stages from the end-product inspection mode, to prevention mode were quality was built in the manufacturing process, to the enterprise-wide focus that departed from focusing on manufacturing but focused on encompassing the needs of the internal and external customers.

While significant strides have been made in the private sector and indeed the public sectors of most developed countries, our Zimbabwean public sector has been lagging in providing world class service to the citizenry or contributing to the fiscus. Various reform efforts have been instituted by the government to improve the fortunes of State-Owned-Enterprises (SOE’s) with little success. This research seeks to explore the scope of quality excellence in reforming the fortunes of SOE’s. To this end, the researcher will make a case for the adoption of a Business Excellence Model (BEM) as the base framework to conduct restructuring efforts at National Railways of Zimbabwe (NRZ).

This Chapter of the research sets the tone to the rest of the study. It begins with the contextual background to the study, the statement of the research problem and justification of the research problem where the researcher chronicles challenges facing
SOE in general and the National Railways of Zimbabwe in particular. Research objectives and accompanying research questions are discussed leading into the main and sub hypothesis section. The scope of research ensues followed by the significance of the study to various subgroups, i.e. cascading from a national level to the individual researcher level. As the chapter progresses, limitations and delimitations as well as structure of the study are discussed. The chapter concludes with a summary of the study.

1.2 Contextual Background to the Study

This section of the background of the study looks at history of SOE reforms instituted by government. The discussion will narrow on to the challenges being faced by National Railways of Zimbabwe an SOE that the researcher has chosen as a case study representative of SOE sector. Specifically, the researcher looks at the origins public sector reforms, organisational, operational, financial and human capital inefficiencies being experienced at NRZ and will round up with corresponding type of reforms adopted over the years to address the above-mentioned inefficiencies.

1.2.1 Origins of public sector reforms

Zimbabwe public sector reform efforts date back to the early 1990’s where the government on the economic front was failing to match projected budgetary allocation which needed to support social reforms (Zhou, 2000). While the government scored substantial achievements in education and health during the first decade of independence, these successes were not matched by corresponding economic growth and rising per capita income (Zimbabwe: A Framework for Economic Reform, 1991). Central government debt had reached 71% of GDP, of which 36% was external debt (Budget Statement, 1990).

Against these economic hardships, the need to control government expenditure, particularly the huge subsidies to the parastatal sector, was glaringly imperative. Furthermore, while it had been possible to underwrite public enterprise inefficiencies with huge subsidies in the early 1980s, by the1990s, a host of exogenous and endogenous problems had emerged to constrain the fiscal capacity of the treasury. There was also increasing pressure for tight budgets from the two international financial institutions, the World Bank (WB) and the International Monetary Fund (IMF). This
international pressure received backing from the domestic front, as it was generally agreed that the Zimbabwean budget deficit had become unsustainable (Social Change, 1993). It was in these circumstances that the Zimbabwe government, though still sentimental (Herbst, 1990), adopted public enterprise sector reforms in 1991.

Despite the initial effort to reform State Owned enterprises (SOE) in the 1990’s, SOE’s are still failing to meet the public interest perspective in so far as the provision of goods and services for socio-economic development is concerned (Newsday, 2015)

Reform efforts have taken the mold of restructurings with endeavours still predominantly pronounced in public sector where the government is leading efforts to improve the fortunes of badly performing parastatals and government departments. This is not to ignore developments that have been happening in the private sector where pronounced efforts have been notable in the banking sector particularly the 2008 financial meltdown. Another example is noted in the Asbestos mining sector particularly the Mashava Asbestos Mine reformation. Public sector restructuring has involved a number of strategies such as commercialization, privatization, downsizing, management contracts and joint ventures (Chavunduka, et al., 2014). Recent efforts have taken the perspective of the impact of organisational culture on restructuring albeit, despite all the academic endeavors, no significant improvement in performance of these enterprises has been observed.

The purpose of this research is to determine whether the adoption of a Business Excellence Model (BEM) can be used to create leverage for the performance of State Owned Enterprises (SOE).

As of 2014, Zimbabwe had seventy-eight (78) SOE with varying interests in the economy with a capacity to contribute 40% to the country’s Gross Domestic Product if fully operational (Chavunduka, et al., 2014). Currently, 2018, the listed number of SOE has jumped to one hundred and seven (107) (www,sera.co.zw). Most SOE’s have benefited from government subsidies extended to cover the costs resulting from their loss-making and inefficiencies (Sikwila, 2012). Both civil and civic society is concerned with the huge losses being made by some of these public enterprises despite
the intentions of their creators for them to make profit. Government has set up commissions of inquiry on their underperformance, but these efforts have not yielded much (Zhou, 2012; Sikwila, 2012). There is no clear way forward for these entities; little wonder the pace of restructuring has been agonizingly slow despite the heavy subsidies to these SOE that are a major drain on the already weak fiscus.

The poor performance of SOE’s in Zimbabwe contrasts sharply with certain other public enterprises which are effectively used as “cash cows” by their national treasuries. In such economies, SOE’s contribute significantly towards growth. A case in point is the success story in China and the rest of the BRICS (Brazil, Russia, India, China, and South Africa). The Chinese economy is run through SOE that are viable, well-managed and have adequate capacities (Capobianco and Christiansen, 2011). This unsatisfactory performance has led the Government to adopt restructuring of these enterprises.

Research has shown that restructuring efforts of public enterprise sector in Zimbabwe has been ongoing for the better part of the past three decades with each decade taking a distinct form of restructuring approach (Zhou, 2012).

First decade reforms were state-initiated and expansionary, fundamentally concerned with reconstituting public enterprises into majority-interest-driven entities this against the background of unsustainable oversized, overregulated, inefficient, debt-ridden and subsidy-dependent public enterprise sector with a cumulative aggregate expenditure of 10 percent of GDP (Zhou, 2000 and 2001; Herbst, 1990; ZIMCODD, 2001).

The second phase restructuring approach had an external-driven bias, emphasizing the rolling back of the public enterprise sector through liberalization, deregulation, commercialization and privatization. Examples include The Grain Marketing Board (GMB), The Cold Storage Company (CSC), Dairy Zimbabwe Limited (DZL), and Cotton Company of Zimbabwe (Cottco) (Zhou, 2012).

Third decade restructurings can be classified into time zones, restructuring under socioeconomic meltdown (2000-2008) and Restructuring under the Inclusive Government (2009-2012). The approach was pro unbundling route, breaking state
monopolies into small, business-oriented entities. Significant examples are The National Railways of Zimbabwe (NRZ), The National Oil Company of Zimbabwe (NOCZIM), The Zimbabwe Iron and Steel Company (ZISCO), Zimbabwe Electricity Supply Authority (ZESA), Grain Marketing Board (GMB), Air Zimbabwe (Zhou, 2012). The sad reality is three decades later, Zimbabwean public enterprise sector remains a sorry state of loss making and debt-ridden entities with a voracious appetite for fiscal support.

Could the outcome be any better had Zimbabwe undertook the restructuring efforts under a comprehensive framework of a business excellence model sponsored by the government? It has been observed that significant improvements are achieved only when a change process is embedded in the socio-cultural system. The Japanese quality programs have been successful within their own cultural and social framework. The Baldrige award designed for American socio-cultural system has been continuously improved and was given a paradigm shift to make it more suitable to them. The most effective implementation involves moulding quality to fit a particular culture (Agrawal, 1999)

1.2.2 The National Railways of Zimbabwe Story
The study focuses on the case of the National Railways of Zimbabwe (NRZ) as a classic example of an SOE in dire straits. Despite numerous interventions that the government has implemented to reform NRZ, little has been done to resolve the challenges affecting the parastatal. Visible movements are being observed from the 2016 spilling into 2017 were investors have been identified and are moving to recapacitate the SOE.

1.2.3 Challenges facing National Railways of Zimbabwe
The National Railways of Zimbabwe (NRZ) born from the then Rhodesia Railways by an act of parliament in 1979. It is a designated corporate body wholly owned by the Government of Zimbabwe and as such operates in accordance with the public-sector rules and regulations, as amended from time to time. It was established to provide, operate and maintain an efficient system of public transportation of goods and passengers by rail (National Railways of Zimbabwe, 2018).
The NRZ operates a rail network stretching 2760 route kilometers of 1067mm gauge track. The geographical setting of the NRZ provides a major strength as it is conveniently located at the center of the Southern African Region and interfaces with contiguous railways on export/import route entries at Mutare/Machipanda for Beira, Sango/Chicualacuala for Maputo, Beitbridge for South Africa, Plumtree for Botswana and Victoria Falls for Zambia. The NRZ’s central position in the southern African Region makes it the ‘hub and gateway of the region’ (National Railways of Zimbabwe, 2018) (Mbohwa, 2008).

The institution has seen glory days peaking in 1985 with a fleet of 30 electric locomotives, 87 steam locomotives and over 300 diesel locomotives of all types (SWECO, 1985). However, the NRZ has been bedeviled by a plethora of challenges that has hampered it from discharging effectively its mandate alluded to in its mission.

1.2.3.1 Operational and organisational inefficiencies

NRZ’s demise is summarised by the World Bank report as being an eight million-tonne slide in freight traffic between 1990 and 2005 (World Bank, 2006). The report observes a fall from the 18 million tonnes of goods moved in 1990 to about six million tonnes per year during the years 2003, 2004 and 2005 precipitating massive losses in revenue. The decline in freight has continued in the past decade with about 3.8 million tonnes being carried in 2008 and only 2.7 million tonnes in 2009, equivalent to about 15 percent of the original design capacity of 18 million tonnes (Parliamentary Committee on Transport and Infrastructure Development GOZ, 2012; Chiguvi & Magwada, 2016). The demise is also evident in passenger traffic falling from 17.4 million in 2007 declining to about two million in 2009. Infrastructure has not been spared as the NRZ’s wagons have long gone beyond their designed economics life span of 40 years (Chiguvi & Magwada, 2016). Out of the 309 passenger coaches owned, only 130 were in service in 2012 notes Chiguvi and Magwada (2016). The figure could be worse present day. The nearly 58% of the coaches are in a deplorable and unsafe state. Legacy issues emanating from the UDI period 1965-1980 continue to haunt the SOE as there is scarcity of spare parts of the diesel locomotive fleet procured during that era of sanctions consisting of locomotives from General Motors and General Electric in the USA, Germany, France and the United Kingdom.
1.2.3.2 Financial inefficiencies

The 2016 report to Parliament of Zimbabwe on State Enterprises and Parastatals by the Office of the Auditor General noted the following as an emphasis of matter “I draw your attention to the fact that National Railways of Zimbabwe is in a net current liability position of $219 573 666 (2015: $170 912 721). The Railways also incurred a net loss of $59 768 613 (2015: $ 40 887 993) contributing to a cumulative loss of $ 336 200 901. This cumulative loss and net current liability position, along with other matters indicate the existence of a material uncertainty that may cast significant doubt over the NRZ’s ability to continue as a going concern” (Office of the Auditor General Zimbabwe, 2017 p 157)

The SOE has been plagued by losses in recent years despite various efforts of reforms. The 2014 Auditor General Report noted that the parastatal’s passenger unit had revenues of $3,2 million against expenditures of $10,9 million (Office of the Auditor General GOZ, 2014). In 2013 the parastatal made losses of $49,1 million, in 2014 it lost $31,6 million and in 2015 it lost $40,88 million (Office of the Auditor General GOZ, 2013; 2014; 2015). The audit reports attribute the losses to low revenue due to capacity constraints, a rigid and inefficient tariff structure, excess staff levels and poor utilisation of assets, which mostly reflected on poor NRZ management and the impact of Government control on business decisions and tariffs. It was estimated that by 2016 NRZ required $653 million for infrastructure and new equipment and it also owed its workers $70 million in salary arrears (Parliamentary Portfolio Committee on Transport GOZ, 2016).

1.2.4 Reforms instituted on NRZ

Reform efforts have been instituted over the turbulent years. A report by the African Development Bank highlight organisational, operational, human resource and financial restructuring efforts undertaken from the 1990’s.

1.2.4.1 Organizational restructuring

It has focused on separation of road services department from the railways leaving NRZ to focus on railways, agreement of stiff performance targets between government and
key management (African Development Bank, 2010). The former Chief executive officer announced in 2012 that NRZ restructuring would be anchored on vertical separation. In this scenario ownership and maintenance of infrastructure will be removed from running the system. New players would be brought in adding NRZ would operate toll gates.

1.2.4.2 Operations restructuring
Has taken the mould of introducing a flexi system for the allocation of drivers, an increase in the number of block and customer-dedicated trains, increase in the minimum chargeable load to correspond to the capacity of wagons, setting stiff targets for availability, utilization, and reliability of locomotives and rolling stock, using cost-benefit analysis as the basis for investment decisions, introduction of commodity-based tariffs, and moving away from general tariffs to customer contracts.

1.2.4.3 Financial restructuring
Debt restructuring, and stricter expenditure control have been the main strategies under financial restructuring to maintain NRZ’s responsibility for servicing debt pertaining to active revenue-generating assets only. Since dollarisation, NRZ was allocated US$7 million in 2009, US$12 million in 2010, US$15 million in 2011, USD 20 million in 2012 (The Independent, 2012) although the company managed to access only half of the amount.

Recent restructuring efforts have taken the face of recapitalisation with the Diaspora Infrastructure Development Group (DIDG), a consortium of 500 non-resident Zimbabwean professionals, in partnership with South Africa’s Transnet, was announced winner of the $400 million NRZ recapitalisation tender in August 2017 (Financial Gazette, 2017).

1.2.4.4 Human capital restructuring
Efforts have been on staff reduction to lower personnel expenditure from close to 70 percent of revenues to less than 40 percent. The former Chief Executive Officer Mr. Karakadzai was quoted as saying that NRZ was capable of operating with only 5 000 of its 9 000 employees but a decision had been made not to retrench (The Independent,
Currently, salaries are interchangeably staggered among the employees. (The Standard, 2013) reported that, workers’ morale was at the lowest ebb and they have, on several occasions, embarked on industrial action to force the company to improve their wages and working conditions.

The African Development Bank (2010) conclude that the above restructuring efforts have aided in reducing the overall deficit, slowed down the rate of fresh investment, and enhance management capacity, but the goal of complete financial self-sufficiency has yet to be achieved.

1.3 Statement of the research problem

The foregoing background of the study is given as a litany of exhibits that point to the serious challenges that NRZ is facing. Key amongst these challenges is dilapidated infrastructure, loss of skilled tradesmen, engineers to support the reform efforts, failure to break away from the traditional monopolistic posture. NRZ monopolizes the use of its rail road instead of opening it up to the private sector interested to venture in transport business moving cargo and passengers. The challenges include failure to have adequate working capital to support salaries and wages and general overheads of the business.

This therefore leads the researcher to make the research statement that if the reform efforts being initiated by government are not implemented with the urgency they deserve using an appropriate strategic turnaround tools the general malaise affecting NRZ would persist. This would lead to some serious national socio-economic tragedies.

It is against this background that the researcher intends to explore the research problem; “Is there a significant relationship between restructuring a SOE, National Railways of Zimbabwe, under a Business Excellence Model framework and the State-Owned Enterprises’ improved performance?

1.4 Justification of the research problem

Nearly three decades after initial reform efforts, the SOE’s in Zimbabwe remain depended on government for support e.g. NRZ, Air Zimbabwe etc. The pace of SOE’s restructuring in Zimbabwe lags policy pronouncements.
This research has identified a gap in the research material that the researcher intends to explore. The researchers’ perspective is on the adoption of a national Business Excellence Model (BEM) as an overarching framework to not only conduct the turnaround efforts but also to enhance the performance of seemingly better performing entities. A BEM is essentially a framework of integrated leadership and management systems that describes elements essential to sustainable organisational excellence.

1.5 Research Objectives

Emanating from the Statement of the Problem and Justification of Research articulated above, the researcher makes the following research objectives:

- To investigate the impact of culture excellence on organisational performance of SOE.
- To assess the effect of change management strategies on organisational performance of SOE’s adopting BEM.
- To examine the influence of Macro-Techniques of quality management on organisational performance of SOE’s adopting BEM.
- To establish the applicability of Business Excellence Models in the restructuring of State-Owned-Enterprises
- To identify turnaround strategies appropriate for SOE’s restructuring under a business excellence framework.

1.6 Research Questions

Arising from the Research Objectives above, the researcher formulates the following research questions;

- What is the impact of culture excellence in the organisational performance of SOE’s?
- What effect does change management strategies have on organisational performance of SOEs adopting BEM?
- What influence do macro-techniques of quality management have on organisational performance of SOEs that have adopted a BEM?
- Is the concept of Business Excellence applicable in the restructuring of SOE’s?
- What are the appropriate turnaround strategies for SOE’s undergoing restructuring under a business excellence framework?
1.7 **Research Hypothesis**

Main research hypothesis is stated as follows;

H₀: The Business Excellence Model does not lead to improved organisational performance

H₁: The Business Excellence Model positively leads to improved organisational performance.

The researcher also formulated specific research hypothesis in respect of the adjunct research objectives alluded to above as follows;

With respect objective 1;

_H₀: Culture excellence does not lead to improved organisational performance_  
_H₁: Culture excellence leads to improved organisational performance_

With respect objective 2;

H₀: Change strategies have not lead to improved organisational performance  
H₂: Change strategies have led to improved organisational performance

With respect objective 3;

H₀: Macro-Techniques of quality management do not lead to improved organisational performance  
H₃: Macro-Techniques of quality management do lead improved organisational performance

1.8 **Scope of the research**

While there are four distinct divisions in NRZ separated on geographical basis i.e. The head office in Bulawayo, Southern Region, Eastern region and Midlands region, primary research was conducted on the Eastern Region headquartered in Harare for the convenience it offered to the researcher. The research targets the views of NRZ executives, line managers, supervisors and shop floor officers. It will also include the views of policy makers in the Ministry of Transport and Infrastructure Development.
The research will involve a review of extant literature on five broad areas informed by the research topic i.e. culture excellence, change management, macro-techniques of quality management and lastly restructuring techniques.

1.9 Significance of study

This research problem raises a heightened awareness amongst a significant number of stakeholders who are affected by the poor performance of SOE’s and the reform initiatives being adopted. The main stakeholder groups who are impacted by this research are the Zimbabwean population, Zimbabwean government, the NRZ staff compliment, research academia fraternity and lastly the researcher himself. Discussed below are the detailed impact on each stakeholder group mentioned.

1.9.1 Zimbabwean population

The findings of this research will be most beneficial to the Zimbabwean population who have endured years of fiscal drain by non-performing SOE at the expense of investment in social infrastructure. Efficient allocation of resources has been hampered because of the fiscal drain by non-performing SOE. It is the hope of the researcher that the study findings will provide a framework to setup the sustainable revival of poor performing SOE’s thus lessening the financial burden on the fiscus.

1.9.2 Government of Zimbabwe

Efforts and resources spent by the government in restructuring SOE’s can better be channeled elsewhere in resuscitating the economy. To this end, the research provides government especially the Ministries of State Enterprises and Ministry of Industry and Commerce with a framework to drive government agenda of self-sustenance of SOE that should be contributing to the country’s Gross Domestic product. The research findings have the potential of increasing the confidence on government intervention as the government will be actioning basing on solid research-based interventions.

1.9.3 State-Owned-Enterprises

SOE’s that apply the proposed BEM framework will experience superior performance in their restructuring programs and are better placed to have sustainable competitive advantage into the future. The research will provide a template that explore reform
efforts and offers guidance on how Zimbabwean SOE’s can plan for successful and sustainable restructuring projects.

1.9.4 **The National Railways of Zimbabwe**

The NRZ, being the case study subject matter, stand to benefit the most as the research provides a system thinking approach to reform efforts. It has taken the organisation long to attract serious investors and with the coming on board of Diaspora Infrastructure Development Group (DIDG), NRZ is on the verge of making impactful and sustainable performance improvement. The research recommendations of the adoption of a business excellence culture sets the tone for efficiency, effectiveness and economy of decision making.

1.9.5 **Research academia fraternity**

The research will provide the linkage required between academia and industry in bringing up relevant practical solutions to challenges facing rail industry. It provides a new body of knowledge that both academics and industry can review in improving decision making and strategy implementation.

1.9.6 **Individual researcher**

Significance of the research to the researcher hinges on career development prospects presented by the in-depth grasp into the applicability and implementation of a business excellence framework in an SOE, an environment under which the researcher is employed in. Furthermore, the understanding of the academic fields of business excellence, restructuring strategies and change management presents the researcher with an opportunity to be a consultant in public sector reforms.

1.10 **Limitations to the study**

The most apparent limitation as earlier alluded to in the scope of research is with respect to geographical spread of NRZ operations. The NRZ is head-quartered in Bulawayo that also doubles as the regional head of Southern Region operations that encompasses Hwange office. There is also the Midlands Region with head office in Gweru and lastly the Eastern Region operations headquartered in Harare but encompassing Mutare
operations. The vast spread presents a challenge to the researcher as both time and financial resources do not allow visiting each office. The researcher proposes to concentrate on Eastern Region operations based in Harare as it is where the researcher is based in.

Conclusions drawn from this research may only valid for the SOE restructuring and how the BEM interlinks. Generalizations may not be extended to private sector restructuring.

1.11 Delimitations
The researcher is employed by Zimbabwe National Roads Administration (ZINARA) a fellow SOE under the same ministry as the case study SOE NRZ. Both entities report to the Ministry of Transport and Infrastructure Development. The researcher stands to have greater access to the case study organisation utilizing relationships that have been cultivated with the parent ministry.

1.12 Structure of the study
The research will follow a five-chapter structure commencing with Chapter One–Introduction that amongst other things, introduces the research topic, discusses the contextual background, statement of the problem, outlines the research objectives and research questions and ends by providing a diagrammatical presentation of the conceptual summary of the research design.

Chapter Two–Literature Review, soon follows and is tasked with providing a critical review of extant literature germane to business excellence, culture excellence, change management, macro-techniques of quality and restructuring of organisations.

It is followed by Chapter Three–Research Methodologies, that illuminates the overall research design, philosophies, approach, population and sampling strategy adopted for the research. The chapter concludes with a discussion of the way in which research ethics, reliability, validity and credibility were managed and built into this research.
Chapter Four-Data Analysis and Research Findings investigates the inherent meaning of the research data obtained from the empirical study. The research ends with Chapter Five-Conclusions and Recommendations that synthesise the findings with existing literature and clearly answer if the research objectives and questions have been answered.

1.12.1 Conceptual Summary of Research Design

Figure 1.1: Conceptual summary of the research design

Source: Primary Research Data
The conceptual summary of the research design shows the approach undertaken from topic formulation, statement of problem to research conclusion. Figure 3.1 above depicts a conceptual design of the research map that was taken beginning with topic formulation, statement of the problem, review of literature using key concepts that were also applied in the primary investigative analysis that gave rise to the analysis of the research findings discussion which then allowed the researcher to synthesise the conclusions.

1.13 **Chapter Summary**

The chapter has laid the foundation to the research by discussing extensively the contextual background to the study that has given rise to the statement of the research problem and its justification. The research objectives and subsequent research questions have been formulated culminating in the formulation of the main research hypothesis and adjunct hypotheses. The chapter has also laid the boundaries of the research in discussing the scope of the research, limitations and delimitations to the study. The researcher summarised the respective significance of the study to the various stakeholders stretching from the generality of the Zimbabwean population to the individual researcher. The chapter rounded off with a diagrammatical description of the research plan as discussed under the conceptual summary of the research section.
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The ensuing sections discuss extensively the linkages on the theories of culture excellence and the theories of national culture, organisational culture, restructuring and change management. Each section seeks to give a critical review of extant literature that seeks to establish the interrelationships of the key components of culture excellence with improved organisational performance.

The researcher lays the foundation of the study in past theories relating to culture excellence, change management and quality management macro-techniques illustrating empirical evidence that has supported achievement of improved performance. The chapter is concluded by restructuring strategies that have been adopted by national railway entities across the globe.

2.2 Theoretical foundations and Research Gaps/ Anomalies

Theoretical foundations refer to guiding pillars that anchors research in theory while also determining what variables need to be measured and what statistical correlations and relationships should be looked for. The ensuing Table 2.1 provides a synthesis of literature underpinning this research. The research’s key theory schools of thought are divided into four broad areas namely, culture excellence, change management strategies, macro techniques of quality and lastly SOE’s restructuring strategies. The last column focusses on existing gaps/ anomalies on existing theories.

Table 2.1: Theoretical Foundations and Research Gaps

<table>
<thead>
<tr>
<th>Key Concept/ School of thought</th>
<th>Principal Author(s)</th>
<th>Adjunct Author(s)</th>
<th>Key concept</th>
<th>Research gap/Anomalies</th>
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<tbody>
<tr>
<td></td>
<td>Hofstede, G (1980); Schein, E (1985)</td>
<td>National Culture</td>
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<td></td>
<td>Johnson and Scholes, (1999); Schein, E (2004)</td>
<td>Organisational Culture</td>
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<td></td>
<td>EFQM (2002; 2013)</td>
<td>Dimensions of an Excellent organisation</td>
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<td></td>
<td>Kotter &amp; Heskett, (2011)</td>
<td>Corporate culture and Performance</td>
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## Change Management: Three Step Model

<table>
<thead>
<tr>
<th>Group dynamics</th>
<th>Force Field Analysis</th>
<th>Action Research</th>
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<td></td>
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<td>Leading complex change</td>
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### Macro-Techniques of quality management:
- Benchmarking: Hammer, (1990);
- Total Quality Management: Feigenbaum, (1956);
- Results Based Management: Mayne, (2007); (Wauters, 2013)

### Restructuring Techniques
- Liberalization, deregulation, commercialization and privatization
- New Public Management Theory

|--------------------------|------------------------------------------------|-------------------------------------------------|--------------------------------------------------|

Source: Primary Research Data

### 2.3 Impact of Culture Excellence on Organisations

Groundbreaking research, In Search of Excellence (Peters & Waterman, 1982) asserts that secret of success for organisations is grounded in a commitment to such irrational, difficult-to-measure items such as people, quality, and customer service. To this end the researchers concluded that excellent companies believed in the importance of superior quality and service, and they value people as individuals. Eight core characteristics were identified that where consistently exhibited by these companies here-in summarised as: A bias for action, Closeness to the customer, Autonomy and entrepreneurship, Belief in productivity through people, A hands-on, value-driven operation, A tendency to stick to the knitting, A simple form and a lean staff, Simultaneous, loose-tight properties i.e. autonomy at the shop-floor level combined with fanatic adherence to certain ideals (Peters & Waterman, 1982)
A performance impact study in the Asian region (NUS, 2012) asserts that organisations that are certified to the business excellence standards are 11.5% more productive, with a profit margin that is 13.5% higher than industry counterparts. The bold declaration by the National University of Singapore resonates with a study on building sustainable cultures of excellence that equally asserts that a powerful way to affect a breakthrough in organizational effectiveness is to design and work in a culture of excellence (Davidson, et al., 2011). Culture of excellence is, at the core, out of the ordinary (Suciu, 2017). Creating such a culture requires a vision of what is possible, a plan to set it in motion, and the practices to generate it on an ongoing basis.

The supremacy of a culture excellence is captured by Kotter & Heskett (2011) in their eleven-year study that documented results for 207 large United States based companies. An increase in revenue by 682% was recorded on organisations actively following a culture of excellence as compared to 166% revenue growth for the companies that did not manage their cultures well. Equally observable was the gap on net income increases where 756% was attributable to culturally well managed organisations as compared to just 1% for organisations that did not manage their cultures (Kotter & Heskett, 2011). Waterstone Human Capital (2010) corroborate the findings concluding that there is a direct correlation between a positive corporate culture and corporate performance.

Kanter (1989) one of the leading researchers on cultures that drives high performing organisations, articulates seven skills that characterise the most successful “business athletes”. Foremost she singles out the ability to get results without authority, through influence alone. This is supported closely by competing positively, through cooperation, rather than negatively through aggression. Thirdly, she highlights maintaining the highest ethical standards across board supported by the fourth skill of self-confidence tempered by humility. Her fifth skill emphasise importance of process for getting things done. Relationship building, across functions, departments, and organisations. Borrowing from the works of McClelland (1961) on individuals with a high nAch, Kanter highlights the achievement focus as a last skill needed in an excellent organisation.
Ghemawat & Reische (2011) posits that culture can be understood as a group phenomenon that distinguishes people of one group from another. This allows for culture to be dissected at various levels of existence i.e. at national, organizational or at business unit. The ensuing sections discusses the role of national and organisational cultures in developing culture excellence.

2.3.1 National Culture

Hofstede’s (1980; 1991) research on national culture has set the tone for many researchers on the area of culture excellence (Smith, 2006). Hofstede viewed culture as programming of mind (Hofstede, 1991). His concept was that humans differed from the programmed computers in that humans have basic ability to deviate from their cultural programs in creative ways thus certain reactions are more likely in certain cultures than in others (Hofstede, 1991).

Hofstede (1980) observed that differences in culture can be captured through the differences in four values i.e. (1) power distance i.e. the degree of dependence between boss and subordinate; (2) collectivism-integration into cohesive ingroups versus individualism which is the degree in which everyone is expected to look after him or herself; (3) Feminity versus masculinity i.e. masculinity is high in societies in which social genders roles are clearly distinct while femininity is high when those roles overlap; (4) Uncertainty avoidance i.e. the extent to which the members of a culture feel threatened by uncertain or unknown situations. Contemporary researchers (Daniels & Greguras, 2014) make mention of a fifth dimension, long versus short-term orientation, and more recently a sixth dimension, indulgence versus restraint, has been added (Hofstede, et al., 2010)

The above differences are true at a national level (Hofstede, 2016). Ghemawat & Reiche (2011) observe that individuals in cultures demonstrating a high power-distance are very deferential to figures of authority and generally accept an unequal distribution of power. In contrast, individuals in cultures demonstrating a low power distance readily question authority and expect to participate in decisions that affect them (Li, 2015).
Hall (1959;1990) proposed the high and low context cultural factors. He theorised that in a high-context culture, there are many contextual elements that help people to understand the rules. As a result, much is taken for granted. This can be very confusing for person who does not understand the unwritten rules of the culture. In a low-context culture, very little is taken for granted. Whilst this means that more explanation is needed, it also means there is less chance of misunderstanding.

Hofstede’s work is without criticism. Some scholars doubt the usefulness of operationalizing culture through a series of numerically measured dimensions, some preferring to use richer qualitative techniques (MacSweeney, 2002). Schwartz and Bilsky (1990) and later Javidan et al (2006) base their argument on cultural convergence phenomenon and criticise the generalization of dimensions measured in the 1960’s to current day. They argue that insufficient aspects of culture are considered by Hofstede’s theory and point to the United States and specifically IBM’s centric nature of Hofstede’s data and therefore doubt its generalizability.

To sum up the relevance of national culture in this research, the researcher borrows on work of Drucker (2012) who observes that what managers do is the same in the whole world, but how they do it can be entirely different. This places importance on the national level in developing a culture of excellence. Smale (2016) perceive national culture as being highly influential in moderating the cognition and behaviour of groups and individuals. As was concluded by Matijević, et al (2015), an understanding of culture (national culture included) can equip persons (and nations) for the challenges of modern business environment.

2.3.2 Organisational Culture
Organizational culture represents attitude of the organization as well as the forms of its appearance (Štok, et al., 2010). It has been defined as patterns of strong shared values, assumptions, expectations, attitudes and norms that are not easily altered which bind an organization together (Deal and Kennedy, 1982; Schein, 2010). Organisational culture is of relevance on effective implementation of strategies (Wilkins and Ouchi, 1983, Zheng etal., 2010). Various researchers assert that organisational culture is significant in organisational behaviour and performance (Peters and Waterman 2004; Schein
The claim is buttressed by the call for business leaders to diagnose organisational culture in the quest towards organisational effectiveness (Gamage, 2006).

The concept of organisational culture can better be understood through the interpretation of levels of culture (Schein 2004; 2010). Schein identifies three culture levels that refers to the degree to which a cultural phenomenon is evident to the observer. The first level encompasses artefacts that are visible, heard or felt when a member enters a new culture. The second level involves adopted values expressed through strategies, goals and philosophies. Values that are perceived as ‘good’ slowly start to transform into shared assumptions that exist at the third level. Shared assumptions are taken-for-granted to such an extent that they are unquestioned and hence are extremely difficult to change (Schein, 2010).

An organization, as a shared meaning system, can learn, change itself, and evolve over time through the social interaction among its members and between itself and the environment (Nonaka and Takeuchi, 1995). The recognition that organisations have capacity to change either intrinsically or from external forces grounds the research objective on restructuring in theory.

Organizational culture which does not consider knowledge sharing and dissemination of knowledge to be important hinders attainment of superior business performance (Senge, 1990; Rastogi, 2000). Furthermore, an appropriate communication structure, interpersonal relationships, motivation, stimulation and values as part of organizational culture positively affect business excellence in enterprises (Štok, et al., 2010).

2.3.3 Culture Excellence

This section narrows down on the first research objective i.e. to assess impact of culture excellence in the sustainable transformation of businesses.

Excellence is a combination of values, incentives and activities whose interaction result in outstanding achievements (Štok, et al., 2010). The preceding sections on national and organisational culture have been a build up to the discussion on how they contribute to the achievement of a culture of excellence.
The concept of culture excellence has been captured as an organization-wide way of thinking and working that leads to a sense of aliveness in everyone in the organization (Goetsch & Davis, 2014). A culture of excellence is a conspiracy to excel (Arussy, 2008) a commitment to be excellent, the state, quality, or condition of excelling leading to superiority (Qawasmeh, et al., 2013).

The culture of excellence is built and sustained by several aspects that interlinks and give character to an organisation (Hui & Chuan, 2002). These include; establishing a shared strong vision and mission; forming shared policies and strategies; commitment to excellence in fulfilment of the vision and mission; management values and ethics; people development emphasizing training and development of staff (Peters and Waterman 2004; Schein 2004); empowerment and innovation; individual performance objectives set jointly by management and staff; people well-being emphasizing mutual support by staff for each other’s success; use of new technologies supporting innovation and creativity; commitment-based communications and interactions; suppliers and business partnerships; providing customer care service and satisfaction; fostering good working relations, and finally responsibilities to the public (Nitin, et al., 2011).

Creating a culture of excellence among the personnel involve employees that feel empowered, inspired and motivated (Dynamic Achievement Group, 2014). The journey towards culture excellence hinges on corporate culture that is shaped by personnel.

Burg & Mann (2008) insist that a culture of excellence is not a set of rules to follow. Instead, they advise that it is a choice, derived and manifested as a commitment to go beyond the ordinary. It requires recognizing the importance of each individual and a willingness to be innovative. Primarily, a culture of excellence is a never-ending journey that is hinged in the belief that the organisation can do better than the present (Bolboli & Reiche, 2014).

Dahlgaard & Dahlgaard (1999) emphasize that commitment to organizational excellence must be driven by top management. In this regard, they argue that excellence cannot be directed from above rather proposing that it rises from the bottom up. As a
solution, they propose that excellence should not be a domain of senior management alone, but managers must enable employee excellence.

A common finding from various research on culture is the recognition that culture shapes the organization (Drucker, 2012). It is the prerogative of management and people in organisations to shape a desired culture or otherwise risk not liking what evolves uncontrolled (Schein, 2010). A culture of excellence takes a conscious effort to be realized.

In summary, cultivating a culture excellence disposition has been attributed to breeding excellent companies (Peters and Waterman, 1982; Goldsmith and Clutterbruch, 1984; Collins and Porras, 2000).

2.3.4 Comparative of Business Excellence Models

Research has shown that businesses that have obtained awards for quality, mainly related to the EFQM model, obtain better results than those that have no awards or recognition for excellence (Boulter, et al., 2013; Corredor & Goñi, 2010)

Quality models are not a new concept. Several quality awards and excellence models are in place around the world, all designed to raise business performance and profitability (Bou-Llusar et al., 2009; Yang and Hsieh, 2009; McManus, 2008; Keng-Boon, 2009). The first model was established in Japan in 1951, followed by the American’s Malcolm Baldrige National Quality Award (MBNQA) and the European Foundation for Quality Management Excellence Model (EFQM). Both the MBNQA and the EFQM have driven the institution of quality distinctions around the world and served as benchmarks for national quality awards (Alonso-Almeida & Fuentes-Frías, 2012). Table 2.2 below list selected BEM’s of note across the world.

Table 2.2: List of Business Excellence Models (BEM’s).

<table>
<thead>
<tr>
<th>Name of Business Excellence Model</th>
<th>Abbreviation used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malcolm Baldrige National Quality Award- USA (1987)</td>
<td>MBNQA</td>
</tr>
<tr>
<td>Deming Prize - Japan (1951)</td>
<td>DP</td>
</tr>
<tr>
<td>European Foundation for Quality Management (1992)</td>
<td>EFQM</td>
</tr>
<tr>
<td></td>
<td>Award Name</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>4</td>
<td>Japan Quality Award (Khoo et al, 2003)</td>
</tr>
<tr>
<td>5</td>
<td>South African Excellence Award -1997</td>
</tr>
<tr>
<td>6</td>
<td>United Kingdom Quality Award -1994</td>
</tr>
<tr>
<td>7</td>
<td>Singapore Quality Award</td>
</tr>
<tr>
<td>8</td>
<td>Egypt Quality Award (1997)</td>
</tr>
<tr>
<td>9</td>
<td>Kenya Quality Award (1999)</td>
</tr>
<tr>
<td>10</td>
<td>Mauritius Quality Award (2001)</td>
</tr>
</tbody>
</table>

Source: Alonso-Almeida & Fuentes-Frías (2012)

Dale, et al (2007) uphold that the basic premise of all quality models is that excellent results with respect to organisational results, customer satisfaction, people satisfaction and impact on society are achieved through leadership driving policy and strategy, people, partnerships and resources and processes.

2.3.4.1 Business Excellence Models (BEM’s) Concepts and Values

BEM’s are operationalized through the idea of fundamental concepts and values (Pakhale, 2017). These are attributes, beliefs and/or behaviors that excellent organizations exhibit on the journey to achieving excellence. The idea is enshrined in the EFQM and has been adopted by various other BEM across the globe (EFQM Excellence Model, 2013). Figure 2.1 depicts the interlinkage of the concepts illustrating how together they achieve excellence.

![Figure 2.1 Fundamental concepts of excellence.](EFQM (2002))
A comparative analysis by Chen and Jang (2011) on the features and attributes of the two major quality awards i.e. the MBNQA and EFQM are summarised in the table 2.3 below. They are presented in terms of the following aspects: core values and concepts, criteria and scoring system and evaluation dimensions. It can be deduced that the core values and concepts under MBNQA at eleven are marginally more than those of EFQM that are eight. However, the EFQM criteria items at nine are more than those under the MBNQA.

Table 2.3: Summary of MBNQA and EFQM features and attributes.

<table>
<thead>
<tr>
<th>Core values and concepts</th>
<th>MBNQA (1987)</th>
<th>EFQM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Visionary leadership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Customer-driven excellence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Organizational &amp; personal learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Valuing workforce members and partners</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Agility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Focus on the future</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Managing for innovation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Management by fact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Societal responsibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Focus on results &amp; creating value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Systems perspective</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2.4 below contrast the criteria for six Asian countries illustrating similarities and differences adopted per country.

2.3.4.2 Business Excellence Models Criteria

Excellence frameworks are premised on an assessment criterion used to assess an organizational performance (Peters & Waterman, 2004). They vary from country to country although most borrow from the Malcolm Baldridge National Quality criteria. Table 2.4 below contrast the criteria for six Asian countries illustrating similarities and differences adopted per country.
### Table 2.4: Comparative analysis of assessment criteria of Asian Countries.

<table>
<thead>
<tr>
<th>Country</th>
<th>Criteria of several Business Excellence Models in Asia</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEM</td>
<td>Leadership, Social Responsibilities of management</td>
</tr>
<tr>
<td>1</td>
<td>Leadership, Planning</td>
</tr>
<tr>
<td>2</td>
<td>Strategic Planning, Understanding and interaction with</td>
</tr>
<tr>
<td></td>
<td>customers and markets</td>
</tr>
<tr>
<td></td>
<td>Research and Development</td>
</tr>
<tr>
<td>3</td>
<td>Operations Focus, Value Creation Process</td>
</tr>
<tr>
<td></td>
<td>Process Management</td>
</tr>
<tr>
<td></td>
<td>Process, products and services</td>
</tr>
<tr>
<td>4</td>
<td>Customer Focus, Understanding and interaction with</td>
</tr>
<tr>
<td></td>
<td>customers and markets</td>
</tr>
<tr>
<td></td>
<td>Customer and market focus</td>
</tr>
<tr>
<td></td>
<td>Information Management</td>
</tr>
<tr>
<td></td>
<td>Information, People</td>
</tr>
<tr>
<td></td>
<td>Information, Human</td>
</tr>
<tr>
<td>5</td>
<td>Measurement, Analysis and knowledge management</td>
</tr>
<tr>
<td></td>
<td>Individual and organisational ability to improve</td>
</tr>
<tr>
<td></td>
<td>Customer and market focus</td>
</tr>
<tr>
<td></td>
<td>Results</td>
</tr>
<tr>
<td>6</td>
<td>Workforce Focus, People</td>
</tr>
<tr>
<td>7</td>
<td>Results</td>
</tr>
<tr>
<td></td>
<td>Activity Results, People</td>
</tr>
<tr>
<td></td>
<td>Results</td>
</tr>
<tr>
<td></td>
<td>Results</td>
</tr>
<tr>
<td></td>
<td>People Results</td>
</tr>
<tr>
<td></td>
<td>Customer Results, Results</td>
</tr>
<tr>
<td></td>
<td>Society Results, Results</td>
</tr>
<tr>
<td></td>
<td>Key Results</td>
</tr>
</tbody>
</table>

**Source:** Mohammad, et al. (2011)

Ghicajanu, et al (2015) postulates that the difference between these models of business excellence can be reduced to four items. How these criteria are named, how they are grouped into criteria of influence (enablers) or criteria of outcomes (results, how these basic criteria are detailed and analysed in different subcategory and lastly, the importance percentage of the criteria in the evaluation.

In contrast Alonso-Almeida (2011) condenses the African criteria to eight items i.e. Leadership; Strategic planning; Customer and Market orientation; Knowledge measurement, analysis mangement; Staff orientation; Process management; Results and finaaly Resource management.
2.3.4.3 Criticism of Business Excellence Models

There are different opinions as to the value of the excellence models (Suárez, et al., 2017). Not everyone is convinced of the usefulness of BEM school of thought. Doeleman et al (2014) point out that many organisations have used the EFQM model as a reference framework for their development, although success is not ensured. Several scholars (Wilkes & Dale, 1998; Lee et al., 2006) cite implementation challenges faced by practitioners. Complaints have been aired on the often-sophisticated assessment criteria, lack of infrastructure, quality bureaucracy, excessive paperwork, cumbersome procedures, time consuming, and lack of focus (Dahlgaard, et al., 2013).

In questioning the usefulness of BEM, researchers Chen & Jang (2011) argue that the most crucial thing is how BEMs are perceived by the adopters. They attribute perception of BEMs as the guiding factor to behaviors of using the management tool. According to Cheng and Jang (2011), two perspectives exist i.e. prescriptive or descriptive. The prescriptive aspect indicates that the adopters treat BEM as a ‘must’ to achieve business excellence. In contrast, the descriptive aspect indicates that the adopters treat BEM as a ‘reference’ to examine how the business excellence of the enterprise is.

In conclusion, it is worthy to note that national quality award programs, their models and their criteria have several objectives in common (Vokurka, et al., 2001). Each program emphasizes continuous analysis and improvement and focuses on organizational quality management. Deming Prize is the exception with its emphasis of companywide quality control for product manufacturers (Taddese & Osada, 2010). Overall, as noted by Pakhale (2017), BEM establish customer driven quality through efficient processes, product design, leadership, human resource development and customer focused strategic plans.
2.3.5 Table 2.5: Conceptual Framework of Culture Excellence

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Intermediate Variable</th>
<th>Dependent Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>National culture</td>
<td>Identifying convergence</td>
<td></td>
</tr>
<tr>
<td>Organisational Culture</td>
<td>Right cultural orientation</td>
<td></td>
</tr>
<tr>
<td>Dimensions of Culture Excellence</td>
<td>Effective implementation of cultural best practices</td>
<td>Improved Organisational Performance</td>
</tr>
<tr>
<td>Business Excellence Models</td>
<td>Adoption of Business Excellence Models</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Research Data

2.4 Change Management Strategies

The discourse on restructuring of SOE through adoption of BEM’s cannot be complete without a consideration for effective change management. Burnes (2004) credits the pioneering work on change management to Lewin (1947; 1951) with his works on the Three-Step model of change, Field Theory, Group Dynamics and Action research. Some theorists though argue that with regards the three-step-model, Lewin never developed such a model and it took form after his death (Cummings, et al., 2016). Proponents of Lewin (Robbins and Judge, 2009; Sonenshein, 2010) maintain that his three-step model is the fundamental approach to managing change.

The subject of change management stretches back from the 1960 with emphasis in grief studies capturing the full range of human emotions as employees mourned job-related transitions (Welbourne, 2014). The theory developed placing people at the core of change thinking (Everett, 2003) positing that change must be understood in the context of time, communication channels, and its impact on all affected participants. The 2010’s has seen theory favoring lean and agile approach to change management (Anderson, 2013; Little, 2014) as a response to continuing reports of the failure of large-scale top-down plan-driven change programmes (McKinsey and Associates, 2014)

Change processes are driven by several strategic aims chief being the need to improve business performance (Balogun and Hailey, 2008). It is this narrative that justifies relevance of change management in the research.
2.4.1 Forces of Change Management

Burnes (1996), Kanter (1989) and Peters and Waterman (1982) argue that many modern organisations, including those in the public sector, now find themselves in a volatile environment whereby the need to introduce and manage change successfully has become a competitive necessity. Fok-Yew, Ahmad & Baharin (2013) weigh in the debate asserting that continuous change through re-invention is now mandatory as the rapidly changing landscape in the globalized market has put new demands on organizations.

2.4.1.1 Force Field Analysis

Lewin (1951) suggests a force field analysis when trying to implement and manage planned change. Figure 2.2 shows a force field analysis of a decision to adopt business excellence within an organisation. The model contends that an organisation's behavior is the product of two opposing forces; one force pushes toward preserving the status quo, and another force pushes for change. Nelson & Quick (2013) observes that when the two opposing forces are approximately equal, current condition is maintained and no change occurs. For change to occur, the forces maintaining status quo must be overcome. This can be accomplished by increasing the forces for change, by weakening the forces for status quo, or by a combination of these actions (Sims, 2002).

Figure 2.2: Force Field Analysis of the decision to adopt a business excellence model

Source: Researchers own modification from Nelson & Quick (2013)
Change occurs at various levels i.e. change at the individual (Erkal & Kebapci, 2009), group (Lewin, 1947) and at organisational levels (Morgan, 1986).

### 2.4.1.2 Individual level change

Cameron & Green (2015) summarises four issues that stand out with respect to four perspectives relating to individual change; Behavioural approach as researched by Ajzen (1985) require change agents to get the reward strategies right (Morris et-al, 2012); Cognitive approach calls for an effective link between goals to motivation (Beck, 1970; Ellis, 1977); Psychodynamic approach values treatment of people as individuals and understanding of their emotional states as well as change agent’s own (Kubbler-Ross, 1969; Satir et al., 1991) and finally Humanistic approach that has been shaped by works of Maslow’s hierarchy of needs (1970), Roger’s paths for personal growth (1967) and Perls’ Gestalt Approach (1976) calls for the change agent to be authentic and believe that people want to grow and develop (Erkal & Kebapci, 2009).

### 2.4.1.3 Group level change

Lewin’s (1947) research on group dynamics concluded that effective change is likely to occur where there is involvement of group members in the discussion of issues affecting them. He goes on to recommend that provision to make own decision as a group is central for that change to occur.

The understanding of team development according to Tuckman (1965) necessitates the stage that transfers individual identity to the team identity which can be constructed under the light of common objectives. Tuckman proposed that team development goes through the following sequential steps i.e. forming, storming, norming and concludes on performing. However, it is worthy to note that other scholars have proposed non-sequential team development (Gersick, 1988; McGrath, 1991) where focus has been on describing the factors that trigger shifts in team development.

### 2.4.1.4 Organisations and Subsystems

Organizations are the places where change has a substantial impact (Benn, et al., 2014).
Understanding of change at organisational level is enhanced through viewing the organisation in the lens of Morgan’s, (1986) metaphors. Metaphors help in clarifying the complex change drivers and process (Morgan, 1986). They open a new way for determining appropriate change programs (Benn, et al., 2014).

Morgan’s organisational metaphors including the following eight categories;
Organization as a *machine*; Organization as a biological *organism*; Organization as a central *brain*; Organization as a *culture*; Organization as a *political system*; Organization as a *physical prison*; Organization as *flux and transformation*; Organization as an *instrument*. For the purposes of this research, emphasis is put on the metaphor Organization as *flux and transformation*.

2.4.1.4.1 Organizations as flux and transformation

This paradigm allows for interrogation of change under complexity, chaos and paradox (Cameron & Green, 2015). The organization is perceived as part of the environment, rather than as separate from it. This is in contrast with the metaphor organisation as an organism where the organization is seen as distinct adaptive unit, at the mercy of its environment (Morgan, 2016). Thus, the organisation is seen to have capacity to self-organize, change and self-renew in line with a desire to have a certain identity (By, et al., 2014). The metaphor posits that change cannot be managed rather it emerges (Örtenblad, et al., 2016). More so, tensions and conflicts are viewed as important feature of emerging change and lastly managers are expected to act as enablers allowing people to exchange views and focus on significant differences (Morgan, 2006).

Critiques of the metaphor (McCourt, 1997) alludes to its unsettling nature to both managers and consultants as one cannot conjecture a plan of action from it as is possible under the other seven metaphors that allow prediction. Order emerges as you go along and can only be made sense of after the event. This can lead to a sense of powerlessness that is disconcerting, but probably realistic (Cameron & Green, 2015)

2.4.2 Change Pathways

Research has shown the odds of successfully implementing a large organizational change initiative is between 25% to 35% (Smith, 2002). The worrying statistics mean
that the choice on how the change is delivered deserve due consideration to ensure success of the change initiative.

There exist three basic types of organizational change that call for different handling. These are incremental change (Ackerman, 1986), transitional change (Jick, 1993), and transformational change (Kotter, 1995). For the purposes of this study, focus is on transformational change pathway.

2.4.2.1 Transformational/ Emergent change

Transformational change remains a rare phenomenon in most organisations (D’Ortenzio, 2012). These types of changes are dramatic and fundamentally alter the organization (Anderson & Anderson, 2010). It is the kind of changes brought about when businesses pursue entirely different products or markets, experience radical changes in technology, or new leadership ushers in overhauls to the structure and company culture (Marshak, 1993).

Different organizational theorists have defined the concept of transformational change as generative learning (Senge, 1990), large scale system change (Mohrman, et al., 1989) or reorientation (Tushman & Romanelli, 1985).

O’Brien (2011) proposes that building transformative capacity requires a combination of technological innovations, institutional reforms, behaviour shifts and cultural changes among relevant stakeholders. Being this change is the most pronounced, a substantial disruption to the business will occur, and navigating it will require significant skill and expertise on the part of the management team both in the private and public sector (Weerakkody, et al., 2011).

However, critiques Johansson and Heide (2008) argue that the introduction of radical changes to an organization are one of the major reasons that affect negatively the success of any organisational changes. Rather, Hartley and Bruckham (2002), support the need for gradual change.
2.4.2.1.1 Transformation process
Transformation may be directly driven by dissatisfaction with the status quo (Revi, et al., 2014) and thus may provoke strong reaction from those invested in the current system who perceive that they have a lot to lose. For leading transformation, Deming (1993) propositions the system of profound knowledge (SoPK) as new lens. The model includes four interconnected spheres of knowledge i.e. appreciation for a system, knowledge about variation, theory of knowledge, and theory of psychology. Deming (1993) view the four as producing system optimization. It is through the lens of the system of profound knowledge that people can work on transformation; new thinking, new learning and new creating in the organization. The transformation process is summarised by figure 2.3 below.

![Figure 2.3: System of Profound Knowledge representation.](source: Deming (1993))

Deming concluded his arguments by warning that transformation fails when there is a lack of leadership with profound knowledge, vision and courage (Deming, 2005).

2.4.3 Management of Resistance to Change
Organisations change and adapt continuously to remain competitive (Balogun & H, 2008), and yet effective organisational change seems to be rare (By, 2005; Meaney & Pung, 2008). Statistics reveal that only one-third of organisational change efforts are considered successful by their leaders (Meaney & Pung, 2008). The low success rates of change programs are often attributed to resistance to change on the part of employees (Ford, et al., 2008)
Participants in Prosci’s 2013 Benchmarking study cited that much of the resistance they encountered could have been avoided if they applied solid change management practices and principles. The report concluded that if change management is done right the first time, it can prevent much of the resistance from ever occurring (Prosci, 2014).

Resistance to change has attracted significant interest by researchers in change management literature (Cummings & Worley, 2005; Senior & Swailes, 2010)

2.4.3.1 Methods of managing resistance

Several solutions have been proffered to manage resistance by various scholars (CUBEC, 2010). The table below summarises some of the strategies according to Kotter and Schlesinger (1979)

Table 2.6: Methods for Addressing Resistance

<table>
<thead>
<tr>
<th>Method</th>
<th>How to Use</th>
<th>When to Use</th>
<th>Advantages</th>
<th>Drawbacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Communicate the desired changes and reasons for them</td>
<td>Employees lack information about the change's implications</td>
<td>Once persuaded people often help implement the change</td>
<td>Time consuming if lots of people are involved</td>
</tr>
<tr>
<td>Participation</td>
<td>Involve potential resisters in designing and implementing the change</td>
<td>Change initiators lack sufficient information to design the change</td>
<td>People feel more committed to making the change happen</td>
<td>Time consuming, and employees may design inappropriate change</td>
</tr>
<tr>
<td>Facilitation</td>
<td>Provide skills training and emotional support</td>
<td>People are resisting because they fear they can't make the needed adjustments</td>
<td>It’s a relatively easy way to defuse major resistance</td>
<td>Can be time consuming and expensive; can still fail</td>
</tr>
<tr>
<td>Negotiation</td>
<td>Offer incentives for making the change</td>
<td>People will lose out in the change and have considerable power to resist</td>
<td>It’s a relatively easy way to defuse major resistance</td>
<td>Can be expensive and open managers to the possibility of blackmail</td>
</tr>
<tr>
<td>Coercion</td>
<td>Threaten loss of jobs or promotion opportunities; fire or transfer those who can't or won't change</td>
<td>Speed is essential and change initiators possess considerable power</td>
<td>It works quickly and can overcome any kind of resistance</td>
<td>Can spark intense resentment towards change initiators</td>
</tr>
</tbody>
</table>

Source: Kotter & Schlesinger (1979)

2.4.4 Communicating Change

Change agents that communicate change effectively can improve their performance by as much as 29.2% (Corporate Leadership Council, 2009). On the other hand, failure to communicate change risks invoking feelings of hostility that leads to resistance to change (Kamarudin, et al., 2014). This realisation then justifies supplying people
affected by change with quality information that is needed by the staff. If not, the information will be viewed as irrelevant and thus will be construed to be of poor quality.

Self, et al (2007) identify that is imperative that feedbacks to change communications be allowed to ensure that needs and concerns of those affected are addressed. Wilson, (2009) advocate for the creation of enough time to allow for the process of feedbacks and adequate responses to take place. Failure in communication trigger a series of unfortunate consequences to the change process; it starts with fermenting of wrong assumptions that lead to rumours and cynicism (Brown & Cregan, 2008). This leads to uncertainty. Uncertainties lead to emotional stress and resistance (Starr, 2011)

2.4.5 Models of Change
A variety of models for change exist stretching from the Three step model (Lewin, 1947), Force field theory (Lewin, 1951), Eight step model (Kotter, 1995) and Systemic view on organisational change (Senge, et al., 1999). The common thread is that they all demonstrate a planned approach to change. For the purposes of this research, focus has been made on analysing change model suited to volatile, uncertain, complex and ambiguous environment which NRZ is facing.

2.4.5.1 Emerging theories on change models under uncertainty - Leading complex change with post-conventional consciousness
Brown (2012) research on leading complex change concluded that the leader’s design change initiatives from a deep inner foundation, including grounding their work in transpersonal meaning. Secondly, they access non-rational ways of knowing, and use systems, complexity, and integral theories to understand and navigate complexities and adaptively manage through dialogue.

The study suggested the following fifteen leadership competencies necessary to successfully manage change in a complex environment besieging business today. Ability to deeply connect; Intuitive decision-making and harvesting; Embrace uncertainty with profound trust; Know oneself by scanning and engaging the internal environment; Inhabit multiple perspectives; Adaptively manage through cultivating dialogue with the system (Snowden & Boone, 2007); Go with the energy; Cultivate
transformation beginning with self-transformation; Create developmental conditions; Hold space (Fritz, 1999); Shadow mentoring (Wilber, et al., 2008) Navigate with sophisticated theories and frameworks particularly Systems theory (Bertalanffy, 1968) and systems thinking, Complexity theory and complexity thinking (Uhl-Bien & Marion, 2008), Integral theory and integral reflection (Edwards, 2009), and Polarity management (Johnson, 1993).

2.4.6 Table 2.7: Conceptual Framework for Change Management Strategies

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Intermediate variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change models</td>
<td>Adoption of appropriate change model</td>
<td>Improved Organisational Performance</td>
</tr>
<tr>
<td>Change Initiative</td>
<td>Trigger of a desire to change</td>
<td></td>
</tr>
<tr>
<td>Transformational Change Pathway</td>
<td>Embracement of transformational perspective on change</td>
<td></td>
</tr>
<tr>
<td>Change Communication</td>
<td>Selection of appropriate communication models</td>
<td></td>
</tr>
<tr>
<td>Change resistance management tools</td>
<td>Implementation of</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Research Data

2.5 Macro- Techniques of quality management

Over the years, scientific research has proposed several business techniques that are famed for improving efficiency and effectiveness of business processes. Discussed in this section are five such macro-techniques that include benchmarking, business-process reengineering, ISO 9001-2008, Total Quality Management (TQM) and Results based Management (RBM) system.

2.5.1 Benchmarking

McNair & Leibfried (1992) offer some background to the origins of benchmarking by suggesting that it began in the late 1970s by Xerox Corporation. Xerox was under immense pressure from competitors and quickly losing market share. To regain competitiveness, it was mooted to compare its operations to those of its competitors.
After finding quality standards with which to compare itself, Xerox began one of the greatest trends in the business world today (McNair & Leibfried, 1992). The success of the exercise was unprecedented culminating in the new company Rank-Xerox Ltd winning the MBNQA in the United States and later the European Quality Award in 1992 with the use of their leadership through quality benchmarking methodology (Zairi, 2010).

Benchmarking is the practice of being humble enough to admit that someone else is better at something and wise enough to try and learn how to match and even surpass them at it (APQC, 2018). It is a systematic comparison of approaches with other relevant organisations that gains insights that will help the organisation to act to improve its performance (EFQM Excellence Model, 2013)


The model has its own flaws, ranging from being expensive (Epper, 1999) to being a possible hindrance to innovation (Hammer & Champy, 1993). Furthermore, for the benchmarking study to be effective, the scope must be narrow (Epper, 1999).

2.5.2 Business Process Re-engineering
Mohapatra (2012) gives an account of the 1970s American automobile industry that was characterized by rising competition from Japanese car makers, Toyota and Nissan. For Ford and Chrysler, the danger of being displaced as the market leader from their own home turf led to a severe introspection which resulted in many management paradigms like Six Sigma, TQM, and Performance Improvement Plans. The draw back was these strategies were incremental rather than being revolutionary. As competition intensified around the 1990’s, a radical strategy was mooted (Hammer, 1990) that assumed a dissatisfaction with the current process and considered it irrelevant. Such a clean slate perspective enabled the designers of business processes to disassociate
themselves from current processes, rather focusing them on a new process. The strategy came to be known as business process reengineering (BPR).

BPR has been attributed to making processes more competitive by improving quality, reducing costs, and shortening the product development cycle (Bahramnejad, et al., 2015; Guimaraes & Bond, 1996).

Two methods of business process reengineering exist i.e. Hammer and Champy Methodology and the Davenport methodology.

2.5.2.1 Hammer and Champy methodology

Hammer and Champy's methodology for BPR consists of six steps; Introduction into business reengineering; Identification of business processes; Selection of business processes: Understanding the selected business processes; Redesign of the selected business processes; Implementation of redesigned business processes (Hammer, 1990; Mohapatra, 2013)

Hammer and Champy (1993) consider poor management and unclear objectives as the main problems to BPR success, but initially they failed to consider the human factor. Only recently they acknowledge people’s resistance as a major obstacle to a successful BPR undertaking (Hammer & Champy, 1993).

2.5.2.2 Davenport methodology

Involves visioning and goal setting, identification of business processes, understanding and measuring, use of information technology, process prototype and emphasis on implementation (Davenport, 1993; Mohapatra, 2013).

Davenport and Short (1990) position Information Technology (IT) at the heart of BPR a finding supported by Bahramnejad, et al., (2015). They perceive its relationship to BPR as one of mutual interdependency where IT is the base for redesigning and even evaluating the processes (Du, et al., 2010; Tehraninasr & Darani, 2009). Despite their emphasis on innovation and technology, they recognise the importance of organisation and human resource issues as to change management, and suggest the use of traditional
management approaches like planning, directing decision making and communicating (Davenport & Short, 1990)

BPR increases enterprise's chance to survive in competition among organizations, but failure rate among reengineering efforts is high (Bahramnejad, et al., 2015)

2.5.3 ISO 9001-2008
ISO 9001:2008 is the standard that provides a set of standardized requirements (Stamatis, 1995) for a quality management system, regardless of what the user organization does, its size, or whether it is in the private, or public sector. Martínez-Costa, et al (2008) hypothesize that use of the standard leads to controlled processes. The argument is based on the attribute of the standard of offering a tried and tested framework for taking a systematic approach to managing the organization’s processes. The envisioned result being the ability to consistently offer quality products that satisfies customers’ expectations (Martínez-Costa, et al., 2008)

The conceptual argument behind the standard is that by implementing the practices prescribed in ISO 9001 quality management system requirements standard, an organization moves up in the quality maturity ladder.

2.5.4 Total Quality Management/ Kaizen/Lean
The exact origin of the term "total quality management" is uncertain. Some insight by Martínez-Lorente, et al (1998) suggest that the term was orignated by Feigenbaum (1956) and further inspired by Ishikawa (1985). Ishikawa (1985) argued that quality management extends beyond the product and encompasses after-sales service, the quality of management, the quality of individuals and the firm itself. He claimed that the success of a firm is highly dependent on treating quality improvement as a never-ending quest.

Quality guru Deming (1986) contributes to the debate of TQM with his idea for the creation of an organizational system that fosters cooperation and learning. This facilitates the implementation of process management practices, which, in turn, leads to continuous improvement of processes, products, and services as well as improved
employee fulfillment. Deming argued that these are the attributes that are critical to
customer satisfaction, and ultimately, to firm survival.

TQM emphasises the responsibilities of top management to take the lead in changing
processes and systems (Deming, 1986) stressing that top management should
participate exhibiting commitment, empower subordinates and design effective
recognition and rewards schemes (Juran & Gryna, 1993).

The issue of team and project work is captured in TQM through the concept of Quality
Control circles and self-managing teams (Hutchins, 1985; Juran & Gryna, 1993), which
can promote quality improvement, improve communication between management and
employee’s coordination, and improve coordination between employees (Hindle,
2008).

Many authors have reported benefits for companies pursuing the principles involved in
TQM (Keng-Boon, 2009). Consequently, quality and excellence awards are a good way
of introducing and developing the TQM philosophy in organisations to make them more
competitive (Alonso-Almeida & Fuentes-Frias, 2010).

**2.5.5 Results Based Management**

Gasser (2016) theorise that origins of Results-based management (RBM) can be traced
back to over five decades ago. Dissatisfaction was rife in national governments over
the then method of measuring social welfare programs by money spent. New Public
Management convention pushed for the measuring the results instead (Gasser, 2016).

Wauters (2013) defines RBM as a method of ensuring quality management for central
government and its departments, donor funded entities and entities with no direct
apparent competition. Mayne (2007) suggests that RBM’s focus is measurement of
results and comments that knowing how to measure the success of a result should be
the starting point of any planning process.

RBM in practice has been at the United Nations (UN) where it was adopted in the late
1990s, to improve the effectiveness and accountability of UN agencies (Aly, 2015). The
UN define RBM as a broad management approach whose core focus is achieving results. The definition has similarities with the Organization for Economic Cooperation and Development (OECD) where RBM is defined as a management strategy focusing on performance and achievement of outputs, outcomes and impacts (OECD, 2010).

Mayne (2017) defines RBM as a quality management strategy by which processes, outputs and services contribute to the achievement of clearly stated expected activities and objectives. It is focused on achieving results, improving performance, integrating lessons learned into management decisions and monitoring and reporting on performance (Mayne, 2017).

In criticizing RBM, Karmack (2007) argues that RBM assumes unequivocal and shared definitions of “results” and performance which can be formulated into a hierarchy of quantitative indicators. This is not appropriate in many areas of the public sector as goals that are too narrow promote risk-averse behaviour and dis-incentivise the kinds of collaboration and relationship-building required to achieve them (Hummelbrunner & Jones, 2013).

2.5.6 Table 2.8: Conceptual framework for macro-techniques

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Intermediate</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benchmarking</td>
<td>Adoption of relevant benchmarking practices</td>
<td>Improved Organisational Performance</td>
</tr>
<tr>
<td>Business Process Reengineering (BPR)</td>
<td>Application of BPR techniques</td>
<td></td>
</tr>
<tr>
<td>ISO2001-2008</td>
<td>Certification in quality standard 2001 series</td>
<td></td>
</tr>
<tr>
<td>Total Quality Management</td>
<td>Implementation of TQM philosophy</td>
<td></td>
</tr>
<tr>
<td>Results Based Management</td>
<td>Harnessing RBM concepts in assessment of performance</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Research Data

2.6 Restructuring Strategies for State Owned Enterprises

“Network Rail to be broken up or sold off under restructuring” screamed the headline of a United Kingdom newspaper (Telegraph, 2015). Apparently, the county’s national rail carrier, the Network Rail, was reported to be saddling the fiscus with its £33billion
debt. The United Nations (2003) notes that many countries have introduced reforms designed to improve the operational and financial performance of national railways. The objective has been to create better managed, more commercially-responsive and market-led railways. The reforms have involved the creation of new organizations; revised accounting methods; liberalization through the introduction of competition; privatization, de-monopolization and regulatory reforms.

This section defines the concept, and explains the aims and rationale that underpin the need for railway restructuring. Previous scholars that have researched on reforms of SOE have dwelt on generally what need to be instituted in the SOE to improve fortunes (Dewenter and Malatesta, 2001; Aivazian, Ge and Qiu, 2005). Focus areas have been on the challenges of Political and Agency Costs that Public Enterprises suffer from (Xu et al (2005); the need for corporatization of Public Enterprises (Aivazian, Ge and Qiu,2005) and the call for Privatization of Public Enterprises (Omran, 2004; Smith and Trebilcock (2001). In the Zimbabwean context (Chavunduka, et al., 2014) the research efforts have been on the link between reform efforts and organizational culture on performance and long-term effectiveness of organizations.

2.6.1 Liberalization, deregulation, commercialization and privatization

Group for Legal and Political Studies (2012) kindles the debate on restructuring public enterprises by drawing arguments of academics (Gayle & Goodrich, 1990) and policy makers that assert that the privatization of publicly-governed assets is critically important for transition economies.

Kalejaiye, et al (2013) defines deregulation and privatization by separating them from what they are not. They note that the concepts are often used in relation to commercialization. Commercialization (Ojo, 2011; Zayyad 2007) entails that the public enterprise should operate as a for-profit organisation, mobilise own funds internally and is required to efficiently function without any subsidy from the government. In contrast deregulation and privatization sharply differ from this.

Deregulation can be described as an economic reform (Gass, 2013), a fiscal and monetary policy measures in which laws or rules of entry and exit into a market are
weakened, relaxed or totally removed in order to enhance the competitiveness of economic (Adegbemile, 2007). It is the simplification or dismantling of the legal and governmental restrictions in the operation of market forces, especially in relation to price-fixing (Pettus, et al., 2009; Ojo, 2011).

Bailey & Baumol (1983) caution that the enforced introduction of competition arising from deregulation must not be accompanied by artificial prices for incumbents or entrants otherwise, more harm than benefit may flow from it.

2.6.1.1 Division and privatisation of Japan National Railways (JNR)

JNR maintained profitability from 1957 until 1964 when losses began to be recorded (Okano, 1994). From 1964 the company ran an accumulated loss and debts at an increasing rate.

In 1982, the Second Ad Hoc Commission on Administrative Reform, an advisory body to the Prime Minister, advised the government to liquidate JNR's accumulated debt and restructure and privatise JNR (Hosoya, 1994). Two methods of separating JNR were examined: splitting it into a passenger transport company and a freight transport company or dividing it into several local railway companies (Konno, 1997). To avert and appease powerful labour unions the government asked central and local governmental agencies and large companies to absorb JNR employees who would lose their jobs. Employees that refused to move to other companies were transferred to the JNR Settlement Corporation, a liquidation company set up to take over the JNR long-term debt and assets needed for railway operations. The move was big success with the number of JNR employees dropping from more than 400,000 in 1980 to 191,000 in 1994 (Mizutani & Nakamura, 1996).

A reorganisation plan was agreed to divide JNR into six regional companies by splitting into six districts based on the strength of scientific detailed research on trips made using JNR's railroad network (Kopicki, et al., 1995).

In April 1987, JNR made a fresh start as six JR passenger railways and one freight railway (The Economist, 2014) under a new mother company Japanese Rail. Okano, (1994) acknowledge that JR's subsequent business results have been much better than
expected. Annual average growth of transport volume by JR increased sharply from 0.6% during the 5 years before privatisation from 1982 to 1986 to 4.5% during the 5 years after the privatisation from 1987 to 1991.

The success story of JNR restructuring cannot be all attributed to privatisation. Terada (2001) points out that in parallel with the privatisation of JNR, some measures were taken to reconstruct the management of the railway company. These measures include abandonment of unprofitable local lines, release of JNR from its enormous long-term debt, and reduction of excess labour by 80,000 in just one calendar year.

Lessons continue to be drawn from the success of JNR restructuring (Kurosaki, 2017) chief being that single railway company, JR in the case of Japan, should manage railway operations as a whole even if the public sector retains ownership of the infrastructure.

2.6.2 Recapitalisation and Retooling Strategy
Divestopedia (2018) defines recapitalisation as a financial strategy adopted to positively alter an organisation's financial structure to weather through a rough financial situation or to help improve the company's financial stability. Researchers (Mufuya & Chirimubwe, 2017) advised that NRZ should introduce massive infrastructure development programs such as, Built Own Operate Transfer (BOOT) programs to enhance independent investors to recapitalise and develop the rail equipment. Table 2.8 below summarise recapitalisation initiatives that have been adopted by a select national railway entities across the globe;
Table 2.9: Recapitalization methods.

<table>
<thead>
<tr>
<th>METHOD</th>
<th>DESCRIPTION</th>
<th>APPLICABLE CONTEXT</th>
<th>CASE STUDY EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create capital structure de facto</td>
<td>Create a balance sheet for the enterprise by assigning from the general fund of the government debt repayment obligations</td>
<td>No separate enterprise balance sheet exists • Need exists to harden budget constraints and foster financial self-sufficiency • First step in converting line ministry into a self financing corporation</td>
<td>New Zealand Railways (first phase) The Railways Department was converted from a government structure into a statutory corporation with clear commercial objectives. The government served as a guarantor of the company’s obligations but was removed from the day-to-day railway operations.</td>
</tr>
<tr>
<td>Convert debt into equity</td>
<td>Convert a portion of outstanding debt into equity and correspondingly reassign debt repayment obligations from enterprise to government</td>
<td>Separate balance sheet already exists • Debt service relief required by enterprise • No near term external financing needed for major capital investment • Net government debt burden remains constant • Valuation basis created for sale of enterprise as a going concern</td>
<td>New Zealand Railways The government took on NZ$1.1 billion of NZR Corporation’s debt and the balance sheet was restructured. The Railways Corporation was divided into two separate entities: the Crown-owned NZRL which operated the railways’ core services, and NZRC which retained the surplus assets to be sold off. Steps were then taken to separate the assets and liabilities of the old corporation.</td>
</tr>
<tr>
<td>Provide equity capital infusion</td>
<td>Provide incremental government funds in the form of a direct equity contribution to the enterprise</td>
<td>Separate balance sheet already exists • Debt burden exceeds free cash flow • External financing requirements exist • Government funding for enterprise must increase</td>
<td>Canadian Railways The federal government provided, under subsequent Capital Revision Acts, periodic recapitalization of CN, including $1.8 billion in 1937, $1.5 billion in 1952, and $808 million in 1978.</td>
</tr>
<tr>
<td>Stretch out debt repayment</td>
<td>Redefine debt repayment schedule while maintaining principal; reduce current payment obligations from the enterprise to government and push out future payments</td>
<td>Short-term debt obligations exceed free cash flow • Longer-term prospects are positive • Net government claim against railway remains constant</td>
<td>Swedish Railways The capitalized value of the existing infrastructure was conveyed to BV from SJ’s balance sheet, and a corresponding reduction of SKr 2.3 billion in outstanding debt was made on SJ’s books. The railway was instructed to sell off some of its subsidiaries and focus on its core business.</td>
</tr>
<tr>
<td>Forgive or reassign debt</td>
<td>Remove debt obligations from the enterprise’s balance sheet, either by reassigning debt to a settlement corporation or by government absorbing or forgiving debt</td>
<td>Short-term debt payments exceed free cash flow • Longer-term prospects are unclear or negative • Net government claim against railway declines and additional budget is actually required on government side</td>
<td>Japan National Railway JNR Settlement Corporation (JNRSC) was created to repay the long-term debt held by JNR through the sales of surplus assets of the shares of the seven newly created JRs (six regionally based passenger companies and a freight-handling company). JNRSC inherited $232 billion out of a total of $337 billion of JNR’s liabilities.</td>
</tr>
</tbody>
</table>

Source: Kopicki, et al. (1995)

The current Zimbabwe situation involves recapitalisation of NRZ by private partners i.e. South African logistics group Transnet and Diaspora Infrastructure Development Group in a projected 1.7 billion dollar deal (Newday, 2018). Under the deal, Transnet role in the restructuring involves providing funding to retool the NRZ through acquiring and refurbishing wagons, upgrading the company’s information communication technology and signaling systems, and increasing NRZ’s capacity to move goods (Financial Gazette, 2017). It is reported that the government has created a special purpose vehicle to warehouse NRZ’s $348m debt, which would be repaid over time once it has regained financial stability (Businesslive, 2017).
Furthermore a $10million recapitalization joint venture between the European Union and NRZ consummated under the National Sugar Adaptation Strategy rehabilitated 35km of rail along the Nandi-Mkwasine rail track (The Chronicle, 2017).

2.6.3 Management Contract

Diathesopoulos (2010) explain the concept of management contracts as agreements by which an entity assigns its management, partially or entirely, to another entity. The latter will, for a fee, exercise it for the benefit of the first. Macneil (1999) conceptualised that the entity providing management services acquires the role, powers, duties and responsibilities of the board of directors of the recipient. Scope exist for NRZ to assume this model as it allows drafting in of leadership qualities with a wider global experience.

The relationship between the parties is characterised by a strong cooperative element, great interdependence, as the whole relationship is based on a win-win strategy and by a highly customised content and structure (Diathesopoulos, 2010)

2.6.4 Rebranding Strategy

Understanding of the concept of rebranding as a restructuring strategy requires demystifying the term brand itself. De Chernatony (2010) define a brand as a collection of functional and emotional values that deliver a promise of uniqueness and everlasting experience.

When the brand name is no-longer delivering its promise, it is time for change through rebranding. Juntenen et al (2009) in concurring with Muzellec et al (2006) in defining rebranding brings the concept of systematic approach. Common ground is found in that rebranding involves creation of a new image with the intention of developing a differentiated position in the minds of stakeholders and competitors (Juntunen, et al., 2009; Muzellec & Lambkin, 2006). Recent research by Tevi and Otubanjo, (2013) attempts to ground rebranding in theory of evolution and offer a new definition to corporate rebranding as a continuing process whereby an organization responds to the dynamics in its business environment by changing its self-identity in order to survive and thrive.
Corporate rebranding can be caused by either internal or external causes (Goi & Goi, 2011). Internal causes include factors such as changes within the structure of business organizations (Lomax, Mador & Fitzhenry, 2002), the need for a new image (Gambles & Schuster, 2003) and the desire to upgrade a firm’s personality in the minds of consumers and other stakeholders. External factors include issues such as competitiveness, perception of external stakeholders, economic slowdown, shifts in marketplace. (Goi & Goi, 2011)

The ultimate goal of the corporate rebranding phenomenon is to survive and thrive (Tevi & Otubanjo, 2013). They argue that, in the same way organisms adapt to an environment through evolution by natural selection, so is it also that corporate brands adapt to their environment by corporate rebranding. To this end they provide a model for re-branding illustrated by diagram 2.4 below.

Figure 2.4: Model of rebranding grounded on Evolutionary Theory.
Source: Tevi & Otubanjo (2013)

Closely linked to the rebranding strategy is the issue of customer centricity. Customer centric marketing has been defined as understanding and satisfying the needs, wants and resources of individual consumers or customers rather than those of mass markets or market segments (Sheth, et al., 2000). Organisations have placed the product at the start of the planning process, however customer centricity places the customers’ needs and wants at the start. The strategy aims to address low productivity, increasing diversity of the market, and the advent of enabling technologies.
### Table 2.10: Conceptual framework for national railway organisations restructuring strategies

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Intermediate</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privatisation</td>
<td>Adoption of an appropriate mix of strategies</td>
<td>Improved Organisational Performance</td>
</tr>
<tr>
<td>Deregulation tools</td>
<td>Invoking of deregulating practices</td>
<td></td>
</tr>
<tr>
<td>Recapitalisation and Retooling</td>
<td>Mobilisation of capital and enabling machinery</td>
<td></td>
</tr>
<tr>
<td>Management Contract</td>
<td>Design and negotiation of appropriate management contracts</td>
<td></td>
</tr>
<tr>
<td>Rebranding</td>
<td>Designing and implementation of a desired rebranding strategy</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Research Data

### 2.7 Chapter Summary

The chapter has attempted to illustrate the trinity required for a successful implementation of a BEM in an organisation. This has been achieved through extensive discussion of the three broad ingredients forming the trinity i.e. culture i.e. how both national and organisational work together to form a culture of excellence; the role of change management techniques in developing excellence and finally the role of macro-techniques in aiding Business Excellence Model frameworks. The chapter finished with a discussion of restructuring techniques that have been employed on national rail carriers across the world illustrating how Japan managed to improve performance through a combination of privatisation, re-organisations, strategic streamlining of operations and return to commercialization mindset.
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

In recapitulation of the research objectives captured in chapter one which were stated as;

3.1.1 To investigate the impact of culture excellence on organisational performance of SOE,

3.1.2 To assess the effect of change management strategies on organisational performance of SOE’s adopting BEM,

3.1.3 To examine the influence of Macro-Techniques of quality management on organisational performance of SOE’s adopting BEM,

3.1.4 To establish the applicability of Business Excellence Models in the restructuring of State-Owned-Enterprises

3.1.5 To identify turnaround strategies appropriate for SOE’s restructuring under a business excellence framework.

This chapter begins with the research design and progresses through the research philosophies, research approach, research strategies, research methods, time horizon, population and sample characteristics, data collection and data analysis. The chapter concludes with a discussion of the way in which research ethics, reliability, validity and credibility were managed and built into this research. The foregoing was designed as the most appropriate for addressing the formulated research questions.

3.2 Research Design

Singhania & Anchalia (2013) defines research design as the framework or plan for a study used as a guide in collecting and analysing data. For the purposes of this research, the research adopted an explanatory and part descriptive design. The choice was derived from the traditional options available in social science research where the most common research designs used are exploratory, descriptive and causal. Explanatory research is an advanced form of exploratory research that aims at communicating something specific to a given audience, in other words its objective is to tell a story with data. It is typically conducted for a problem which was not well researched before, demands
priorities, generates operational definitions and provides a better researched model. It focuses on explaining the aspects of a study in a detailed manner.

On the other hand, descriptive research is typically more formal and structured than exploratory research (Malhotra, 2007). It is based on large, representative samples and the data obtained are subjected to quantitative analysis. Although in some quarters descriptive research has been dismissed as “mere description”, De Vaus & De Vaus (2001) maintains that good description is fundamental to the research initiative and it has added immensely to researcher’s knowledge of the shape and nature of our society. He further argued that good description provokes the ‘why’ questions of explanatory research.

The explanatory-cum descriptive design was preferred due to its applicability in seeking to explore possible solutions relating to the current malaise afflicting the NRZ as an organisation. It seeks to explore the use of BEM as a tool for achieving sustainable growth for NRZ. The research design draws from the conceptual framework of the research design provided in chapter 1.

The quantitative aspect arises from the survey questionnaire which was used as the main instrument for collecting data. Quantitative testing used statistical application Statistical Package for Social Sciences (SPSS) and specific test such as Cronbach alpha value test, Kaiser-Meyer-Olkin (KMO) test, descriptive statistics, regression analysis, chi-square, ANOVA test and rotational data.

Qualitative test of this research was conducted when the researcher made a review of the literature. Review of literature was seeking to see the independent variables giving rise to dependent variables. However, the same results were triangulated using a quantitative technique through a survey questionnaire that was subjected to an SPSS test as earlier alluded to.

The researcher, in concurrence with Burns & Grove (2010) perceived the research design as a plan for directing a research with maximum control over factors that may interfere with the validity of the findings. The function of the present research’s design
was to provide for the collection of relevant information with minimal expenditure of effort, time and money.

3.3 Research Philosophies and their paradigms

Epistemology, ontology and axiology have been the main research philosophies in natural science, social science, or life-long sciences (Saunders, et al., 2009). Durbin (1988) offers some insight on the role of philosophies in research, stating that the research science linked to the philosophies are concerned with what it means for any science to be scientific and how theories relate to facts in science. Figure 3.1 provides a comprehensive picture regarding the three philosophies and their respective paradigms.

![Diagram](image)

**Figure 3.1: Three Phases of Research Philosophy**

**Source:** Researchers own modification of Anderson *et al* 2016)
3.3.1 Epistemology

Epistemology defines how knowledge can be produced and argued for (Eriksson & Kovalainen, 2016). It answers the questions with regards the definition of knowledge, its sources and limits. Epistemology’s aim in this research was to undertake the research at the right level of knowledge regarding the phenomenon of poor performance at NRZ. Bitsch and Pedersen (2011) poses that epistemology is about the way the researcher imagines knowledge. Two broad paradigms are aligned to epistemology i.e. positivism and interpretivism views (Bryman & Cramer, 2012). Positivist prefer scientific quantitative methods, while Interpretivists prefer humanistic qualitative methods. Both paradigms were relevant to the research as a pragmatic mixed method approach that made use of quantitative analysis on the research questionnaire and qualitative analysis on literature review was taken for this research.

3.3.2 Ontology

Delanty and Strydom (2003, p 6) regard ontology as the philosophy of “being as being”. It focuses on the conception of reality and answers the question on what exists in the world (Eriksson & Kovalainen, 2016). Ontological philosophy in this research centered on two paradigms namely realism and symbolic constructionism. Realism sought to ask if the NRZ can and should be considered as an objective entity that has a reality external to social objects. Symbolic constructionism concerned itself with whether NRZ can and should be considered a social construct built up from the perceptions and action of social actions (Bryman & Cramer, 2012).

3.4 Research Approach

The research employed both a deductive and inductive approaches. Deductive approach originates from the positivism paradigm. It is based on scientific research and involves test of theory, development of a theory and hypothesis (or hypotheses) and designing of a research strategy to test the hypothesis. The approach provided basis for the use of Likert’s 5-point scale statements for quantitative analysis. Furthermore, the deductive approach allowed for generalization of results obtained from the sampled data.

On the other hand, inductive approach originates from interpretivism paradigm, it involves collection of data and developing theory because of data analysis. The
approach enables a cause–effect link to be made between particular variables on the strength of understanding of the way in which humans interpret their social world. The approach is most suited where the research topic is new and on which there is little existing literature. This true as there exist little literature on applicability of business excellence on SOE.

3.5 Research Strategy

Research strategies are many and varied. They range from experiments, survey, ethnography, action research, grounded theory, archival research and case study (Saunders, et al., 2009). However, for the purposes of this research, the researcher used two strategies namely case study and survey method.

The employ of both inductive and deductive approaches warranted that research strategy be case study and survey. Case study, according to Robson (2002), involves empirical investigation to study contemporary phenomenon using multiple sources of evidence. The research strategy adopted was to conduct a case study in a state-owned-enterprises that is undergoing restructuring efforts i.e. the NRZ. Poor performance by the SOE was taken as the phenomena and the study indeed involved use of multiple sources of evidence i.e. archival research, and survey questionnaire. Furthermore, the research required gaining in-depth insight of the research context.

Case study method was chosen due to its advantages in creating novel and profound insights. Furthermore, case study method found relevance due to its focus on examining the rich social and cultural influences of local adaptations of the BEM in the restructuring initiatives in the context of Zimbabwean SOE. Given the interpretive stance adopted in this research and the nature of the research question of understanding how BEM can improve organisational performance, it was believed that the case study approach was the appropriate research strategy for this topic.

Research has shown that in-depth case studies permit a comprehensive approach to the historical and social analysis of complex phenomena (Montealegre & Keil, 2000). The researcher informed by the works of Pettigrew (1985) took the case study approach as useful in developing and refining generalisable concepts. This is despite the lack of a
detailed step-by-step data analysis of case study data noted by researchers Miles and Huberman (1994). Yin (1994) argues that case studies are used for analytical generalisations, where the researcher’s aim is to generalise a particular set of results to some broader theoretical propositions. This suited what the current research aimed to achieve.

3.6 Research methods

Mixed methods, both qualitative and quantitative, are possible, and possibly highly appropriate, within one study (Saunders, et al., 2009). The research method was informed by the need for practicality by not getting boggled in philosophical debates about which is the best approach.

3.6.1 Qualitative vs. quantitative research

Two distinct options were at the disposal of the researcher, i.e. qualitative or quantitative methodology. Decision of the researcher was informed by the research questions which could not be answered by adopting one pure method.

Adoption of an exclusive methodology was deemed not possible due to two reasons i.e. the four questions, are largely exploratory in nature, their purpose is to gain general insight into a topic of business excellence in state-owned-enterprises reformation agenda that is novel in Zimbabwe. On the other hand, the researcher felt that feelings of respondents could be quantitively obtained and analysed using a Likert 5-point scale questionnaire circulated to the case study organisation, the National Railways of Zimbabwe. This realisation convinced the researcher that a pragmatic approach that borrowed from both qualitative and quantitative research methodologies was best suited for this research. In this way the research managed to fulfil the objectives of quantifying applicability of BEM while at the same time improving understanding of the phenomenon by obtaining information from NRZ officials on personal experiences and critical incidents.

To this end, a pragmatic approach was chosen. The researcher desired the liberty to use any of the methods, techniques and procedures characteristically associated with quantitative or qualitative research. The choice was influenced by the recognition that
both qualitative and quantitative approaches have limitations and that the different approaches can be complementary.

Qualitative approach attempts to uncover the deeper meaning and significance of human behaviour and experience, including contradictory beliefs, behaviour and emotions. However, the focus is on gaining a rich and complex understanding of people’s experience and not in obtaining information which can be generalized to other larger groups. Quantitative approach mitigated this shortcoming as through the hypotheses, statistical analysis permitted researcher to discover complex causal relationships and to determine to what extent one variable influenced another.

3.7 **Time Horizon**

The fieldwork was conducted at the NRZ Eastern Region offices in Harare during the period from February to May 2018.

3.8 **Research Population**

Researcher adopted the definition by Burnes and Grove (2010) and took the research population as all elements (individuals, objects and events) that meet the sample criteria for inclusion in a study. The study population consisted of all present and past employees of National Railways of Zimbabwe including policy makers within the Ministry of Transport and Infrastructure Development who have been involved or have witnessed restructuring efforts of NRZ. Employees were broken down to represent executives, line managers, supervisors and officers.

3.8.1 **Sampling strategy**

Researcher’s perception of a sample, in line with Mouton (1996), was that it is elements selected with the intention of finding out something about the total population from which they are taken. The researcher adopted a combination of stratified and random sampling techniques. Stratification was by the designation of the person i.e. Executives, Line managers, supervisors, officers and policy makers. This was done to ensure equal representative at each level in the hierarchy of the NRZ. Within each stratum mentioned, a simple random sampling technique was adopted. Simple random sampling
technique helps to give each potential respondent in the target population an equal chance of inclusion in the sample.

From the total population size of forty (390) employees of NRZ as well as MoTID personnel, seventy-one (71) sample of respondents were taken from the study area. This was derived using the simple formulae by Yamane, (1967) and reviewed in 2012.

**Assumptions**

A 95% confidence level, and \( e = \pm 5\% \)

\[
n = \frac{N}{1 + N (e)^2} = \frac{390}{1 + 390 (0.05)^2} = 197
\]

Where:

- \( n \) = the sample size
- \( N \) = the population size
- \( e \) = the level of precision (Sampling error)

The calculated 197 sample provides a guide of how many respondents should be solicited to achieve 95% confidence level. However, in the interest of practicality taking time and cost into consideration, 71 sample subjects are going to be distributed among the selected NRZ employees and MoTID in their proportion.

Statisticians have shown that a sample size of 30 or more will usually result in a sampling distribution for the mean that is very close to a normal distribution. Stutely (2003) advice of a minimum number of 30 for statistical analyses provided guidance in defining the sampling frame.

The breakdown of the sample per each stratum is presented in table 3.1 below

<table>
<thead>
<tr>
<th>Employee / Policy-maker group</th>
<th>Eastern Region NRZ (N)</th>
<th>MoTID Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executives</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Line Managers</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>Supervisors</td>
<td>95</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>Officers</td>
<td>267</td>
<td>42</td>
</tr>
<tr>
<td>MoTID</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>390</strong></td>
<td><strong>71</strong></td>
</tr>
</tbody>
</table>

Source: Primary Research Data

The researcher’s sample unit was selected as Eastern Region headquartered in Harare. The choice was informed by the convenience it provided on both accessibility and demand for resource i.e. time and financial.

### 3.9 Data Collection methods

The researcher collected data through both secondary and primary sources. Primary data is defined as data collected specifically for the research project being undertaken whereas secondary data is data that were originally collected for some other purposes (Saunders, et al., 2009).

#### 3.9.1 Primary data

As earlier alluded to, the research was premised on a case-study approach and to this end, primary data sources included key informants within National Railways of Zimbabwe and policy makers within the parent ministry i.e. the Ministry of Transport and Infrastructure Development (MoTID).

#### 3.9.1.1 Research Instruments: Likert’s 5-Point Scale Statements

In conducting this research, the researcher was faced with a range of choices in designing the survey questionnaire. Designing of surveys usually involves a choice on the three different models for survey response scales i.e. Dichotomous, Rating scales and Semantic differential scales.

Researcher chose a mixed methods approach that included qualitative and quantitative aspects. Research statements under a Likert’s 5-point scale (see Appendix 2) where used as the main data collection instrument. Likert Scales have the advantage that they do not expect a simple yes / no answer from the respondent, but rather allow for degrees of opinion, and even no opinion at all. Therefore, quantitative data was obtained, and analyzed with relative ease. A 1-5 scale was used as recommended by Balon (2007) with 5 being the positive end and 1 being the negative end as illustrated by table 3.2 below.
Table 3.2: Likert Scale key and respective weights

<table>
<thead>
<tr>
<th>Strongly Disagree (SD)</th>
<th>Disagree (D)</th>
<th>Neutral (N)</th>
<th>Agree (A)</th>
<th>Strongly Agree (SA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 POINT</td>
<td>2 POINTS</td>
<td>3 POINTS</td>
<td>4 POINTS</td>
<td>5 POINTS</td>
</tr>
</tbody>
</table>

Source: Primary Research Data

Justification, as alluded by Johns (2010), of the researchers’ choice is that 1-5 scale strikes a compromise between the conflicting goals of offering enough choice (since only two or three options means measuring only direction rather than also strength of opinion) and making things manageable for respondents (since few people will have a clear idea of the difference between, say, the eighth and ninth point on an eleven-point agree/disagree scale).

The researcher, while being fully cognisant that some people use the midpoint to avoid reporting what they see as less socially acceptable answers, chose an odd numbered scale (1-5) instead of an even numbered scale. An even numbered scale works better on controversial topics where the most accurate gauge of public opinion might be obtained by omitting the neutral category. It is the researchers’ opinion that the research does not border on controversy hence the choice on a 1-5 scale.

The questionnaire had two broad sections: A and B

Section “A” dealt with demographics of the respondents e.g. gender, age, time period of employment and designation in the organisation. Relevance of this section was in ensuring that data was collected from several employees at various levels within NRZ and MoITD working from different departments to avoid obtaining biased data. The respondents were required to tick against the statement which best describes their attitude.

Section “B”, Data Gathering, was divided into four areas in line with the four research objectives i.e.:

1.0 Culture excellence with 10 statements
2.0 Change management strategies with 11 statements
3.0 Macro Techniques of quality management with 10 statements
4.0 Restructuring techniques of state owned railway companies with 10 statements
The section comprised simple statements that were meant to assist in deducing relevant information from the respondents relating to the research objectives.

3.9.2 Secondary data
Secondary data sources mainly covered government publications, technical documents, and annual reports of the NRZ. Valuable insight was also gained from the analysis of research studies conducted by fellow researchers on BEM implementation across the world as well as the United Nations on restructuring of railway companies. Secondary data covered different sources and provided an essential preparation for the research instruments i.e. the Likert-scaled statement questionnaire and interview guide.

3.10 Data Analysis
The collected data was subjected to processing and analysis that involved several closely related operations performed with the purpose of summarizing the collected data and organizing these in a manner that they answered the research questions and objectives. The data processing operations included editing, classification and tabulation.

3.10.1 Qualitative data analysis
As already alluded to under the research design section, qualitative analysis of this research was conducted when the researcher made a review of the literature. Review of literature was seeking to see the independent variables giving rise to dependent variables. This fit is evidenced under literature review where at the end of discussing each construct of business excellence, the researcher formulated the conceptual summary linking independent variables to the dependent variables. However, the same results were triangulated using a quantitative technique through a survey questionnaire that was subjected to an SPSS test as earlier alluded to.

3.10.2 Quantitative data analysis
The quantitative aspect arises from the survey questionnaire which was used as the main instrument for collecting data. Quantitative testing used statistical application Statistical Package for Social Sciences (SPSS) and specific test such as Cronbach alpha value test, KMO test, descriptive statistics, regression analysis, chi-square, ANOVA
test and rotational data. Structural Equation Model was used to infer applicability of BEM from the three constructs of cultural excellence, change strategy and macro-techniques of quality management.

The researcher chose the statistically weighted mean to analyse data collected from the field collected by survey questionnaires. Advantage of the averaging approach rather than the summing approach is that, should respondents have skipped or answered ‘NEUTRAL’ on one or two of the questions, a mean can still be calculated based on those questions that were answered. The response options in the instrument were weighted and coded as shown by table 3.2 above.

3.10.3 Validity and reliability tests
Saunders et al (2009), define validity as the degree to which results obtained from the analysis of the data actually represent the phenomenon under study. It is a measure of how accurately the data obtained represent the variables of the study. On the same note, reliability is presented as a measure of the degree to which a research instrument yields consistent results or data after repeated trials. It is concerned with the degree of consistency with which an instrument measures the attribute it is designed to measure (Polit & Hungler, 2013)

Content validity was ensured by including in the questionnaires a variety of questions on culture excellence, change management, macro-techniques of quality management and restructuring techniques. The preceding chapter on literature review guided the formulation of research statements to ensure that they were representative of what NRZ employees and policy makers should know about business excellence. Consistency in administering the questionnaires, self–administering the questionnaire and formulation of the statements in simple language further enhanced the content validity of the questionnaires.

Cronbach’s Alpha value functionality in SPSS was employed to test the data for reliability or internal consistency. As noted by Tavakol & Dennick (2011), Alpha is an important concept in the evaluation of assessments and questionnaires. The decision criteria for acceptance according to Malhotra (2007) is that the Cronbach’s Alpha
coefficient should be equal or greater than 0.6. Therefore, the reliability of the items in this study was tested to ensure that they were consistently measuring the same constructs using the formulae below.

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N - 1) \cdot \bar{c}}$$

Where:

- $N$ = is the number of items.
- $\bar{c}$ = average covariance between item-pairs.
- $\bar{v}$ = average variance.

Sampling adequacy was tested based on the KMO tests. A value of 0.7 was taken to be adequately representative of the population. Kaiser (1974) describe a KMO above 0.9 as marvelous, in the 0.80s, meritorious, in the 0.70s, middling, in the 0.60s, ordinary, in the 0.50s, miserable, and less than 0.5, unacceptable.

### 3.11 Research ethics

The following measures were taken by the researcher in exercising ethical considerations during the conduct of this research:

- **3.11.1** the researcher sought approval from the management of both the National Railways of Zimbabwe and the Rail Transport Department under the MoTID to carry out this research. More so, subjects’ consent was obtained before they completed the questionnaires,

- **3.11.2** in a letter accompanying the research instrument (**Appendix A**), the rights to respondents’ independence, anonymity, confidentiality and informed consent were clearly spelt out and assured,

- **3.11.3** indeed the research responses have not been used for any other purpose except for academic purposes,

- **3.11.3** as part of scientific honesty, the statistician produced the results independently of the researcher to avoid subjective collaboration. Moreover, dishonest research conduct was shunned e.g. manipulation of design and methods, and retention or manipulation of data.
3.12 Chapter Summary

The chapter gave a detailed description of the research methodology chosen for this research. The researcher outlined the research design, philosophies, approach, strategy, methods and time horizons. A discussion on research population and sampling strategy followed. The chapter rounded up by describing the data collection methods, data analysis as well as research ethics. Table 3.3 below summarises the research methodology chosen for this research.

Table 3.3: Summary of the research methodology

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>METHODOLOGY CHOICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research design</td>
<td>Explanatory cum descriptive</td>
</tr>
<tr>
<td>Epistemological and ontological</td>
<td>Interpretivism and Positivism; Realism and Symbolic constructionism</td>
</tr>
<tr>
<td>Assumptions</td>
<td></td>
</tr>
<tr>
<td>Research Approach</td>
<td>Pragmatic i.e. both Inductive and deductive</td>
</tr>
<tr>
<td>Research Strategy</td>
<td>Case Study and Survey on National Railways of Zimbabwe</td>
</tr>
<tr>
<td>Data Collection</td>
<td>Likert’s 5-point scale statement</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>Statistical Package for Social Sciences (SPSS), Cronbach alpha value test, KMO test, descriptive statistics, regression analysis, chi-square, ANOVA test and rotational data.</td>
</tr>
<tr>
<td>Sampling technique</td>
<td>Stratified random</td>
</tr>
<tr>
<td>Timeline</td>
<td>January to June 08, 2018</td>
</tr>
</tbody>
</table>

Source: Primary Research Data
CHAPTER FOUR: DATA ANALYSIS AND RESEARCH FINDINGS

4.1 Introduction

This chapter is seized with investigating the inherent meaning of the research data obtained from the empirical study. The analysis seeks to answer the research questions highlighted in chapter one.

preceding chapters have laid the foundation for the research. Chapters one and two have provided an account as to the purpose behind the research, outlined the research questions and hypotheses explored and described how the project fits within the overall body of theory related to the subject under consideration. The previous chapter, chapter three, presented the key methodology which was used by the researcher in executing the data collection process. Having collected the data, the researcher coded the instrument and captured it within SPSS. This chapter thus extends the study by presenting an analysis of the research findings. This shall be done with respect to the research objectives. The researcher will first present the general response rate that was acquired. This shall be followed by the presentation of the reliability statistics, then the demographic analysis, and the rest of the findings for each objective as suggested by Leedy and Ormrod (2013). For this analysis, IBM SPSS v25 shall be used. Both descriptive and inferential analyses shall be presented. For the inferential tests, the key research assumptions shall be tested, and all tests will be done at the 95% confidence level, and thus the p-value threshold shall be 0.05 (IBM, 2017). Lastly, the principal arguments emerging from the study will be discussed in line with the literature, with the key arguments forming the core of the next conclusive chapter.

4.2 Response Rate

Saunders, et al. (2009) guides that to achieve generalizability, a high response rate should be achieved. Several researchers provide validity assessment criteria of questionnaires response rate with University of Texas (2008) taking the view that response rates are more important when the study’s purpose is to measure effects or make generalisations to a larger pop
ulation and less important if the purpose is to gain insight. They prescribe that a response rate of between 30 and 40 percent is average for questionnaires completed electronically while Saunders et al (2009) provides that response rate above 41% is satisfactory and Owen and Jones (2009) are comfortable with 50%. Gillham (2000) calls for the questioning of research methodology and obtained results if the response rate is less than 30 percent.

This research was a case study of a single organization, NRZ, and to this respect, to be able to capture the feedback from all the key stakeholders within the organization, stratified random sampling was used (Bryman and Bell, 2015). The strata were based on the designation, and a total of 80 respondents were targeted. These comprised of the executives, line managers, supervisors, officers and policy makers. The subsequent response rate is presented below.

**Table 4.1: Response rate**

<table>
<thead>
<tr>
<th>Group</th>
<th>Administered</th>
<th>Returned</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive</td>
<td>4</td>
<td>4</td>
<td>100.0%</td>
</tr>
<tr>
<td>Line Manager</td>
<td>9</td>
<td>9</td>
<td>100.0%</td>
</tr>
<tr>
<td>Supervisor</td>
<td>10</td>
<td>10</td>
<td>100.0%</td>
</tr>
<tr>
<td>Officer</td>
<td>42</td>
<td>36</td>
<td>85.7%</td>
</tr>
<tr>
<td>Policy Maker</td>
<td>6</td>
<td>4</td>
<td>66.7%</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>63</td>
<td>88.7%</td>
</tr>
</tbody>
</table>

Source: Primary Research Data

From the analysis above, the response rate was highest for the executives, line managers and supervisors, where the response rate was 100%. For the officers, the response rate was 85.7%, while for the policy makers, this was 66.7%. The aggregate response rate was computed as being 88.7%. According to the literature, the optimal minimum threshold for small populations is 60% (Bryman and Bell, 2015). For this research, the aggregate response rate being greater than 60%, we argue that the research’s ultimate sample was enough and ensured the generalizability of the research findings.

### 4.3 Reliability Analysis

Adams et al (2014), stresses the importance of evaluating the reliability of the research instrument. The research constructs were measured based on a Likert’s 5-point scale, with 1 representing Strongly Disagree and 5 representing Strongly Agree. According
to Field (2016), it is highly imperative to make sure that Likert-based research constructs are internally consistent and reliable. This section seeks to test the reliability constructs and to achieve this end, the researcher used the Cronbach’s Alpha statistic (Hair et al., 2010; Pallant, 2010; IBM, 2017). Field (2016) and IBM (2017) peg the minimum threshold of the Cronbach’s alpha statistic at 0.7 if reliability is to be met. In other words, all alpha statistics ought to be greater than 0.7. The summary of the overall alpha statistic is presented below.

**Table 4.2: Reliability Analysis**

<table>
<thead>
<tr>
<th>Case Processing Summary</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valid</td>
<td>51</td>
<td>81.0</td>
</tr>
<tr>
<td>Excluded(^a)</td>
<td>12</td>
<td>19.0</td>
</tr>
<tr>
<td>Total</td>
<td>63</td>
<td>100.0</td>
</tr>
</tbody>
</table>

\(^a\) Listwise deletion based on all variables in the procedure.

**Source: Primary Research Data**

**Table 4.3: Reliability statistics**

<table>
<thead>
<tr>
<th></th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach’s Alpha</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>.781</td>
</tr>
</tbody>
</table>

Based on the findings above, out of the 63 cases, 12 were excluded for the processing of the Cronbach’s alpha, and 37 questionnaire items were used. The resultant Cronbach’s Alpha statistic was 0.781. Being greater than the minimum expected, 0.7, we can argue that the research instrument met the criteria for instrument reliability and internal consistency. It follows that the research instrument used for the collection of data in this research was, therefore, valid and reliable.

4.4 Demographic Analysis

Zikmund et al (2012) credits demographic analysis with unearthing characteristics that can help reveal unknown relationships that may be present in the data and/or help explain the data better. This demographic section presents the demographic factors of the research. This information, according to Leedy and Ormrod (2013) is very important as it can form the basis for the justification of the outcome of the research. This suggest that in every research, it is very essential that such information be collected.
and analysed vis-à-vis the main research questions and ascertain the extent to which they influenced the variation of the responses. In this study, the researcher considered for main aspects, that is, gender, age group, number of years employed by NRZ as well as the department. The respective analyses are presented below. The results, which are descriptive in nature, are indicated by means of frequency tables, bar charts and pie charts.

4.4.1 Gender Distribution

The distribution of the respondent’s gender is presented in table 4.4 below. The highest proportion were males, and these comprised 57.14% of the respondents, while the females comprised 42.86% as shown in Figure 4.1.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>36</td>
<td>57.14</td>
<td>57.1</td>
<td>57.1</td>
</tr>
<tr>
<td>Female</td>
<td>27</td>
<td>42.86</td>
<td>42.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>63</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Primary Research Data*

The foregoing analysis generally confirm the relative dominance of males over females in the public sector. These results are corroborated by ZIMSTAT (2014) who confirmed the respective dominance of males in the employment cycles, not just for the public sector, but as well as the private sector. This disparity is mainly attributed to the patriarchal system that is respected by the Zimbabwean culture at the expense of the females (Gaidzanwa, 2008). To this effect, the study findings might not reflect a gender balanced perspective of issues and be inclined towards male perceptions.
4.4.2 Age Distribution

At a percentage frequency of 42.9%, the dominant age range for the respondents was the 31-40 years age group. The 51-60 years old are in second place at frequency of 28.6% followed closely by the 21-30 years old with a composition frequency of 17.5%. The least frequent category was the 41-50 years age group contributing 11.1% as shown in the Figure 4.2. Based on these findings, it can be argued that the age distribution of NRZ was bi-polar, predominated by the middle aged and aged populations.

Nonetheless, while 38.68% of the respondents were above 40 years, the bulk of the respondents (61.32%) were less than 40 years in age. The structural break in the distribution of age, evidenced by the marginal proportion between 41-50 years could be as a result of the role plurality, with the executives, line managers, supervisors and policy makers being most often than not aged, while the officers would be young-to-middle-aged.
4.4.3 Experience distribution

The more time an individual spends at an organisation the better the quality of their institutional memory. The respondents were asked to establish the number of years that they had been employed. The research sought to obtain how much time the respondents had spent at NRZ to assess the reliability of their responses. Figure 4.3 below illustrate the distribution obtaining.

Figure 4.3: Length of service to the NRZ Distribution
Source: Primary Research Data
From the analysis on Figure 4.3 it can be observed that the structural break between the more experienced and the less experienced is evident. The modal class are people who have been employed for 6-10 years with a frequency percentage of 34.9%. At a frequency of 25.4% comes the veterans of the organisation who have been at NRZ for 21 years or more. This corresponds with 29% of the 51 to 60 years old class that has been loyal to NRZ observed in figure 4.2 above. These statistics suggest that the respondents had the invaluable history of NRZ relevant to the study. This had a cumulative effect on the validity of the results. The 16-20years and 11-15years classes come in last contributing 9.5% and 7.9% respectively. these results correspond to the distribution of the age of respondents which broadly established the existence of the two polars. This was mainly because of the presence of two prime roles, the management (executives, line managers, supervisors and policy makers), who had ample experience along with the non-management, who were the officers, and with less experience.

4.4.4 Departmental distribution

Further analysis along departmental variable revealed that Engineering and Operations had the most respondents at 29.1% and 27.3% respectively. These departments represent the backbone of NRZ operations and it follows that for any initiative to be accepted, it must have buy-in from these departments. Combined influence of these two departments constitute 56.4% of the respondents further strengthening the validity of results. Those in the financial services were 20.0%, while those in the other departments were 16.36%. The least proportion had a proportion of 7.27%, and these were the respondents from corporate services. The distribution of the respondents by department is presented in Figure 4.4. This is to bring a balance to the research such that there is no bias towards a few departments.
4.4.5 Designation Analysis

The study sample included respondents in both the NRZ and the MoTID Department of Railway Management. To this extent, the designation classes, over and above the NRZ internal designations, also included the class of policy makers represent MoTID personnel. The analysis (figure 4.5) shows the officers as the modal class at a commanding 57.1% followed by supervisors at nearly 16%. The managers follow closely at 14.3% with the executives and policy makers jointly making the least frequent class at 6.3%. This reflects the real-world population composition of NRZ operations. Thus, it was prudent to have the majority class being the artisans, technicians, clerks and various shop floor personnel herein collectively referred to as

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**Figure 4.4: Departmental Distribution**

**Source:** Primary Research Data
4.5 Descriptive Analysis Approach to the Key Questionnaire Items

The research instrument asked respondents to rate their responses on a Likert’s 5-point scale to interrogate key questionnaire items that sought to address the research objectives. The response set comprised five possible response variables as depicted by table 4.3 i.e. Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree with corresponding numeric ratings of 1, 2, 3, 4 and 5 respectively.

Research has shown that in the quest of discharging comparisons between the response variables and to facilitate the ease of assessment of the distributions among many variables, measures of central tendency and dispersion tend to be more informative for ordinal variables than mere frequencies (Cooper, 2012; Zikmund, 2013, and Bryman et al, 2007). In line with these findings, the researcher opted to undertake descriptive analysis through the employ of the relative measures of central tendencies and dispersions. For measures of central tendency, the mean rating on the 5-Point Likert scale was employed and the thresholds of the median were calculated as follows;
Upper Mean Threshold (UMT) = 5 (Strongly Agree)
Lower Mean Threshold (LMT) = 1 (Strongly Disagree)

\[ \text{Median Threshold} = \frac{\text{UMT} + \text{LMT}}{2} = \frac{5 + 1}{2} = 3 \]

Values well less than 3 indicated general disagreement, while those greater than 5 indicated general agreement, with those equal or approximating 3 signifying general indifference.

4.5.1 Impact of Culture Excellence on Organisational Performance.

The first research objective sought to establish the impact of culture excellence in achieving organisational performance in State-Owned-Enterprises. The respective summary statistics are presented in Table 4.5.

Table 4.5: Impact of Culture Excellence on Organisational performance

<table>
<thead>
<tr>
<th>Statistic</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Kurtosis</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>A commitment to be excellent by everyone in the company</td>
<td>63</td>
<td>4.57</td>
<td>.837</td>
<td>9.186</td>
<td>.595</td>
</tr>
<tr>
<td>A focus on difficult-to-measure items such as people, quality, and customer service</td>
<td>63</td>
<td>4.06</td>
<td>.840</td>
<td>4.478</td>
<td>.595</td>
</tr>
<tr>
<td>Developing a culture at NRZ that allows for easy questioning of authority for the purposes of improving processes and systems</td>
<td>63</td>
<td>3.98</td>
<td>.833</td>
<td>-.273</td>
<td>.595</td>
</tr>
<tr>
<td>Developing a culture at NRZ that allows for participation in decision making through employee involvement and consultation</td>
<td>63</td>
<td>4.25</td>
<td>.822</td>
<td>6.152</td>
<td>.595</td>
</tr>
<tr>
<td>Promoting knowledge sharing, interpersonal relationships, and good communication structure</td>
<td>63</td>
<td>4.59</td>
<td>.613</td>
<td>3.764</td>
<td>.595</td>
</tr>
<tr>
<td>Establishing a shared strong vision and mission, forming shared policies and strategies and developing people</td>
<td>63</td>
<td>4.29</td>
<td>.888</td>
<td>7.062</td>
<td>.595</td>
</tr>
<tr>
<td>The adoption of business excellence model which follows leading models</td>
<td>63</td>
<td>3.87</td>
<td>.833</td>
<td>.136</td>
<td>.595</td>
</tr>
<tr>
<td>A focus on core business concepts such as leadership and constancy of purpose</td>
<td>63</td>
<td>4.24</td>
<td>.712</td>
<td>2.88</td>
<td>.595</td>
</tr>
<tr>
<td>Adoption of a performance assessment criteria that focuses on leadership performance</td>
<td>63</td>
<td>4.33</td>
<td>.539</td>
<td>7.62</td>
<td>.595</td>
</tr>
</tbody>
</table>
The items were rated on a Likert’s 5-point scale, with 1 representing strongly disagree and 5 strongly agree. From the research findings, it can be established that by virtue of all the items having a mean statistic greater than 3.0, it confirms that there was generally a positive rating by the respondents on the impact of culture excellence on organisational performance of SOE’s. This finding is consistent with the key findings from Pathak (2014) and Williams (2008) who all confirm the significance of organizational culture, and the role it plays towards the successful restructuring of state-owned enterprises and their performance.

From the analysis, it can be noted that the respondents did rate highly the significance of the adoption of an organisational culture that promotes knowledge sharing, interpersonal relationships, employee motivation and good communication structure. This had the highest mean statistic of 4.59, and the least standard deviation of 0.613. On second position is significance of the commitment to be excellent by everyone in the company towards the performance of SOEs, with a mean statistic of 4.57. In both instances, the kurtosis was positive. It follows, therefore that there was general consensus by the respondents with respect to the significance of these two items.

It should also be noted that the respondents agreed that the adoption of a performance assessment criteria that focuses on leadership performance; strategic planning prowess; operations focus; customer focus; information management; workforce focus and resource management can result in NRZ achieving successful restructuring and had a respective mean statistic of 4.33. Establishing a shared strong vision and mission; forming shared policies and strategies and developing people were as well identified, with a mean of 4.29, while developing a culture at NRZ that allows for participation in decision making through employee involvement and consultation had the next highest mean statistic of 4.25, with the focus on core business concepts such as leadership and constancy of purpose; management by processes and facts; customer focus; results.
orientation; continuous learning and innovation having a mean statistic marginally below, that is 4.24. In all these instances, the kurtosis was positive, and thus reflecting a leptokurtic distribution. It is on this basis that the researcher argues that in all the cases identified, the respondents generally agreed.

Only two items were the least rated and these included the development of a culture at NRZ that allows for easy questioning of authority for the purposes of improving processes and systems, and this had a mean of 3.98, and the least was the adoption of a performance assessment criteria that focuses on leadership performance; strategic planning prowess; operations focus; customer focus; information management; workforce focus and resource management and had a mean statistic of 3.87. Despite being the least rated, it should be argued that the mean rating was positive, being greater than 3.0, the cut-off-point and this generally confirmed that culture excellence had an important role towards the performance of state owned enterprises.

With a view to testing the inferential test that the first objective posed, the respective research hypothesis was:

$H_0$: Culture excellence does not lead to improved organisational performance

$H_1$: Culture excellence leads to improved organisational performance

With a view to achieving this end, Field (2016) argues that the ideal approach to evaluating the research hypotheses is to use regression analyses. However, to establish whether to use parametric tests or non-parametric tests, according to IBM (2017), one of the key assumptions that ought to be met was the normality of the dependent variable. This was tested using the Shapiro-Wilk test and the results are presented below.

**Table 4.6: Test of Normality – Shapiro Wilk Test**

<table>
<thead>
<tr>
<th>Tests of Normality</th>
<th>Kolmogorov-Smirnov</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisational performance</td>
<td>175</td>
<td>.175</td>
</tr>
</tbody>
</table>

*a. Lilliefors Significance Correction*

**Source: Primary Research Data**
From the results, the corresponding p-value for the Shapiro-Wilk test was 0.164, and being greater than 0.05, we reject the null hypothesis for non-normality and conclude that there was sufficient evidence that the dependent variable, organisational performance was normally distributed. Effectively, according to IBM (2017), the results pointed to the fact that the most ideal approach would be parametric tests, ideally, linear regression analysis.

The regression analysis was computed and considered the distribution of data as being two-tailed, and was done at the 95% confidence level, with the independent variables being the 10 items that measured organizational culture while the dependent variable was organizational performance. The main results are presented in Table 4.7 below.

**Table 4.7: Regression Model Summary – Culture Excellence and Organisational performance**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.799</td>
<td>0.638</td>
<td>0.568</td>
<td>0.549</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Adopting a business excellence model with a simplified assessment criterion, adequate infrastructure, A focus on core business concepts such as leadership and constancy of purpose, Adoption of a performance assessment criteria that focuses on leadership performance, A commitment to be excellent by everyone in the company, Developing a culture at NRZ that allows for easy questioning of authority for the purposes of improving processes and systems, The adoption of business excellence model which follows leading models, Promoting knowledge sharing, interpersonal relationships, and good communication structure, Developing a culture at NRZ that allows for participation in decision making through employee involvement and consultation, Establishing a shared strong vision and mission; forming shared policies and strategies and developing people, A focus on difficult-to-measure items such as people, quality, and customer service

Source: Primary Research Data

From Table 4.7 above, the respective regression coefficient was 0.799 and the corresponding r-square was 0.638. From this basis, it can be argued that the 10 measures of culture excellence would explain 63.8% of the variation in the organizational performance of NRZ. The summative effect was very high and broadly shows that culture excellence had an influence on organizational performance. The respective test
of the hypothesis for the influence of the bigger construct is shown in the model fit test that was computed along with the regression.

Table 4.8: Model Fit Test – Summative Influence of Culture Excellence

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>27.596</td>
<td>10</td>
<td>2.760</td>
<td>9.155</td>
<td>000*</td>
</tr>
<tr>
<td>Residual</td>
<td>15.674</td>
<td>52</td>
<td>0.301</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>43.270</td>
<td>62</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Organisational performance

b. Predictors: (Constant), Adopting a business excellence model with a simplified assessment criterion, adequate infrastructure, A focus on core business concepts such as leadership and constancy of purpose, Adoption of a performance assessment criteria that focuses on leadership performance, A commitment to be excellent by everyone in the company, Developing a culture at NRZ that allows for easy questioning of authority for the purposes of improving processes and systems, The adoption of business excellence model which follows leading models, Promoting knowledge sharing, interpersonal relationships, and good communication structure, Developing a culture at NRZ that allows for participation in decision making through employee involvement and consultation, Establishing a shared strong vision and mission; forming shared policies and strategies and developing people, A focus on difficult-to-measure items such as people, quality, and customer service

Source: Primary Research Data

From the results, with $F(10, 52)=9.155$ being significant at $p=0.000<0.05$, we reject the null hypothesis and conclude that there was enough evidence at the 95% confidence level that the influence of culture excellence was very significant. It should be confirmed that other scholars have as well confirmed this relationship both for the SOE’s (Pathak, 2014; Williams, 2008) as well as for the private enterprises (Hofstede, 2016; Qawasmeh, et al., 2013).

Discussion of findings

The foregoing sections established conclusively the relationship between culture excellence practices and improved organisational performance. The influence of national culture (Hofstede; 1980, 2016; Ghemawat & Reiche, 2011) and organisational culture (Peters & Waterman, 2004; Schein 2010) was validated. This was through the responses obtained on variables of easy questioning of authority, preference of participatory type of leadership, knowledge sharing and nurturing of interpersonal relationships that established desirability of low-power-distance theory. Furthermore,
the research findings validated the theory by Peters & Waterman (1982) and Kotter & Heskett (2011) that effective implementation of best practices encompassed in dimensions of culture excellence leads to improved organisational performance.

4.5.2 Effectiveness of Strategies used in Managing Change

The second research objective sought to establish the effectiveness of the strategies that the organization was using in order to manage change. To this effect, the respondents were asked to rate 9 change management strategies on a 5-point Likert scale, with 1 representing strongly disagree and 5 strongly agree. The descriptive summary statistics are presented in Table 4.9.

Table 4.9: Descriptive Statistics – Effectiveness of Change Management Strategies

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Kurtosis</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation of effective change management principles during restructuring</td>
<td>63</td>
<td>4.10</td>
<td>.640</td>
<td>1.011</td>
<td>.595</td>
</tr>
<tr>
<td>Understanding forces of change affecting NRZ</td>
<td>63</td>
<td>4.25</td>
<td>.621</td>
<td>-.553</td>
<td>.595</td>
</tr>
<tr>
<td>A strategy that simultaneously mitigate the impact of restraining forces while building on driving forces</td>
<td>63</td>
<td>3.89</td>
<td>.764</td>
<td>-.274</td>
<td>.595</td>
</tr>
<tr>
<td>Improving individual employees financial and non-financial rewards and benefits</td>
<td>62</td>
<td>3.81</td>
<td>1.114</td>
<td>.800</td>
<td>.599</td>
</tr>
<tr>
<td>Empowering teams to make decisions that affect their work environment</td>
<td>60</td>
<td>4.30</td>
<td>.962</td>
<td>3.619</td>
<td>.608</td>
</tr>
<tr>
<td>The adoption of a transformational change pathway rather than incremental or transitional</td>
<td>62</td>
<td>3.76</td>
<td>.759</td>
<td>-3.97</td>
<td>.595</td>
</tr>
<tr>
<td>A strategy which seeks to understand all the factors that are affecting NRZ</td>
<td>63</td>
<td>4.19</td>
<td>.948</td>
<td>3.800</td>
<td>.595</td>
</tr>
<tr>
<td>An effective implementation of strategies of managing resistance to change</td>
<td>63</td>
<td>4.06</td>
<td>.859</td>
<td>.119</td>
<td>.595</td>
</tr>
<tr>
<td>Implementing appropriate change communication</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Research Data
From the results above, generally the respondents did concur with each other as seen in the prevalence of items with positive kurtosis, which all follow that the respondents did agree with each other to a greater extent. From the outcome, the highest rated change management strategy was the empowerment of teams to make decisions that affect their work environment, and the respective mean statistic was 4.30, the kurtosis statistic being the highest, 3.619. The second highest rated strategy was the promulgation of information to the employees that ensured the understanding of the forces of change affecting NRZ. This had the second highest mean rating of 4.25, with a low standard deviation of 0.621, and a kurtosis of -0.553. The third rated strategy was the move towards ensuring that the employees understood the factors affecting NRZ, with a high mean rating of 4.19. The other strategy that was highly rated had a mean of 4.14 and corresponded to the implementation of strategies of managing resistance to change.

It should be mentioned that neither of the strategies was rated below the cut-off point of 3.0. What this meant was that the respondents did confirm that the strategies being implemented all were all effective and had an influence towards organisational performance. The least rated corresponded to the adoption of a transformational change pathway rather than incremental or transitional and the corresponding mean statistic was 3.76. The second least rated was the improvement of individual employees financial and non-financial rewards and benefits and this had a mean statistic of 3.81, while the third least rated was the change strategy that simultaneously mitigate the impact of restraining forces while building on driving forces.

With a view to inferentially testing the second objective, the corresponding hypothesis was:

$H_0$: Change strategies have not lead to improved organisational performance

$H_2$: Change strategies have led to improved organisational performance

Regression analysis was computed to help address this second hypothesis and the results are summarized in Table 4.10.
Table 4.10: Regression Model Summary - Change Strategies and Organisational performance

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.735a</td>
<td>.541</td>
<td>.454</td>
<td>.631</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Implementing appropriate change communication, Empowering teams to make decisions that affect their work environment, A strategy which seeks to understand all the factors that are affecting NRZ, Implementation of effective change management principles during restructuring, The adoption of a transformational change pathway rather than incremental or transitional, Improving individual employees financial and non-financial rewards and benefits, Understanding forces of change affecting NRZ, A strategy that simultaneously mitigate the impact of restraining forces while building on driving forces, An effective implementation of strategies of managing resistance to change

Source: Primary Research Data

Basing on the regression analysis, the regression coefficient computed for the study was 0.735, and the respective r-square statistic was 0.541. It follows from the foregoing that 54.1% of the variation in organisational performance was accounted for by the change strategies that had been instituted by the organization. With a view to testing the significance of the hypothesis, the regression model fit was computed, and the results are summarized in Table 4.11.

Table 4.11: Regression Model Fit - Change Strategies and Organisational performance

<table>
<thead>
<tr>
<th>ANOVA*</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>22.519</td>
<td>9</td>
<td>2.502</td>
<td>6.276</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>19.136</td>
<td>48</td>
<td>.399</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>41.655</td>
<td>57</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Organisational performance

b. Predictors: (Constant), Implementing appropriate change communication, Empowering teams to make decisions that affect their work environment, A strategy which seeks to understand all the factors that are affecting NRZ, Implementation of effective change management principles during restructuring, The adoption of a transformational change pathway rather than incremental or transitional, Improving individual employees financial and non-financial rewards and benefits, Understanding forces of change affecting NRZ, A strategy that simultaneously mitigate the impact of restraining forces while building on driving forces, An effective implementation of strategies of managing resistance to change

Source: Primary Research Data
From the results, the f-ratio $F(9, 48)=6.276; p<0.05$. Effectively, with a p-value less than 0.05, we reject the null hypothesis and conclude that there was enough statistical evidence to support the alternative hypothesis that change strategies being used to manage change in the organization have a significant influence on organizational performance. Because a successful change process is only possible if people within the organisation are willing to change and help (Deming, 2005), it follows then that the strategies being used at NRZ are effective. With respect to NRZ, which is in the process of turnaround, it is argued that in the process of implementing change staff motivation and commitment could be reduced or destroyed (Everett, 2003; Revi, et al. 2014). Kotter and Schlesinger (1979) further argues that by failing to put adequate strategies, this may lead to resistance. Nevertheless, from the foregoing analysis, with the performance having been seen to be improving, the researcher argues that the change strategies that were being implemented were effective.

4.5.3 To examine the influence of Macro-Techniques of quality management on organisational performance.

The third research objective sought to examine the influence of macro-techniques of quality management on organisational performance. Several strategies have been proffered in the research literature, and for this study, the principal strategies were evaluated on a 5-point Likert scale. The descriptive summaries of the study findings for these strategies are presented in Table 4.12.

<table>
<thead>
<tr>
<th>Table 4.12: Descriptive Statistics - Macro-Techniques of quality management influence on organisational performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>Statistic</td>
</tr>
<tr>
<td>The application of benchmarking from the best players in that industry</td>
</tr>
<tr>
<td>The discovery of innovative methodologies arising from benchmarking processes</td>
</tr>
<tr>
<td>The introduction of radical changes to the business processes that drive the performance of SOE’s</td>
</tr>
<tr>
<td>Adequate knowledge in managers about organisations they are tasked to run</td>
</tr>
</tbody>
</table>
The acquisition of modern information technology systems & 63 & 4.54 & .643 & 2.705 & .595 \\
The implementation of Total Quality Management & 63 & 4.41 & .835 & 1.464 & .595 \\
Treating quality improvement as a never-ending quest & 63 & 4.46 & .692 & -.371 & .595 \\
Adoption of Results Based Management system as a performance management tool & 63 & 4.22 & 1.114 & 2.612 & .595 \\
Valid N (listwise) & 63 & & & & \\

Source: Primary Research Data

It is evident from the above that all the mean statistics were greater than the cut-off point, 3.0. What this means is that all the strategies proffered had a positive influence on organisational performance. From the analysis above, the top-rated macro-technique with the most influence on organisational performance related to the acquisition of modern information technology systems, and had the highest mean statistic of 4.54, with the least standard deviation of 0.643. The fact that the corresponding kurtosis was the highest (2.705) is indicative of the high coherence among the respondents on the significance of technology. This finding is supported by O’Brien (2011), who proffer the need for organisations to leverage on the ever-evolving technologies with a view to improving their organizational performance.

The second highest influential macro-technic related to treating quality improvement as a never-ending quest, and this had a mean statistic of 4.46, followed by the implementation of Total Quality Management, with a mean statistic of 4.41. The other key strategies which were highly rated in terms of their influence included the application of benchmarking from the best players in that industry, the discovery of innovative methodologies arising from benchmarking processes, along with the adoption of Results Based Management system as a performance management tool.

Albeit the positive ratings, it should be noted that the least rated had a mean of 3.68 and related to the need to introduce radical changes to the business processes that drive the performance of SOE’s. This latter finding is supported by Johansson and Heide (2008), who argue that the introduction of radical changes to an organization are one of the major reasons that affect negatively the success of any organisational changes. Rather,
Hartley and Bruckham (2002), support the need for gradual change, and the development of clear-cut project specifications citing that that effective communication of the scope of the project is highly important in times of organisational change.

With a view to exploring further the influence of macro-techniques, as recommended by Field (2016), Principal Component Analysis (PCA) was considered. However, one of the principal assumptions for the use of PCA was that the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy ought to be greater than 0.5, while the Bartlett’s Test of Sphericity ought to be significant, at p<0.05. The results are presented in Table 4.13.

**Table 4.13: KMO and Bartlett's Test - Macro-Techniques**

<table>
<thead>
<tr>
<th>KMO and Bartlett's Test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</td>
<td>.637</td>
</tr>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td></td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>111.558</td>
</tr>
<tr>
<td>Df</td>
<td>28</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
</tr>
</tbody>
</table>

**Source: Primary Research Data**

The computed KMO statistic was 0.638, and being greater than 0.5, we can argue that the sample used in this study was adequate for the use of PCA. On the other hand, the Bartlett’s test was significant, again validating the use of PCA. To this effect, PCA was carried out as the factor extraction method using the Varimax rotation. The respective total variance explained is presented in Table 4.14 below. From the results, only three components were extracted, with an eigenvalue greater than 1.0, and these explained a total variance of 65.954%, which is greater than 50%, as put forth by Bryman and Bell (2015). Effectively, the first component comprised of the greatest variation of 29.486%, while the second explained 19.363%.
Table 4.14: Total Variance Explained - Macro-Techniques

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
<th>Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
<td>Cumulative %</td>
</tr>
<tr>
<td>1</td>
<td>2.442</td>
<td>30.523</td>
<td>30.523</td>
</tr>
<tr>
<td>2</td>
<td>1.526</td>
<td>19.070</td>
<td>49.593</td>
</tr>
<tr>
<td>3</td>
<td>1.309</td>
<td>16.361</td>
<td>65.954</td>
</tr>
<tr>
<td>4</td>
<td>.854</td>
<td>10.676</td>
<td>76.630</td>
</tr>
<tr>
<td>5</td>
<td>.577</td>
<td>7.209</td>
<td>92.514</td>
</tr>
<tr>
<td>6</td>
<td>.323</td>
<td>4.037</td>
<td>96.551</td>
</tr>
<tr>
<td>7</td>
<td>.276</td>
<td>3.449</td>
<td>100.000</td>
</tr>
</tbody>
</table>

Source: Primary Research Data

The corresponding rotated component matrix is presented in Table 4.15. Only items with factor loadings of 0.5 and above were considered (Hair et al., 2010).

Table 4.15: Rotated Component Matrix - Macro-Techniques

<table>
<thead>
<tr>
<th>Rotated Component Matrix</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>The implementation of Total Quality Management system such as ISO Certification at NRZ</td>
<td>.829</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treating quality improvement as a never-ending quest</td>
<td>.771</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The discovery of innovative methodologies arising from benchmarking processes</td>
<td>.733</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequate knowledge in managers about organisations they are tasked to run</td>
<td>.642</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The introduction of radical changes to the business processes that drive the performance of SOE’s</td>
<td></td>
<td>.816</td>
<td></td>
</tr>
<tr>
<td>The application of benchmarking from the best players in that industry</td>
<td></td>
<td>.611</td>
<td></td>
</tr>
<tr>
<td>Adoption of Results Based Management system as a performance management tool</td>
<td></td>
<td></td>
<td>.769</td>
</tr>
<tr>
<td>The acquisition of modern information technology systems</td>
<td></td>
<td></td>
<td>.625</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 7 iterations.

Source: Primary Research Data
From the foregoing, the three components and their respective items included:

**Component 1 - TQM**
- The implementation of Total Quality Management systems
- Treating quality improvement as a never-ending quest
- The discovery of innovative methodologies arising from benchmarking processes
- Adequate knowledge in managers about organisations they are tasked to run

It is evident that the first component related to the improvement in the quality of services, and the management thereof, and this is supported by Lin et al., (2013), as being one of the key strategies that can be used by organisations to help in improving efficiency and effectiveness of business processes.

**Component 2 - Process Improvement**
- The introduction of radical changes to the business processes
- The application of benchmarking from the best players in that industry

The second component related much to the improvement in the processes, which can best be related to the aspect of radical change, along with benchmarking which according to Mollae, et al (2013), Zairi (2010) and Bahramnejad, et al. (2015) are critical towards ensuring the transformation of non-performing institutions into better performing institutions. With process improvement, the existing gaps are identified, and it is from these gaps that improvements are made (Hammer, 1990; Mohapatra, 2013)

**Component 3 – Business Intelligence**
- Adoption of results-based management system as a performance management tool
- The acquisition of modern information technology systems

The third component broadly brought forth the element of business intelligence, and this is well supported by modern scholars Du, et al. (2010) and Tehraninasr & Darani (2009) arguing that information technology is one of the drivers to a successful turnaround. Davenport and Short (1990) further argues that for successful
organizational restructuring, there ought to be integrated process management, and the adoption of technology ensures these capabilities, along with the ability to quantify and measure performance in an organization.

Hypothesis Test - Macro-Techniques and Organisational Performance

Having examined the third research construct, macro-techniques, from a descriptive point of view, the third research hypothesis was mainly tailored towards evaluating whether macro-techniques have an impact on organizational performance. The respective hypothesis was:

H$_0$: Macro-Techniques of quality management do not lead to improved organisational performance

H$_3$: Macro-Techniques of quality management do lead improved organisational performance

From the earlier tests for normality, the distribution in the dependent variable was confirmed to be normally distributed, and to this effect, linear regression was used for this objective. The regression model summary is presented in Table 4.16.

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.712$^a$</td>
<td>.507</td>
<td>.445</td>
<td>.623</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Adoption of Results Based Management system as a performance management tool, Adequate knowledge in managers about organisations they are tasked to run, The application of benchmarking from the best players in that industry, The acquisition of modern information technology systems , Treating quality improvement as a never-ending quest, The introduction of radical changes to the business processes that drive the performance of SOE’s, The discovery of innovative methodologies arising from benchmarking processes

Source: Primary Research Data

The regression statistic computed from the foregoing was 0.712, and the corresponding r-square statistic was 0.507. From this outcome, we can argue that 50.7% of the variation in organizational performance was explained by macro-techniques. With
respect to the validity of the regression model, the results are presented in the model fit test below.

### Table 4.17: Regression Model Fit Test - Macro-Techniques

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>21.948</td>
<td>7</td>
<td>3.135</td>
<td>8.088</td>
<td>.000&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Residual</td>
<td>21.322</td>
<td>55</td>
<td>.388</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>43.270</td>
<td>62</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Organisational performance  

b. Predictors: (Constant), Adoption of Results Based Management system as a performance management tool, Adequate knowledge in managers about organisations they are tasked to run, The application of benchmarking from the best players in that industry, The acquisition of modern information technology systems, Treating quality improvement as a never-ending quest, The introduction of radical changes to the business processes that drive the performance of SOE’s, The discovery of innovative methodologies arising from benchmarking processes

Source: Primary Research Data

From the computation in the above tests, $F(7, 55)= 8.088; \ p<0.05$, and this confirms that there was enough statistical evidence at the 95% confidence level that the relationship was significant. The researcher, therefore, rejects the null hypothesis and concluded with the alternative hypothesis that the relationship between Macro-Techniques of quality management and organizational performance was statistically significant. This finding generally concurs with the arguments put forth by Ishikawa (1985), Keng-Boon (2009) and Wauters (2013) who as well supports the presence of a significant relationship between macro-techniques and organizational performance.

### 4.5.4 Overall Business Excellence Model and Organisational Performance

The previous objectives investigated each of the three aspects of the business excellence model, that is, culture excellence, change strategy as well as macro-techniques of quality management. However, the fourth research objective sought to evaluate whether the Business Excellence Model had a significant influence on organizational performance. The corresponding hypothesis being tested was:
H₀: The Business Excellence Model does not lead to improved organisational performance
H₄: The Business Excellence Model does lead into improved organisational performance

Basing on the research conceptual framework, the business excellence model that was considered in this research was operationalized by three constructs, that is, culture excellence, change strategy and macro-techniques. As recommended by Little, Slegers, and Card (2006), Little et al. (2007), Hair et al. (2010), for the study of the multiplicative effects of culture excellence, change strategy and macro-techniques, otherwise collectively known as the Business Excellence Model, structural equation modelling (SEM) is the ideal approach owing to the robustness and accuracy of the technique, especially its ability to measure the presence of measurement error, as compared to other approaches such as multiple regression. Following the analysis of the eventual structural equation model in SPSS Amos, the respective results are presented in Figure 4.6 below.

From the structural equation model below, Business Excellence Model was not directly measured by the research instrument. Rather, it was inferred from cultural excellence, change strategy and macro-techniques and hence the treatment of the construct as a latent variable (oval shape) over a direct factor (rectangular) (Hair et al., 2010; 2018; Field, 2016; IBM, 2017).

![Figure 4.6: Structural Equation Model - Business Excellence Model](source: Primary Research Data)
From the SEM model, it is evident that the business excellence model was explained better by cultural excellence, whose regression coefficient was 1.34, while change strategy was the second significant measurement for the business excellence model, with a coefficient of 1.00. The least weight for the determination of the business excellence model was macro-techniques. From these findings, it can be argued that the cultural excellence contributed the highest influence on the business excellence model, followed by change strategy, and then by macro-techniques. These weights were statistically significant as shown in Table 4.18, where cultural excellence had the greatest standardized regression weight (0.939).

Table 4.18: Regression Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

<table>
<thead>
<tr>
<th>Label</th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE</td>
<td>&lt;--- BEM</td>
<td>1.336</td>
<td>.272</td>
<td>4.918</td>
</tr>
<tr>
<td>CMS</td>
<td>&lt;--- BEM</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MT</td>
<td>&lt;--- BEM</td>
<td>.901</td>
<td>.242</td>
<td>3.722</td>
</tr>
<tr>
<td>PP</td>
<td>&lt;--- BEM</td>
<td>2.060</td>
<td>.456</td>
<td>4.522</td>
</tr>
</tbody>
</table>

Standardized Regression Weights: (Group number 1 - Default model)

<table>
<thead>
<tr>
<th>Label</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE</td>
<td>.939</td>
</tr>
<tr>
<td>CM</td>
<td>.654</td>
</tr>
<tr>
<td>MT</td>
<td>.523</td>
</tr>
<tr>
<td>BP</td>
<td>.652</td>
</tr>
</tbody>
</table>

Source: Primary Research Data

With respect to the relationship between the Business Excellence Model (BEM) and organizational performance, the corresponding unstandardized regression weight was 2.060, while the standardized regression weight was 0.652. The corresponding critical ratio was 4.522 and being greater than the critical z-score of 1.96 at the 95% significance, p<0.000, we can thus argue that there was enough statistical evidence that the business excellence model (BEM) did have a significant impact on organizational performance (OP). To this effect, we reject the null hypothesis and conclude with the
null hypothesis that the business excellence model does lead to improved organisational performance. This research outcome is consistent with what several scholars also established, amongst which include Peters & Waterman (2004), Chen & Jang (2011), Alonso-Almeida (2011), Doeleman et al (2014) and Pakhale (2017).

With respect to the multiplicative effect of culture excellence, change strategy and macro-techniques as sub-measures of the business excellence model, it can be confirmed that collectively, these factors explained up to 42.6% variation in the variation of organizational performance, and this is shown in Table 4.19 below.

Table 4.19: Squared Multiple Correlations: (Group number 1 - Default model)

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>OP</td>
<td>.426</td>
</tr>
<tr>
<td>MT</td>
<td>.274</td>
</tr>
<tr>
<td>CS</td>
<td>.428</td>
</tr>
<tr>
<td>CE</td>
<td>.881</td>
</tr>
</tbody>
</table>

Source: Primary Research Data

With respect to the validity of the structural equation model, the researcher went forward to assessing the fit indices. For the absolute fit index, which does not use an alternative model for the fitness assessment, the CMIN/DF was used, and for the relative fit indices, IFI, and CFI were used to compare to the baseline model. The resultant model fit results are presented below. From the results above, the CMIN/DF statistic was 0.557, and according to Field (2016) any statistic less than 2.00 would be ideal, citing a maximum of 3.0, with a p-value greater than 0.05. Being less than the critical value, we can confirm that the model fit was acceptable. Further justification can be seen by the NFI, IFI and CFI statistics, all of which exceeded the minimum threshold of 0.90, according to IBM (2017) and Hair et al. (2010), with respective ratings of 0.986, 1.012 and 1.000.
Table 4.20: Model Fit Summary for CMIN, Baseline Comparisons and RMSEA

<table>
<thead>
<tr>
<th>Model</th>
<th>NPAR</th>
<th>CMIN</th>
<th>DF</th>
<th>P</th>
<th>CMIN/DF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default model</td>
<td>12</td>
<td>1.115</td>
<td>2</td>
<td>.573</td>
<td>.557</td>
</tr>
<tr>
<td>Saturated model</td>
<td>14</td>
<td>.000</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independence model</td>
<td>8</td>
<td>77.508</td>
<td>6</td>
<td>.000</td>
<td>12.918</td>
</tr>
</tbody>
</table>

Baseline Comparisons

<table>
<thead>
<tr>
<th>Model</th>
<th>NFI Delta1</th>
<th>RFI rho1</th>
<th>IFI Delta2</th>
<th>TLI rho2</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default model</td>
<td>.986</td>
<td>.957</td>
<td>1.012</td>
<td>1.037</td>
<td>1.000</td>
</tr>
<tr>
<td>Saturated model</td>
<td>1.000</td>
<td></td>
<td>1.000</td>
<td></td>
<td>1.000</td>
</tr>
<tr>
<td>Independence model</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

RMSEA

<table>
<thead>
<tr>
<th>Model</th>
<th>RMSEA</th>
<th>LO 90</th>
<th>HI 90</th>
<th>PCLOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default model</td>
<td>.000</td>
<td>.000</td>
<td>.212</td>
<td>.619</td>
</tr>
<tr>
<td>Independence model</td>
<td>.438</td>
<td>.354</td>
<td>.528</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Primary Research Data

Hair et al. (2010) further mentions that the RMSEA statistic ought to be less than 0.05, which in this case was 0.000. With all these tests validating the model fit, the researcher argues that the generated structural equation model used in this study to test the significance of the business excellence model on organizational performance was significant.

Discussion of findings

Generally, the respondents agree that adoption of Business Excellence Models can lead to improved performance of NRZ in line with findings of EFQM Excellence Model (2002); Pakhale (2017). This finding is supported by positive perception which the respondents view BEM. Respondents overwhelmingly perceive BEM as a valuable
management tool. This is a key finding as allayed by Chen & Jang (2011) who argue that the most crucial thing is how BEMs are perceived by the adopters.

4.5.5 Ideal Turnaround Strategies

The fourth research objective sought to identify the optimal turnaround strategies appropriate for SOEs restructuring under a business excellence framework. As with the preceding objectives, the principal strategies were identified from the literature and the respondents were asked to rate these on a 5-point Liker scale. The summary of the research findings is presented in Table 4.21 below.

Table 4.21: Descriptive Statistics - Ideal Turnaround Strategies

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Kurtosis</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privatization of publicly owned entities such as NRZ</td>
<td>63</td>
<td>3.62</td>
<td>1.313</td>
<td>-1.203</td>
<td>.595</td>
</tr>
<tr>
<td>Deregulation i.e. opening up of the national rail network to private players</td>
<td>63</td>
<td>3.89</td>
<td>1.094</td>
<td>-.505</td>
<td>.595</td>
</tr>
<tr>
<td>Adoption of multi-strategies e.g. re-organisation of structure and assets, statutory amendments and rationalisation of operations</td>
<td>63</td>
<td>4.08</td>
<td>.747</td>
<td>1.210</td>
<td>.595</td>
</tr>
<tr>
<td>Interference with management decisions in operations of NRZ</td>
<td>63</td>
<td>3.63</td>
<td>1.021</td>
<td>-1.075</td>
<td>.595</td>
</tr>
<tr>
<td>The adoption of a customer driven culture at NRZ</td>
<td>63</td>
<td>4.27</td>
<td>.627</td>
<td>1.524</td>
<td>.595</td>
</tr>
<tr>
<td>The injection of new capital in the operations of NRZ</td>
<td>63</td>
<td>4.44</td>
<td>.757</td>
<td>1.878</td>
<td>.595</td>
</tr>
<tr>
<td>Re-equipping NRZ through acquiring and refurbishing wagons, locomotives and signaling equipment under existing management</td>
<td>60</td>
<td>4.12</td>
<td>1.027</td>
<td>.842</td>
<td>.608</td>
</tr>
<tr>
<td>Entering into management contracts with seasoned leading global partners</td>
<td>63</td>
<td>3.51</td>
<td>1.435</td>
<td>-1.147</td>
<td>.595</td>
</tr>
<tr>
<td>Rebranding NRZ</td>
<td>59</td>
<td>3.41</td>
<td>1.205</td>
<td>-.986</td>
<td>.613</td>
</tr>
<tr>
<td>Influencing the ideologies, philosophies, beliefs and attitudes of NRZ employees in the rebranding of NRZ</td>
<td>63</td>
<td>4.02</td>
<td>.889</td>
<td>1.394</td>
<td>.595</td>
</tr>
</tbody>
</table>

Valid N (listwise) | 56 |

Source: Primary Research Data
Based on the findings above, it should be acknowledged that none of the strategies proffered was weighed with a mean statistic less than the cut-off point, 3.0. What this means is that all the suggested recommendations were optimal. The top-rated recommendation related to the injection of new capital in the operations of NRZ, and had the highest mean of 4.44, and had a leptokurtic distribution as evidenced by the high positive kurtosis of 1.878. Generally, the significance of capital is reinforced by Mufuya & Chirimubwe, (2017) and Kopicki, et al. (1995) who emphasise on the significance of capitalization of organisations to ensure the seamless transformation and successful turnaround. Of late, at the time of this writeup, the country was significantly affected by an illiquid economy (RBZ, 2017) with diminishing chances of its availability in time. As a result, since NRZ depends mainly on foreign suppliers for its train purchases and repairs, the illiquidity situation significantly affects its operations in a negative way.

The second highest strategy was rated with a mean of 4.27 and related to the adoption of a customer driven culture at NRZ. Albeit the fact that this has roots in marketing, the need to be customer centric is at the heart of the success of turnaround strategies, as put forth by Sheth, et al. (2000) and Routroy & Pradhan (2013). This dire need lies on the fact that the customer ought to be engaged at each turn from the creation of services to the implementation of some of the changes in the organization that affect customers. As a result, the customers will be able to proffer their own expectations and needs from a service or product. Ultimately, this will have a significant role towards the performance of the organisation, as well as in the determination of the demand patterns. In the context of NRZ, this may mean the engagement of customers in terms of what they expect, be it train scheduling or availability, among other factors as it helps to restore public trust in its services.

The other approaches that the respondents agreed to include the adoption of multi-strategies as researched by Terada (2001) e.g. re-organisation of structure and assets, statutory amendments and rationalisation of operations, the re-equipping NRZ through acquiring and refurbishing wagons, locomotives and signaling equipment under existing management along with influencing the ideologies, philosophies, beliefs and
attitudes of NRZ employees in the rebranding of NRZ. Nevertheless, according to Tevi & Otubanjo (2013), the top management competency and commitment has a significant role to play towards the feasibility of the above change implementations. This fact is well supported by Peters & Waterman (2004), Snowden & Boone (2007), Dale, et al (2007), Alonso-Almeida (2011) and Brown (2012) who all look up to the management as the enablers of a successful turnaround strategy.

The other strategies proffered, though poorly rated were the privatization of publicly owned entities such as NRZ as researched by Omran (2004) as well as Smith and Trebilcock (2001), deregulation i.e. opening up of the national rail network to private players, interference with management decisions in operations of NRZ, entering into management contracts with seasoned leading global partners along with the rebranding of NRZ. On the part of NRZ, further rebranding will as well help create the new look and feel that will consolidate the efforts towards total turnaround by the organization as was concluded by Juntunen, et al. (2009), De Chernatony (2010) as well as Tevi and Otubanjo, (2013).

With a view to further exploring the turnaround strategies, again, Principal Component Analysis was chosen. The corresponding test for the assumptions for the use of PCA, that is, Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's Test of Sphericity are presented in Table 4.22.

**Table 4.22: KMO and Bartlett's Test - Ideal Turnaround Strategies**

<table>
<thead>
<tr>
<th></th>
<th>KMO and Bartlett's Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</td>
<td>.778</td>
</tr>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td>Approx. Chi-Square 193.373</td>
</tr>
<tr>
<td></td>
<td>Df 45</td>
</tr>
<tr>
<td></td>
<td>Sig. .000</td>
</tr>
</tbody>
</table>

*Source: Primary Research Data*

From the results, the KMO statistic was found to be 0.778>0.5, while the Bartlett’s test was significant (p<0.05). These findings according to Field (2016) do validate the use of PCA as a dimension reduction technique for this objective. Effectively, PCA was computed out as the factor extraction method using the Varimax rotation. The total variance explained is presented in Table 4.18 below. Four components were extracted,
and these had eigenvalues greater than 1.0. The total variance explained was 73.363%, and again, this was greater than 50%, the minimum threshold set by Bryman and Bell (2015). Component 1 explained 24.989% of the variation, while component 2 explained 19.425%. Component 3 explained 17.196% of the variation and Component 4, least, that is 11.753%.

### Table 4.23: Total Variance Explained - Ideal Turnaround Strategies

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
<th>Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
<td>Cumulative %</td>
</tr>
<tr>
<td>2</td>
<td>1.942</td>
<td>19.425</td>
<td>44.413</td>
</tr>
<tr>
<td>3</td>
<td>1.720</td>
<td>17.196</td>
<td>61.610</td>
</tr>
<tr>
<td>4</td>
<td>1.175</td>
<td>11.753</td>
<td>73.363</td>
</tr>
<tr>
<td>5</td>
<td>.949</td>
<td>9.493</td>
<td>82.855</td>
</tr>
<tr>
<td>6</td>
<td>.562</td>
<td>5.618</td>
<td>88.473</td>
</tr>
<tr>
<td>7</td>
<td>.445</td>
<td>4.445</td>
<td>92.919</td>
</tr>
<tr>
<td>8</td>
<td>.352</td>
<td>3.518</td>
<td>96.436</td>
</tr>
<tr>
<td>9</td>
<td>.245</td>
<td>2.454</td>
<td>98.890</td>
</tr>
<tr>
<td>10</td>
<td>.111</td>
<td>1.110</td>
<td>100.000</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

Source: Primary Research Data

The respective rotated component matrix is presented in Table 4.24.

### Table 4.24: Rotated Component Matrix - Ideal Turnaround Strategies

<table>
<thead>
<tr>
<th></th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Privatization of publicly owned entities such as NRZ</td>
<td>.940</td>
</tr>
<tr>
<td>Deregulation i.e. opening up of the national rail network to private players</td>
<td>.922</td>
</tr>
<tr>
<td>Interference with management decisions in operations of NRZ</td>
<td>.786</td>
</tr>
<tr>
<td>Influencing the ideologies, philosophies, beliefs and attitudes of NRZ employees in the rebranding of NRZ</td>
<td>.754</td>
</tr>
<tr>
<td>Rebranding NRZ</td>
<td>.597</td>
</tr>
<tr>
<td>Entering into management contracts with seasoned leading global partners</td>
<td>.537</td>
</tr>
<tr>
<td>The injection of new capital in the operations of NRZ</td>
<td>.920</td>
</tr>
</tbody>
</table>
Re-equipping NRZ through acquiring and refurbishing wagons, locomotives and signaling equipment under existing management & .875 \\
Adoption of multi-strategies e.g. re-organisation of structure and assets, statutory amendments and rationalisation of operations & .884 \\
The adoption of a customer driven culture at NRZ & .721 \\
| Extraction Method: Principal Component Analysis. |  |
| Rotation Method: Varimax with Kaiser Normalization. |  |
a. Rotation converged in 5 iterations. |

Source: Primary Research Data

The four main turnaround strategies that were extracted from the results above included:

**Component 1: Commercialisation**
- Privatization of publicly owned entities such as NRZ
- Deregulation i.e. opening up of the national rail network to private players

The commonality between the above issue related to the need to open the rail network to other players to bring efficiencies. This relates to commercialisation as was found out by Omran (2004) and the Group for Legal and Political Studies (2012).

**Component 2: Organisational Culture**
- Interference with management decisions in operations of NRZ
- Influencing the ideologies, philosophies, beliefs and attitudes of NRZ employees in the rebranding of NRZ.

The second component brought to the fore issues of organisational culture. Various researchers assert that organisational culture is significant in organisational behaviour and performance (Peters and Waterman 2004; Schein 2010). The claim is buttressed by the call for business leaders to diagnose organisational culture in the quest towards organisational effectiveness (Gamage, 2006)

**Component 3: Capitalisation**
- The injection of new capital in the operations of NRZ
- Re-equipping NRZ through acquiring and refurbishing wagons, locomotives and signaling equipment under existing management
The finding is in line with researchers Mufuya & Chirimubwe (2017) who advised that NRZ should introduce massive infrastructure development programs such as, Built Own Operate Transfer (BOOT) programs to enhance independent investors to recapitalise and develop the rail equipment.

**Component 4: Business Process Reengineering**

- Adoption of multi-strategies e.g. re-organisation of structure and assets, statutory amendments and rationalisation of operations
- The adoption of a customer driven culture at NRZ

The fourth component centered around business process reengineering. The finding is consistent with Bahramnejad, et al. (2015) and Guimaraes & Bond (1996) who identified that BPR make processes more competitive by improving quality, reducing costs, and shortening the product development cycle.

4.6 Chapter Summary

The chapter gave a detailed account of how data gathered during field research was analysed. Foremost, a response rate was calculated to establish basis of generalizability of the research findings. At 88.7%, the response rate was adjudged to be more than adequate given an optimum threshold of 60%. Reliability analysis was executed on the basis of Cronbach alpha test static. Indeed, the research instrument’s statistic at 0.781 proved to be valid and reliable. The researcher investigated characteristics within the data that has the potential of unearthing unknown relationships by running demographic analysis. The analysis included five constructs i.e. gender, age, experience, departmental and designation distributions. The rest of the chapter involved descriptive and inferentially testing the five research objectives. For each objective, mean, standard deviation, kurtosis, inferential tests i.e. test of normality and ANOVA tests were conducted. Objective 3 and 5 also included the KMO and Bartlett tests while Objective 4 was subjected to structural equation model tests to investigate the main research hypothesis i.e. overall applicability of the BEM given the three constructs of culture excellence, change management and macro-techniques of quality management.

Overall, objective’s 1 to 4 Anova results indicated that there was enough statistical evidence that the constructs of culture excellence, change management, macro-
techniques of quality management and indeed the BEM itself did have a significant impact on organisational performance. To this end null hypothesis were rejected at the 95% confidence level and concluded that the alternative hypothesis were statistically significant.
CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
The previous chapter presented the key research findings with respect to the research objectives which the researcher had sought to investigate, basing on a sample size of 63 respondents. These findings were presented by objective, and to help with the validation of the findings, reference to the literature was made at each turn with a view to relating the findings and the literature coverage wherefrom key research contributions would emerge. This chapter aggregates all the research findings and thus acts as the conclusive chapter that puts the entire research in perspective. The chapter validates the main research hypothesis before proffering recommendations on gaps identified.

5.2 Achievement of research objectives
The major research objectives that this study investigated are repeated below and a discussion on the extent of their achievement is made.

5.2.1 To investigate the impact of culture excellence in improving organisational performance of SOE.
With respect to the hypothesis tested, it emerged that indeed, the impact of cultural excellence on organizational performance was statistically significant (p<0.05). This was characterized by a high regression coefficient of 0.799, and a corresponding r-square of 0.638.

This finding was significant as it was consistent with argument from the literature that culture excellence played a pivotal role towards the performance of organisations, as argued by Štok, et al. (2010), Arussy (2008) and Qawasmeh, et al. (2013).

The principal aspects that interlinks and give an excellence character to an organisation were identified as the commitment towards excellence, knowledge sharing, a finding supported by Senge (1990) and Rastogi (2000), interpersonal relationships, developing a culture at NRZ that allows for
participation in decision making as researched by Schein (2010) and good communication structure as researched by Štok, et al. (2010). These findings further validate the research objective that culture excellence has an impact on organisational performance.

5.2.2 To assess the effect of change management strategies on organisational performance of SOE’s adopting BEM

Results from the inferential tests conducted indicate that the relationship between change management and organizational performance was significant with the corresponding p-value being less than 0.05. On the other hand, the regression coefficient obtained from the findings was also high (0.735), albeit being lower than that for the influence of culture excellence. Nevertheless, the significant influence of change management towards organizational performance is supported by Lewin (1947;1951), Kotter (1995) and Senge, et al., (1999) and Anderson & Anderson (2010).

The independent variable was based on the literature conceptualization of change strategies. From the assessment of the Likert-based scale, the change management component at NRZ was best identified with the empowerment of teams to make decisions that would affect their work environment. This is in line with findings by Lewin (1947) on group dynamics that concluded that effective change is likely to occur where there is involvement of group members in the discussion of issues affecting them. Furthermore the understanding of the forces of change was identified by respondents as key, as was researched by Peters and Waterman (1982), Kanter (1989) and Burnes (1996).

5.2.3 To examine the influence of Macro-Techniques of quality management on organisational performance of SOE’s adopting BEM.

The influence of macro-techniques of quality management on organizational performance was established to be significant with the respective p-value being less than 0.05. Nevertheless, despite that the regression coefficient was high, it was the least as compared with culture excellence and change management.
The study further analysed the principal macro-techniques of quality management using factor analysis techniques. Three principal macro-techniques were extracted and found to have significant influence on organisational performance. These included *Total Quality Management* as researched by Alonso-Almeida & Fuentes-Frias (2010), *Business Process Reengineering* as proffered by Bahramnejad, et al. (2015) and Guimaraes & Bond (1996) and *Results-based management* as found by Mayne (2017).

5.2.4 To establish the applicability of Business Excellence Models in the restructuring of State-Owned-Enterprises.

Structural equation modeling was used to test the objective. Basing on the research conceptual framework, the business excellence model that was considered in this research was operationalized by three constructs, that is, culture excellence, change strategy and macro-techniques.

It was established that BEM is applicable in the restructuring of SOE as was summarised by the results of the regression tests conducted. There was enough statistical evidence that the BEM did have a significant impact on organizational performance.

From the findings, cultural excellence had the greatest regression coefficient, followed by change management, and the least being macro-techniques. From this basis, it can be argued that of the three dimensions of the business excellence model, the most significant factor is culture excellence, seconded by change management, the least important factor being macro-techniques.

5.2.5 To identify turnaround strategies appropriate for SOE’s restructuring under a business excellence framework

From the descriptive statistics, *capital injection* was extracted as being the most ideal. *The adoption of a customer-centric strategy* was rated the second. On the other hand, the other aspects that were positively rated related to *the adoption of multi-strategies* e.g. re-organisation of structure and assets, statutory amendments, the re-equipment of NRZ through acquiring and refurbishing wagons, locomotives, along with *influencing the ideologies, philosophies, beliefs and attitudes of NRZ employees in the rebranding of NRZ*. 
Further investigation using Principal Component Analysis established four key broad factors as being the ideal turnaround strategies. The first broader strategy related to the commercialisation of NRZ. In line with findings of Zayyad (2007), Ojo (2011) and (Gass, 2013), the strategy involves privatization of publicly owned entities such as NRZ, as well as the opening of the national rail network to private players. The second strategy related to the need for organizational change, with the principal items being the eradication of interference with management decisions in operations of NRZ, and the influencing of the ideologies, philosophies, beliefs and attitudes of NRZ employees in the rebranding of NRZ. The third was capitalization, that is, the injection of new capital in the operations of NRZ and the re-equipping NRZ. As was found by Mufuya & Chirimubwe (2017), respondents identified that recapitalisation is a key restructuring strategy that should encompass attracting suitable investing partners and embarking on infrastructure overhaul of NRZ.

5.3 Research conclusions
In response to the research questions raised in Chapter 1, the researcher made several conclusions in respect of each research question. The research conclusions are shown in the ensuing sections and are arranged sequentially in the thematic format in which the research questions have been raised.

5.3.1 What is the impact of culture excellence in the organisational performance of SOE’s?
The researcher makes the conclusion that culture excellence has the most significant positive impact on the overall performance of the organisation through the aspect of knowledge sharing that allows stakeholders to be engaged in productive conversation and the building of strong interpersonal relationships. To achieve that, organisations should rely on integrated communication channels as important strategy for sharing knowledge among stakeholders. Key among the integrated communication strategy are the use of advertising, personal selling, direct marketing, sales promotion and public relations.

It is also the researcher’s conclusion that an organisation-wide commitment towards excellence impacts positively the overall performance of an organisation. The journey
to achieving excellence begins within individuals and is sustained by the commitment of everyone within that organisation. Individuals that bring about excellence must demonstrate super competitiveness, a never-ending belief in achieving better results and a default disposition that excellence is not an end but indeed the journey.

Finally, the researcher makes the conclusion that leadership is the overarching component that drives excellence for achievement of improved organisational performance. To this end, it is imperative that organisations design performance assessment criteria that focuses on leadership performance. Leadership is the driver of all the enabling systems and processes that enable the organisation to achieve the result matrices.

5.3.2 What effect does change management strategies have on organisational performance of SOEs adopting BEM?

The researcher makes the conclusion that cross functional teams dealing with a wide variety of issues e.g. customer complaints have the most positive effect on the organisational performance of SOE adopting a BEM. The cross-functional teams can be in the form of task-forces, quality circles etc., the common thread is that they should be empowered with adequate decision-making powers to operationalize their decisions at whatever level they are within the organisations hierarchy. This calls for developing capabilities in the art of working together i.e. working together within departments, interdepartmentally, across the organisation, with external parties e.g. supply and retail partners.

The change management strategy of being able to diagnose accurately change forces affecting an organisation has a positive effect on SOE’s performance. Forces impacting the NRZ include indirect competition arising from reliable and swift road bulk cargo carriers, lack of financial capabilities to fund retooling, government policy directions etc.

The researcher concludes that the strategy of implementing flexible apposite change management principles positively affects organisational performance. The researchers’ proposed change management principles encompass beginning with a proper diagnosis
of factors afflicting NRZ, communicating the urgent need for change amongst stakeholders, mobilizing a well-balanced competent team to lead the change, removing possible sources of resistance to change, developing a comprehensive effective main change plan, continuous measurement of performance and finally institutionalising the change achievements.

5.3.3 What influence do macro-techniques of quality management have on organisational performance of SOEs that have adopted a BEM?

The researcher makes the conclusion that the macro technique of BPR has the most positive significance on the organisational performance of SOE’s. BPR is a radical strategy that assumes a dissatisfaction with the current process and considers it irrelevant. Such a clean slate perspective enables SOE’s decision makers to disassociate themselves from current processes, rather focusing on a new process. To this end, investment in creativity enabling information communication technology has big scope in improving organisational performance of SOE that have been lagging in adopting ICT’s. ICT’s do have the ability of integrating operations in the process reducing on redundancies, facilitating strategic planning and improving on communication capabilities across the organisation.

The researcher concludes that TQM as a macro-technique of quality management that adopts a holistic approach makes it appropriate as a tool of improving performance of SOE’s. TQM is a holistic approach to quality management which positively influences organisational performance. The researcher concludes that TQM is a company-wide tool that focus backwards and forwards as well as upwards and downward.

The researcher makes the conclusion that RBM is another macro-technique of quality management which has a positive influence on performance levels of SOE’s. The tool is a quality management strategy by which processes, outputs and services contribute to the achievement of clearly stated expected activities and objectives. It is focused on achieving results, improving performance, integrating lessons learned into management decisions and monitoring and reporting on performance. The RBM assessment criteria achieve superior rewards due to its ability of forcing users of knowing what and how to measure desired outcomes. This provides a platform that instills strategic thinking mentality across the whole organisation.
5.3.4 **Is the concept of Business Excellence applicable in the restructuring of SOE’s?**

The researcher makes the conclusion that indeed BEM is applicable in the restructuring agenda of SOE’S. With respect Business Excellence Model as a construct, the research concluded that the principal sub-constructs that are identified with the model, that is, culture excellence, change management, and the macro-techniques are significant.

While other factors that can improve organizational performance exist, the fact that a greater proportion of the variation in organizational performance was explained by the implementation of the Business Excellence Model. The researcher believes that without the adoption of the Business Excellence Model, the turnaround process for organisations might not be so effective.

Furthermore, the researcher concludes that the most significant Business Excellence Model sub-construct that has the greatest impact towards organizational performance is culture excellence, seconded by proper application of change management principles, and the least being the macro-techniques of quality management.

5.3.5 **What are the appropriate turnaround strategies for SOE’s undergoing restructuring under a business excellence framework?**

The researcher makes the conclusion that recapitalisation is a crucial turnaround strategy for SOE’s undergoing restructuring processes. This financial strategy of recapitalisation positively alters an organisation’s financial structure to weather through a rough financial situation or to help improve the company's financial stability.

The researcher concludes that refocusing the thrust of SOE’s on customer satisfaction is a profound turnaround strategy. Customer centricity allows for the formulation of superior customer value proposition that solves problems faced by customers, increase product and service features thus creating benefits associated with each service feature and finally lead to the differentiation of products and services.

Lastly, the researcher concludes that rebranding is imperative as a strategy to support restructuring of SOE’s. To this end it is important that restructuring efforts need to be
carefully packaged to capture and communicate the positives emanating from such initiatives. This calls for an integrated rebranding drive that should start from internal rebranding. This calls for influencing the ideologies, philosophies, beliefs and attitudes of everyone at NRZ i.e. from employees, to policy makers. The rebranding should then extent outwards through the visible artefacts like uniforms, new company logo, colours etc.

5.4 Validation of Research Hypothesis
In validating the research hypothesis stipulated in Chapter 1, the researcher conducted ANOVA tests in Chapter 4 in respect of each research objective. The researcher made the broad research hypothesis that “The Business Excellence Model positively leads to improved organisational performance”. This research hypothesis was tested using the research questions originating from each objective and the results of the ANOVA tests on each objective rejected the null hypotheses and supported the alternative hypotheses. Therefore, the researcher concludes that the research hypothesis which states that “The Business Excellence Model positively leads to improved organisational performance” has been proved correct.

5.5 Research recommendations
The research has provided empirical information on the role of the BEM towards the restructuring and improved performance of SOE’s with the case being NRZ and the researcher makes policy, practitioner and academia recommendations as shown in the ensuing sections.

5.5.1 Policy recommendations
Recommendaion 1: The researcher recommends for the urgent adoption of a national business excellence model for use within the SOEs inorder to achieve higher performance.

Recommendaion 2: The researcher recommends to the policymakers for the removal of subsidies in the pricing mechanism and allow for the charging of commercially viable rates to be levied on services provided by the NRZ. The recommendation is in line with the finding of commercialisation as a key aspect in the restructuring efforts.
Recommendation 3: The researcher recommends for policymakers to lead in the framing of a policy framework that guides in the selection, adjudication and engagement of viable investing partners. The policy framework should provide for clear due diligence and guide on the monitoring mechanism of the performance of the investing partners. It is imperative that the policy framework gives confidence to potential investors and help to attract suitable investors. To this end, there should be removal of current bureaucratic processes inhibiting ease of attracting foreign direct investments.

5.5.2 Practitioners recommendations

Recommendation 4: The researcher recommends for the skills development and hiring of personnel with adequate technical competence to adjudicate, engage, monitor and assess implementation of restructuring programs at NRZ. On the same note, it is recommended for the development or outsourcing of appropriate leadership skills that are subjected to objective performance assessment. The aim is to create better managed, more commercially-responsive and market-led railways. To this end, skills development in areas of business excellence, contract negotiations and finance mobilization is strongly recommended as the management tool has the potential to equip management with a holistic set of capabilities to implement successful and sustainable reform programs. Capable management skills are a prerequisite to a successful turnaround of the parastatal.

Recommendation 5: It is imperative that NRZ draft and adopt a guiding change manual that articulates the processes that needs to be followed to achieve the desired change objective.

Recommendation 6: The researcher recommends for the adoption of an enterprise wide information management system so that management, the Board of Directors and the MoTID policy makers are alerted of any deviations from set targets allowing for corrective action to be taken timeously.

Recommendation 7: The development of a participatory type of leadership is recommended. This approach allows for knowledge sharing, individual and group
participation in decision making, cultivation of trust, allaying of fears and anxiety concerning the ongoing changes, agreement of performance expectations and monitoring framework and finally the collective realisation and adoption of excellence by everyone at NRZ.

Recommendation 8: As a final recommendation to the practitioners in all SOE’s, attention is requested on the need to develop more efficient enterprise-wide systems. This calls for the adoption of business process reengineering.

5.5.3 Academia and Research Fraternity recommendations

Recommendation 9: It is recommended that academia research on BEM implementation through time.

5.6 Area of further studies

This research was looking into the state of SOE’s through a case study of NRZ. Other studies should look into the same topic but focusing on different SOE’s. This was a holistic treatise and comparison can be achieved so that the research outcomes can be generalized to all the state-owned enterprises.

5.7 Chapter summary

The chapter has given conclusions and recommendations to the research conducted. This has been delivered through a commentary on the achievement of research objectives where the researcher notes attainment of statistical significance on the respective objectives. Extensive discussion ensued on research conclusions where the researcher concluded positive significance of constructs of business excellence to organisational performance i.e. culture excellence, change management strategies, macro-techniques of quality management. Overall, the researcher concluded that business excellence has positive significance on organisational performance. The chapter rounded off by providing recommendations to policy makers, practitioners i.e. various decision makers in SOE’s and lastly to academia. The researcher concluded by highlighting possible areas of further studies.
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Dear Sir/Madam,

Ref: Request for information for a research

The researcher is a Master in Business Leadership (MBL) final year student at Bindura University of Science Education. He is undertaking a research study titled “An investigation of the applicability of Business Excellence Model as an effective strategy to turnaround State-Owned Enterprises for improved performance: A case of National Railways of Zimbabwe”.

This topic is of significant importance to the State Owned Enterprises especially the National Railways of Zimbabwe which has the desire to uplift itself from its challenges of a chronic poor performance.

You have been selected to be amongst the few respondents who will assist on the study. You are therefore requested to assist by giving your responses to the attached questionnaire. Kindly respond to all the questions as candidly as possible by simply putting a tick in the appropriate box which match your feelings to the statement on the questionnaire attached.

The information collected is solely for academic purposes. It is being collected in partial fulfilment of the requirements of the MBL program at Bindura University of Science Education.
Please feel free to contribute as freely as you can as no disclosure of your responses will be made to any third party without your permission.

Should you have any queries or challenges in completing this questionnaire please do not hesitate to contact the researcher using the contact details shown below.

Your assistance in this matter would be greatly appreciated.

Joram Maganga
MBL Student Number B1645433
Email address: jmaganga@gmail.com
Cellphone : +263 777 724 526
: +263 712 236 732
APPENDIX B
SELF-ADMINISTERED SURVEY QUESTIONNAIRE

INSTRUCTIONS:

i)  Kindly answer all questions fully and honestly.

ii) Where boxes are provided indicate your answer by ticking the appropriate box.

iii) Do not write your name or identity on the questionnaire.

SECTION A: DEMOGRAPHY

1. Please state your gender.

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2. Age group?

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<tr>
<td>20 to 30 years</td>
<td>31 to 40 years</td>
<td>41 to 50 years</td>
<td>51 to 60 years</td>
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3. How long have you been employed by the National Railways of Zimbabwe?

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<td>1 to 5 years</td>
<td>6 to 10 years</td>
<td>11 to 15 years</td>
<td>16 to 20 years</td>
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4. Department stationed in within NRZ?

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<th>If none of the mentioned, state name of department</th>
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<tr>
<td>Corporate Services</td>
<td>Operations</td>
<td>Financial services</td>
<td>Engineering</td>
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5. Designation?

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<tr>
<td>Executive</td>
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<tr>
<td>Officer</td>
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<td>1 to 5 years and above</td>
<td>21 years</td>
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SECTION B: DATA GATHERING

1.0 The following are the statements to analyse the impact of culture excellence in achieving sustainable business transformation at National Railways of Zimbabwe (NRZ).

**KEY:** Strongly Disagree = SD; Disagree = D; Neutral = N; Agree = A; Strongly Agree = SA

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<th>VARIABLE</th>
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<tr>
<td>1.0 CULTURE EXCELLENCE</td>
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<td>Please indicate how much you agree or disagree with each of the following statements;</td>
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<tr>
<td>1.1 A commitment to be excellent by everyone in the company leads to improved organisational performance.</td>
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<td>1.2 A focus on difficult-to-measure items such as people, quality, and customer service lead to the attainment of improved organisational performance.</td>
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<td>1.3 Developing a culture at NRZ that allows for easy questioning of authority for the purposes of improving processes and systems will lead to improved organisational performance.</td>
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<td>1.4 Developing a culture at NRZ that allows for participation in decision making through employee involvement and consultation will lead to improved organisational performance.</td>
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<td>1.5 The adoption of an organisational culture that promotes knowledge sharing, interpersonal relationships, employee motivation and good communication structure can lead to improved performance of NRZ</td>
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<td>1.6 Establishing a shared strong vision and mission; forming shared policies and strategies and developing people will lead to improved performance at NRZ.</td>
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<td>1.7 The adoption of business excellence model which follows leading models e.g. American, European and Singaporean excellence models will raise business performance and profitability at NRZ.</td>
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<td>1.8 A focus on core business concepts such as leadership and constancy of purpose; management by processes and facts; customer focus; results orientation; continuous learning and innovation can lead to improved performance of NRZ.</td>
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<td>1.9 Adoption of a performance assessment criteria that focuses on leadership performance; strategic planning prowess; operations focus; customer focus; information management; workforce focus and resource management can result in NRZ achieving improved performance.</td>
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<td>1.10 Adopting a business excellence model with a simplified assessment criterion, adequate infrastructure; streamlined paperwork and lean procedures can result in improved performance by NRZ.</td>
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2.0 The following are the statements to investigate the effectiveness of strategies used in managing change within the organisation.

**KEY:** *Strongly Disagree = SD; Disagree= D; Neutral= N; Agree=A; Strongly Agree=SA*

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<tr>
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<tr>
<td>CHANGE MANAGEMENT STRATEGIES</td>
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<td>2.1 Implementation of effective change management principles during restructuring is imperative for the attainment of improve organisational performance.</td>
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<td>2.2 Understanding forces of change affecting NRZ will lead to improved organisational performance.</td>
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<td>2.3 A strategy that <strong>simultaneously</strong> mitigate the impact of restraining forces while building on driving forces can lead to improved performance of NRZ.</td>
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<td>2.4 Improving individual employees financial and non-financial rewards and benefits can result in improved performance at NRZ.</td>
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<td>2.5 Empowering teams to make decisions that affect their work environment will lead to improved organisational performance.</td>
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<td>2.6 The adoption of a transformational change pathway rather than incremental or transitional can lead to organisational performance.</td>
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<td>2.7 A strategy which seeks to understand all the factors that are affecting NRZ can lead to improved organisational performance.</td>
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<td>2.8 An effective implementation of strategies of managing resistance to change such as education, participation, facilitation, negotiation and coercion can result in improved organisational performance.</td>
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<td>2.9 Implementing appropriate change communication, allowing feedback and creation of adequate time for feedback processing during the change process can improve performance of an organisation</td>
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3.0 The following are the statements to identify additional macro-techniques that complement business excellence.

Scientific research has proposed several business techniques aimed at improving efficiency and effectiveness of business processes. To what extent do you agree that the following macro-techniques are complimentary to BEM and will be useful in improving the fortunes of NRZ.

**KEY:** *Strongly Disagree = SD; Disagree = D; Neutral = N; Agree = A; Strongly Agree = SA*

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<thead>
<tr>
<th>VARIABLE</th>
<th>Macro Techniques of quality management</th>
<th>1</th>
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<tbody>
<tr>
<td>3.1</td>
<td>The application of benchmarking as a process involving copying of the secrets of success by learning best practices from the best player in that industry will result in improved performance of State Owned Enterprises.</td>
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<td>3.2</td>
<td>The discovery of innovative methodologies arising from benchmarking processes will contribute to the achievement of improved organisational performance.</td>
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<td>3.3</td>
<td>The introduction of radical changes to the business processes that drive the performance of SOE’s will lead to dramatic improvement in business performance.</td>
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<td>3.4</td>
<td>Inadequate knowledge in managers about organisations they are tasked to run will not lead to improved organisational performance.</td>
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<td>3.5</td>
<td>The acquisition of modern information technology systems to be used in scheduling operations, signaling, ticketing and accounting processes can result in improved organisational performance of NRZ</td>
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<td>3.6</td>
<td>The implementation of Total Quality Management system such as ISO Certification at NRZ will lead to improved organisational performance.</td>
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<td>3.7</td>
<td>Treating quality improvement as a never-ending quest can result in improved organisational performance.</td>
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<td>3.8</td>
<td>Adoption of Results Based Management system as a performance management tool will lead to improved performance of NRZ.</td>
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</tbody>
</table>
4.0 The following are the statements to identify turnaround strategies relevant for SOE’s under a framework of Business Excellence.

*KEY*: Strongly Disagree =SD; Disagree= D; Neutral= N; Agree=A; Strongly Agree=SA

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
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<tbody>
<tr>
<td>4.1 Privatization of publicly owned entities such as NRZ is critically important for developing economies such as Zimbabwe.</td>
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<td>4.2 Deregulation i.e. opening up of the national rail network to private players would lead to greater organisational efficiencies.</td>
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<td>4.3 Adoption of multi-strategies e.g. re-organisation of structure and assets, statutory amendments and rationalisation of operations will result in improved business performance of NRZ.</td>
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<td>4.4 Interference with management decisions in operations of NRZ leads to organisational inefficiencies of SOE.</td>
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<td>4.5 The adoption of a customer driven culture at NRZ would lead to an improved quality of service and improved business performance of the entity.</td>
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<td>4.6 The injection of new capital in the operations of NRZ has potential of improving its performance.</td>
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<td>4.7 Re-equipping NRZ through acquiring and refurbishing wagons, locomotives and signaling equipment under existing management will lead to improved organisational performance.</td>
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<td>4.8 NRZ does not need to enter into management contracts with seasoned leading global partners who are experts in efficiently running railway companies for improvement of performance.</td>
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<td>4.9 Rebranding NRZ will lead to improved organisational performance.</td>
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<td>4.10 Influencing the ideologies, philosophies, beliefs and attitudes of NRZ employees in the rebranding of NRZ will lead to the attainment of improved business performance.</td>
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</table>

*END*

*Thank you for participating.*